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TORONTO, CANADA, OCTOBER 1, 1868.

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### The Month.



OCTOBER.

It has been well observed, "is regal, and walks the woods royally with great show of purple and crimson, while a veil of golden mist streams from the turrets of the queenliest of the months." The mean temperatures for this month are yet, similar to those for May, as will be seen by comparing the following table with that which appeared in our article on that month.

Stattford	47° 93'
Hamilton	50° 12'
Barrie	48° 82'
Toronto	49° 09'
Belleville	49° 58'
Montreal	46° 78'
Quebec	46° 59'
St John, N B	44° 35'
Halifax	45° 09'

But if there be similarity between May and October in temperature, there is a very decided dissimilarity in other respects. The air is not Spring-like. It is not charged with the juiciness and stimulus that distinguish the season of growth. There is no show of young shoots, nor smell of wood and soil. Instead of the bursting forth of activity and life throughout nature, there is the hush of repose and the sense of leisure. It is plain that the year is composing itself to rest after its appointed season of toil and bustle. Peace broods upon the hills and valleys. Beauty shines through the mists of morning, and golden glory paints the sunset at even. The forests are decked in a coat of many colours, and all nature puts on holiday attire. Very graphically does Henry Ward Beecher portray this month in one of his "Star Papers." "October! Orchard of the year! Bend thy boughs to the earth, redolent of glowing fruit! Ripened seeds shake in their pods. Apples drop in the stillest hour. Leaves begin to let go when no wind is out, and swing in long wavering to the earth, which they touch without sound, and lie looking up, till winds rake them, and heap them in fence corners. When the gates come through the trees, the yellow leaves

trail, like sparks at night behind the flying engine. The woods are thinner, so that we can see the heavens plainer, as we lie dreaming on the yet warm moss by the singing spring. The days are calm; the nights are tranquil. The year's work is done. She walks in gorgeous apparel, looking upon her long labour, and her serene eye saith 'It is good.'" This description is peculiarly applicable to the Fall season of Canada, and nowhere in the world, perhaps, is the splendid colouring of the dying foliage at this period of the year so striking or beautiful as in our Canadian forests. The marvellous hues that give our woods their autumnal beauty, so rich that a painter can scarcely depict them faithfully without laying himself open to the charge of extravagance, are chiefly due to the prevalence of the maple in our woodland scenery. No other tree can vie with this in the variety and loveliness of the tints which the foliage assumes in its departing glory. The oak, the elm, and beech, with their appropriate drapery add to the charm and grandeur of the scene. Nature puts on a royal robe well befitting the solemn repose that precedes the sterner reign of winter.

But amid this general restfulness, the farmer must not suffer his energies to flag. It is not for him to think of repose yet. There are autumn crops to harvest, and every endeavour must be made to house them in good order. The potatoes must be dug, and happy is he who has one of those newly-invented labour-saving machines known as "potato diggers." If there be any field-work more fit for a horse than a man, it is this tiresome, laborious, back-breaking toil of getting up the potatoes. It is important that fine weather be chosen for potato-digging. They will be less likely to rot if put away dry, and besides they are cleaner and better every way. They should be put into cool and well ventilated cellars, or into pits provided with air and drainage. The same observations apply to other root crops. Turnips will continue to grow through October, and as they will stand considerable frost without injury, harvesting may be postponed until November. Fruit must be gathered this month, and its value will depend much on the care exercised in the process. It should be hand-picked and handled as tenderly as eggs. Orchard trees are often bruised and injured by the inconsiderate use of ladders. This should be avoided, and at all seasons it should be remembered that a tree is a living thing, not to be treated roughly with impunity. Various improvements may be advantageously undertaken this month. We generally do our road work in spring, but in the New England States it was formerly, and for aught we know is now, done in autumn. Better still perhaps it would be to do something at the roads at both periods. We greatly need in all parts of the country a more thorough system of road-making. We go on shovelling the accumulation of the ditch and road-side into the carriage track as though decayed leaves and old turf would

make good footing for iron-shod horses and iron-tired wheels. Rarely is gravelling and metalling undertaken except when a chartered company takes a stretch of road in hand to make money out of it, and then farmers pay for their whistle, when they might have had it for next to nothing were a wise system of statute labour pursued. The fact is, we are too niggardly of time, toil, and outlay on our roads, and do not properly appreciate their value, and the importance of their being well constructed and kept in good repair. October is also an excellent month for all such operations as grading, cleaning, trenching, draining, planting, or building stone wall. There is no better time for cutting timber than just when the leaves are ready to drop from the axils of the newly formed buds of the year to come. Firewood cut this month is represented to be more valuable for heating purposes than when felled at any other season, and cedar or other wood wanted for rustic work will hold its bark better and be more durable if cut in October. Those who prefer to plant their shade or fruit trees in the fall, should have a care not to defer it too late. It is not needful or best to wait until leaves have actually fallen. If there is full ripeness of wood, and the leaves are beginning to drop, it is quite time to transplant if it is to be done in autumn. But we confess ourselves decidedly in favour of spring planting in the latitude of Canada. As observed last month, it will pay to bestow early and thorough attention on fattening stock. Their growth should never be checked by exposure to cold or by short allowance of food. It is advisable also to have all store and working animals in as good condition as possible at the beginning of winter. They will keep more easily for it, and come out in better heart when spring opens. Sheds, barns, and buildings of all kinds must be put in thorough repair before winter, or the comfort of stock will be diminished and the consumption of food increased. This is a good month for out-door painting. It is said to stand better if applied at this period than either during spring or summer. Let the work be done whenever it may, it is labor and expense well bestowed.

A variety of garden operations may be advantageously performed in October. Gathering and stowing of vegetables, manuring, ploughing and spading, that the soil may be mellowed by winter frosts, taking out of the ground bulbs that are tender, and planting hardy ones for early spring flowering; these, and various other odd jobs, will make the garden as well as the farm a busy scene during the present month.

Final preparations for winter must now be made in the apiary. Whatever shifting, uniting of weak stocks, feeding deficient stocks, and the like, may require to be done, should be delayed no longer. Hives should only be opened on warm, sunny days now, if any internal attention is needed, as bees are easily chilled, and do not quickly recover the effects of cold.

## The Field.

### Agricultural Productions at the Provincial Exhibition.

THE Agricultural and Horticultural productions were exhibited in a spacious shed erected for the purpose near the Crystal Palace Building. For various reasons it was late before they were collected together, and before they were well in place the judges had to commence work. During the time they were thus occupied on the second day of the fair, all other visitors were excluded from the building, and it was not till some time on Wednesday that their task was completed. By that time the crowd of visitors was so great that a leisurely examination was not practicable. It is only possible therefore to give a general account of this department.

The display of grain, as was to be expected from the character of the past season and harvest, was excellent as regards the quality of the cereals. It is to be regretted, however, that there is not greater competition in what is the main business of every farmer. The premiums, especially those of the Canada Company, and the Association's prize for the best twenty-five bushels of wheat, are on a liberal scale, yet, if we are not mistaken, there were very few competitors for these prizes. This is the more to be regretted, inasmuch as the larger quantity required gives really a better test of the quality of the crop, and we are not sure that it would not be a great improvement on the present system to substitute rewards for the best field of any produce, in place of the best bushel, or the best eight or twelve samples. A market gardener can raise tremendous roots on a single rood of land, by an amount of culture and expenditure of fertilizers which the farmer could scarcely imitate on the wider scale of his acres. We would not, however, disparage the good sample in limited quantity. To say nothing of its being the most convenient, if not sometimes the only practical, method of display and competition, these experiments on a small scale teach us what can be done by labor and manure, and point the farmer in the right direction towards success in his more extended field. Still, we think an addition might be made with advantage to the present list of prizes, and awards made for the best field of any crop, the best orchard, or the best cultivated farm.

The recent Exhibition afforded evidence of the capabilities of the country for wheat raising, the samples of this grain being most of them of superior quality. Mr. John Hamilton, of Strabane, was well entitled to the honor of winning the Canada Company's prize for the best twenty-five bushels of wheat. He gained also the first prize for the best two bushels of both white and red fall wheat. The berries in all the samples were remarkably fine, plump, even, and of good color. If such grain were exclusively used for seed, our wheat returns would soon show a very different result from that of recent years. The second prize given by the Association was gained by Thomas Turnbull, of South Dumfries, for twenty-five bushels of Diehl wheat, which compared very favorably with any in the Exhibition. J. McEver, of Hamilton Township, who last year obtained this prize of the Association, has the third awarded to him, for twenty-five bushels of Soules wheat. Six years ago, we are informed, he purchased sixty-seven lbs. of seed wheat, and obtained as the produce in the following year four and a-half bushels, which he again sowed, and from the yield he gained the Association's second prize. In the next year (1866) he gained the third prize for this same variety; and in 1867 was again successful with it in obtaining the second prize, while the produce of the same seed obtained in other hands the first or Canada Company's prize, the grain having been put out a little greener than in Mr. McEver's field. We would congratulate him on his success, and trust that he will go on, not perhaps with the same seed, but with the same perseverance and careful culture, till he has gained the first place, which he has hitherto failed to reach. There were other good samples of fall wheat exhibited. Joseph Rymal, of Hamilton, obtained the second prize for two bushels of white wheat, scarcely at all inferior to that shown by Mr. Hamilton. It is, however, unnecessary, and

would occupy far too much space to specify individual samples, especially as the prize list already published indicates in a great measure the meritorious exhibitors. The samples of spring wheat, notwithstanding the drought, seemed up to the usual mark.

The barley was good, nearly all of a bright colour, though some of it was lacking in weight. That shown by Allan Bond, of Storrington, was especially fine. There was not much competition in winter rye, but the samples were good.

The oats did not seem up to the usual standard, though some of the bags, both of the white and black variety, were, considering the season, very fine.

The samples of peas showed less of the effects of the long drought than would be expected, but there can be no doubt the yield per acre would tell a different story.

Of field beans there was only a small but fair show.

There were some really fine samples of Indian corn, some of the yellow varieties being especially worthy of note. Some specimens shown by Thomas Eastbrook, of Flamboro, and H. J. Brown, of Niagara, were particularly good.

The display of field seeds of various kinds was very limited, though this is a department that deserves every encouragement. It is one of great importance, and by no means the least lucrative field of agricultural enterprise. Mr. A. Thompson, of East Flamboro, obtained the first prize for the best bushel of timothy seed, and Mr. John Smith, of Burford, for clover seed. Samples of Alsike clover were shown by the President of the Association, T. Stock, Esq., of Waterdown, and F. M. Thomas, of Brooklin—the latter gaining the first prize. C. Holt, of Whitby, is another diligent cultivator in this department, and gained prizes for turnip, carrot and mangel wurzel seed.

There were fifteen bales of hops exhibited, for the best sample of which W. H. Bailey (of London) gained the first prize.

The display of field roots was, though not large as to quantity, really magnificent and astonishing in the size of some of the specimens. Mr. W. Burgess' display of mangel wurzel especially deserves emphatic notice. His success in raising these gigantic roots is due, we understand, to the application of night soil to the crop, and farmers as well as market gardeners should take note of the unappreciated value of this too much wasted fertiliser. The Chinese and Japanese should teach the "barbarians" of Canada a lesson in this respect. There were other splendid samples of the several varieties of mangolds, but none equal, taken altogether, to the collection of Mr. Burgess. In turnips, purple top, green top and skirvings were also exhibited. The grey stone and yellow Aberdeen were also represented, though slenderly as regards the number of exhibitors. T. Stock, Esq., of Waterdown, was among the prize takers.

Field carrots, especially the white Belgian variety, were shown whose dimensions would seem to belie our recollections of the protracted drought. We are sure they could not have been raised during the past season without special care in the preparation of the soil and the after culture. The same remark applies to the display of parsnips and of sugar beets, of which Mr. Burgess, amongst others, showed fine specimens. There were a few good samples of chicory root. Mammoth squashes, as usual, attracted the astonished gaze of the passing visitor.

A few good specimens of broom corn were exhibited, and one especially good sample by T. Eastbrook, of Flamboro.

The Canada Company's prize for scutched flax was awarded to H. Willoughby of Otonabee, and that of the Association to H. Calcott, of Monaghan. The Canada Company's prize for hemp was not awarded, as the specimens, though good in quality, were not up to the required quantity.

The display of potatoes, though very meritorious, considering the season, was below the standard of former exhibitions, and this falling off was especially noticeable in the department of garden vegetables.

In the same department were shown some good samples of oil cake by Lyman & Co., and a few barrels of bonedust of various degrees of fineness were exhibited by Travuski, Bros., Hamilton.

### Implements at the Exhibition.

THE space allotted for agricultural implements was ample, and mostly on the open ground, though a few were collected in a shed, erected for the purpose. Altogether, there was a larger and, perhaps, a better display in this department than has ever before been brought together at a Provincial Exhibition. In most of the sections there was considerable competition, while some articles stood alone, not having been contemplated in the prize list, and shown

as extra entries. In some sections, again, the competition was small, or *nil*.

Near the main entrance to the show grounds was the space allotted for Reapers and Mowers, which were shown by themselves—the other agricultural implements being displayed to the north and west of the building. Among the Mowers and Reapers, II. A. Massey sent from his extensive works at Newcastle a beautifully finished combined machine (Wood's patent); also a separate Reaper and Mower. These are all well known to the agricultural community of Canada, and the high appreciation in which they are held may be gathered from the fact that they have now been manufactured for several years in Canada, and that last year alone Mr. Massey made upwards of 500. For a still longer period they have been favorably known in the United States, where they take the lead, more than 23,000 having been made last year. Those manufactured by the Newcastle works gained first prizes at previous Provincial Exhibitions of 1863, 1866 and 1867; and at the World's Exposition at Paris last year, Wood's reaper gained the highest distinction, and distanced all others in competition. An excellent mower and reaper was shown by John Watson, of the Ayr Foundry, with a single reaper from the same place. Benjamin Bell, of St. George, sent a combined Mower and Reaper, with F.A. Ball's Ohio attachment for mowing. The reaper can either be used as a self-reaper or not, at pleasure. It cuts six feet in width, but the draught is said to be comparatively light, having been found under 200 lbs. at recent trials. John Scott, of Caledonia, was another of the numerous competitors in this section, and also sent a mower, and combined machine. The wheels in this are wider than most other machines, by eight inches, and great steadiness is gained in consequence. John Forsyth, of Dundas, exhibited two single mowers, and three combined machines on the Ball's Ohio principle, with some improvements of his own. Mr. Collins, of Guelph, showed his patent grain harvester. F. W. Glen, of Oshawa, from the Joseph Hall Works, showed the Dick's self-reaper, a combined mower and reaper, also a Wood's self raker. Yales & Co., of St. Catharines, exhibited a "Cayuga Chief" combined mower and reaper; also a mower, and a third implement with a self-raking attachment. In these reapers the pole is connected to the machine by a hinge, which relieves the horses' necks from considerable weight. They are also constructed with a revolving action to the finger bar, by which they can be made to cut close to the ground, when desired, or the points of the fingers can be raised up so as to clear rough ground and cut higher. This change is not effected by raising and lowering the finger bar and sickle perpendicularly, but by giving it a rotary movement on its axis, so that the points chiefly are elevated or depressed. Haggart & Brothers, of Brampton, showed a Ball's Ohio Reaper, with Dodge's self-raking attachment; also, a combined implement without the self-raker, and a simple mower. The rotary motion is also given to the finger bar in these machines. L. D. Sawyer & Co., of Hamilton, exhibited two combined machines, and also a mower. Lawrence & Co., of Palermo, had a Ball's Ohio combined, with self-raker, which is noteworthy, among other excellencies, for an improvement in the adjuster for raising the finger-bar, which is done by a wheel and axle instead of a lever, and considerable power thereby gained. Paxton, Tate & Co., of Port Perry, showed the Marsh Harvester, a machine which has been fully described in the CANADA FARMER, and of whose merits we entertain a high opinion. It was to us a matter of surprise that it was not in some way distinguished in the award of the judges. The successful competitors—and the remark just made is no way disparaging to them—were Messrs. Massey, Glen, Haggart, Lawrence, Yale and Forsyth.

There was quite an imposing array of threshing machines, and second to none among these was Abell's splendid and beautifully finished thresher and separator, which has already gained such distinction, and given the Woodbridge work a high reputation in this department. The machine has been so often fully described before that it is scarcely necessary again to advert to its advantages. The side delivery of the straw carrier is peculiar to it. The guarding of the gearing and coupling is almost complete, and in this respect the only machine that rivals, if it does not eclipse it, is Hoggert's. The whole is a model of good workmanship and well-contrived machinery. The power used is Pitt's power, and the shaft that goes through is furnished with couplings at each end, so that the machine can be run from either side. Mr. Abell was again the winner of the first prize.

Haggart and Bros. showed an excellent machine with several recent improvements introduced, consisting chiefly in contrivances for economizing

power and protecting the gears, so as to diminish the liability to accident. In the first place, the wheels that drive the cylinder and other parts, revolve outward, instead of inwards, so that the fingers or die set an attendant could not be caught between them while in motion. The machinery is protected by a wooden sheath, within which it revolves, thus affording complete protection from those terrible catastrophes which sometimes happen from the dress being caught. Additional security is also gained by the manner in which the couplings are guarded, so that there are no projecting bolts. There is also a very convenient arrangement for delivering the grain, a point often neglected, and this part is efficiently screened from dust and chaff blowing back into it, an accident which often happens in other machines to such an extent as to neutralize in a great measure the good effects of the separator. Another convenience provided by this inventor is a seat for the driver, which can be attached to the power or not at pleasure. For this excellent machine the second prize was awarded. Glen, of Oshawa, showed their threshing machine known under the name of the "Farmer Boy Friend," and Sawyer & Co. exhibited another, manufactured by them at their Hamilton works. In this machine the shaking motion communicated to the shoe is equally applied at each end, so as to secure an even lateral motion, in place of the oscillating movement usually observed. Their power is also made very secure by a wrought iron horizontal bar, which gives great steadiness to the working. The same firm showed an improved drag saw, and two kinds of chaff and straw cutters, one for hand use, and the other for either hand or power. Maxwell & Whitelaw showed their well-known machine called the Champion Thresher. The power used to drive this machine is the Planet power, and is entirely constructed of iron. They showed, besides, a small and very convenient power for use on the farm, which will be found well adapted for a number of purposes, such as sawing wood, cutting straw, &c. This firm exhibited other implements, which are noticed in their place.

Near these, the steam-engine of C. H. Waterous & Co., from the Brantford Works, was in full operation, and attracted immense crowds of interested spectators. This beautiful engine is constructed on the same principle as that exhibited last year at Kingston. It is sixteen-horse power, and is adapted to be used either as a stationary or portable engine. With this motive power were set at work a pony saw-mill, a lath mill and bolter, Hall's patent shingle mill, and a variety of grain-crackers and corn and cob-crushers. Within the same railled area this firm also exhibited a fine assortment of inserted teeth and perforated teeth saws. The Brantford engine and its accompaniments formed quite a feature in the event as it has done in former Exhibitions.

Not far from this centre of attraction was a novel machine invented by the enterprising manufacturer of Woodbridge, John Abell. This is a very ingeniously contrived affair, and will, if it works as it promises to do, supply a want much needed. It is adapted to cut an open ditch or drain for laying tiles. It will cut a ditch three feet deep, nine inches at the bottom and thirteen inches at the top. It is a very powerful machine, and strongly made. The driver rides on a sort of platform, and appears to have perfect control over his work, and can raise the cutting part away from the driving wheel, if it gets clogged and remove the obstruction. This cutter cuts a furrow while the wheel referred to scoops out the dirt and carries it to a sort of deliverer at the top, which throws it on one side. The horses walk on each side of the ditch, two being able to draw the machine in light soil, while in stiff ground four are required. The whole depth is not dug out at one operation, but the same length of ground has to be gone over several times to finish the work. This may seem a tedious process, but the makers say that the machine will complete a mile of ditching in a day. We had an opportunity of seeing it at work, and our first favourable impression was greatly strengthened. In clay, it works admirably.

There was also on the ground a drain-plough or ditching-machine, manufactured by W. Van Buskirk, of St. Thomas. Gilmer and Burkholder showed a powerful stump-puller.

At some distance from these on the ground, though first in the prize art, and of chief importance in agriculture, were ranged the Ploughs, of which there was a good show both in iron and wooden implements. J. Morley, of Thorold, showed one of iron, one of wood, a subsoil plough, and a double mould-board plough. J. Condey, of Bartonville, was the successful competitor for the first prize. — Stephenson, of Nassageweya, exhibited a strongly made plough of polished iron, the share of which is very solid, and fastened without bolts. J. Yocom, of Walpole, T. Chisholm, of Paris, and G. McSherry, are exhibitors in this class. The last named showed a plough with a strong iron arch connecting the mould-board and

share with the beam and handle, in such a manner that they can, when required, be easily separated for the purpose of repair. For this implement the second prize was awarded. The same maker showed one with a wrought iron beam attached to wooden handle. The coupler is also fixed and adjusted by an iron buckle with set pin. J. Watson, of the Ayr Foundry, sent ploughs with McSherry's patent combination of iron and wood just alluded to. James Walker, of Whitby, Atkinson Brothers, Etobicoke, J. H. Grout & Co., Gramby, sent similar implements. The exhibitors of wooden ploughs were A. Yocom, J. W. Needs, of Bowmanville, J. N. Davis, J. Lowrie, Sarnia, T. J. Hind of Wallace town, and J. Morley.

Subsoil Ploughs were exhibited by J. Morley, and Atkinson Brothers, Double Shear French Ploughs, by J. Watson and J. Needs, Double Mould Ploughs by J. Grain, of Guelph, and J. Morley. Massey, of Newcastle, and Turabull & Co., of Hamilton, showed Gang Ploughs.

There were a few rollers, J. Watson, of Ayr, showing one with a grass and sowing attachment.

Iron and wooden harrows followed next on the ground. Of these there was a great variety; that manufactured by Israel Kinney, has a peculiarity in the jointing first shown by him last year, at Kingston, and since followed, it would appear, by several other makers. By the socket joint the whole can be taken apart and put together again very readily, so as to admit of easy removing in a wagon. The whole is held together by chains. T. Alexander, of Guelph, showed an ingenious contrivance which dispenses with nuts. The head of the teeth is perforated with a square hole into which a square rod is thrust from the end, (one rod fastening several teeth). This rod, or bolt, passes through a sort of sheath or barrel. From seeing these and similar alterations merely on the ground, one can scarcely judge of their merits; actual trial is needed to determine whether they are improvements or not. Isaac Westcott, Bowmanville, James Pringle, East Zorra, John Foster of Lambton, and Carr & Roblin, of Lindsay, showed harrows of various make and excellence.

Hay elevators were shown in operation, some on the harpoon principle, and others as horse pitchforks. Of the former sort, E. A. Benson, of Ameliasburg, exhibited one with a fixed pulley attached, which seems to be an improvement; the teeth are also longer than usual, and the whole is made of wrought iron. G. H. Brown, of Gananoque, had another harpoon; and horse pitchforks were shown by J. G. Pensyck, of Gananoque, James Gault, of Malahide, George Ash and Leonard Richards, of Mt. Hope. The Judges had an opportunity of testing the merits of these implements by seeing them work.

In turnip drills, both handbarrow and horse implements, there was fair competition. James Soulan & Co. had a corn and bean planter, no other of the kind being shown. J. Watson, of Ayr, J. Dodds, of Beverly, and W. Walker, of Hamilton, were the principal exhibitors, the last named gaining a first prize. The circuit of the fair ground, which has been followed in the foregoing notice, now brings us back to the neighbourhood of the steam engine and large machines. There were two saw machines here, one manufactured by Mitchell, of Millbrook, which gained the prize at Kingston, and in which several improvements have since been added, for which the inventor has taken out patents. Near this was a modest machine, invented by an amateur machinist, Mr. J. P. Clarke, of Yorkville, and called the domestic saw mill. It is a hand saw machine, working a circular saw, and seems well adapted for family use. The ingenious inventor estimates that it could be made for \$15.

We come now to the Horse Hoos and Cultivators. Of these there was a great variety. Two-horse iron cultivators were exhibited by J. Lawrie, of Sarnia, and I. Westcott, Bowmanville. One-horse Cultivators were shown by J. Watson, of Ayr, R. Gray, of Dundas, J. Lawrie, of Sarnia, Isaac Westcott, Bowmanville, and Turabull & Co., of Hamilton. Two-horse wooden Cultivators were shown by several of the foregoing exhibitors, and by C. Welton, of Haldimand, whose machine is provided with a seat for the driver, a luxury which we are slow to introduce into Canada. John Grout & Co. exhibited also in this section, and B. W. Walton had a combined Cultivator and Seed Drill. F. & G. Morgan, of Markham, brought to the Hamilton Fair, and gained the first prize for, a two-horse Cultivator, for which a prize was awarded at the Paris Exposition. This has a good arrangement for adjusting the balance so as to remove the weight from the horse's neck. It also possesses another advantage, that the wheels can be readily taken off and the implement is once converted into an efficient grubber. Massey, of Newcastle, showed Summers' grain chopper, and another was also shown by the inventor. The first prize for grain chopper was awarded to Waterous & Co., for their Mill already mentioned.

A novel machine was sent by Atkinson Bros., which they call a Land-presser, and which they contend is a

complete substitute for the drill. It is intended to be used after ploughing to prepare the ground for broadcast sowing, which is to be followed by the harrow for covering the seed. The implement shown is furnished with two large wooden wheels (more may be added) which, as they revolve, leave the land in furrows at regular distances, with the soil nicely compressed. Most of the seed sown rolls into these furrows, and what little falls on the intervals is mostly dragged in with the harrow.

Next follow seed drills, all said by their inventors to be the best, and to be perfect. One shown by Mr. Thomas Evans of London, is adapted to sow turnip seed as well as cereal grain. Mr. Scott of Dundas has a combination for sowing grass seed, as also had Maxwell & Whitelaw's drill, a machine that is largely patronised by farmers, and that gained the first prize in Kingston, and the second at the recent Exhibition. An excellent drill is also exhibited by James Sendall, of Oshawa. A drill which has been a great favourite in the United States, has gained the first prize at the New York State agricultural show, and been specially commended by the U. S. commissioner of agriculture, is manufactured by Andrew Crosbie, of Dundas, and was shown here. It appears to feed very evenly, the quantity of seed being regulated by the speed of the revolutions, and this by appropriate gear wheels. The feeding apparatus is peculiar, simple, and adapted to sow fine or coarse grains, even as large as peas. There is no stir rod in the hopper, and when it becomes necessary to clean this out, it can be done more readily than in other drills. The present is the first year of its introduction into Canada, but upwards of 7,000 were made during the past year in the States. For this drill the first prize and diploma were awarded.

A miscellaneous collection of implements occupied a long open shed in this part of the ground. Here was to be seen an excellent specimen of a horse hay rake. It is manufactured in the States by B. C. Taylor, and was exhibited by the agent for Canada, Jas. Soutar, of Chatham. It is called the Taylor Sulky Rake, and is a well-made, and, we believe, thoroughly efficient implement, light and strong, easily managed, and raking the ground very clean. We have seen the same in use in the States. The first prize was awarded to Yale & Co. of St. Catharines.

Maxwell & Whitelaw showed here some very excellent straw cutters, two of them adapted for horse power, and two for hand use. The same firm exhibited also a root cutter, imported, we believe, from England — at all events the patent is English, and the machine has long been in use there. It is a thoroughly good implement, and by reversing the action of the crank can be made to cut fine for sheep or coarse for cattle. It is light, and occupies little space.

J. Watson, of the Ayr Foundry, showed a similar machine and several straw cutters, and an admirable machine for cleaning peas, which is, in fact, a miniature pea thresher. L. D. Sawyer & Co., and Hind & Roberts were also exhibitors of straw cutters. John Abell, of Woodbridge, showed an excellent grain crusher, which is well adapted to grind large or small grain and seeds. It is somewhat similar to Summers', but the grooves in the rollers are more oblique, and the motion of the second roller is more rapid than that of the other, so that the grain is cut as well as crushed.

Cider mills are shown by Sells, of Bayham. These are too well known to need comment. This exhibitor received again the distinction of a first prize. James Scott, of Dunbar, sent one somewhat similar; and Thomas Walker, of Westminster, exhibited one of altogether different structure, with a canvas attachment to strain the juice after the operation of grinding and pressing.

A number of washing machines were, as usual, on exhibition, and their inventors claim immense advantages for them. George Baker, of Oakville, showed one which in appearance is something like a root cleaner. A sort of barrel formed of bars, with open spaces between, revolves in a trough. A number of wooden balls inside the barrels are designed to assist in the process of cleansing. P. Forfar, of Waterdown, showed another on a different principle.

Fanning mills were very slenderly represented in the exhibition, but a very good one was shown by W. A. Gerolamy, of Tara, Co. Bruce. It is well got up in every respect, but the distinctive features are a wire agitator which stirs the grain through the bottom of the hopper and prevents choking, a screw which nicely regulates the feed, and the use of perforated zinc instead of wire sieves.

A few farm waggons, in no way remarkable, and a collection of dairy implements, noticed elsewhere, complete the contents of the implement shed.

On the rising ground west of the large machinery a number of pumps were displayed, most of which were fixed in place over tanks that had been constructed for the purpose, and supplied with water by the exhibitors. Mr. Merrills, of London, Ontario, exhibited a variety of so-called telescopic lift and force pumps,

adapted for domestic use, or for feeding tanks or fire engine purposes. These machines are also made in Toronto by W. Hamilton & Son. Mr. Powell, of Newton Brook, also showed specimens of his now well known pumps—among them the patent swing pump and the Dominion force pump, the latter provided with a double air chamber, and throwing a powerful and steady stream of water. This is the only wooden force pump made in Canada. His patent adjustable hose, which is very readily removed or attached, is a very convenient appendage to these contrivances. Other pumps were shown by Hiram Land, of Port Nelson, and D. C. Ferguson, of Scarborough.

Some ingenious fences occupied the highest knoll on the Fair Ground. Stephen Washburn, of South Dumfries, showed his portable picket fence, models of which were exhibited at Kingston last year. To one of these he attached a gate, the hinge and latch of which are both ingenious. The gate will swing either way, can be easily raised to be out of the way of snow, and is self-latching. He has also a machine for turning and sharpening the pickets. With the aid of this the work can be done so fast that the patentee is able to supply the fence as low as fifty cents a rod.

B. Greening & Co. exhibited several varieties of their patent machine-made iron wire fences, which are light, strong, and tasteful in design.

Gates appropriately came next in order on the ground. R. E. Stephens showed a small gate, of ingenious contrivance. T. T. Munger exhibited some ingenious slide, or, as he calls them, friction roller-gates, to one of which is attached a most admirable contrivance, by which a person driving through can open and shut the gate without leaving his vehicle. Farmers, and all who have to be their own coachmen in muddy weather, will appreciate the convenience of this invention. Over the top bar is fixed a cog wheel, and in the bar a number of notches; a long iron rod or axis projects from the wheel on each side to a sufficient distance to allow room for the horse and the vehicle between the driver's seat and the gate. This rod is kept in place against a post at the side, and is bent into a handle, by which the wheel can easily be turned, and the gate is thus made to slide back and forth. Capt. W. James, of South Norwich, exhibited an ingenious gate, which has the recommendation of being cheaply made, and of being readily lifted over snow. Mr. R. Lewis, of Melbourne, however, obtained first and second prizes for his gates, with which the readers of the CANADA FARMER are familiar, from the descriptions and illustrations which have appeared in the issues of Sept. 2, 1867, and Sept. 1, 1868.

Other farm tools were to be seen in the Crystal Palace, and a few in the Horticultural shed. Among the former, Messrs. Whiting & Co., of Oshawa, had an excellent assortment of scythes, of different sizes, on exhibition. Three distinct kinds are made for grass, and the same number for cradle reaping. They had also well-arranged assortments of hoes and forks, among them socket forks and hoes, manure forks, with the strapped and the common ferule, and other agricultural implements. Mr. W. Lutes, Townsend, Ont., to accompany these, had several sets of very handsomely-finished axe-handles on exhibition. Mr. P. Washburn showed others, which were of excellent quality.

F. Johnston & Son, Elgin, were exhibitors of an assortment of tool handles of all descriptions, comprising hammer, axe, and sledge hammer handles.

Mr. J. Hourigan, Dundas, had a number of very finely-finished chopping axes on exhibition, with a number of reaping and mowing machine blades—all exhibiting the very best workmanship.

The above is but an imperfect sketch; little more, indeed, than a bare enumeration of a very admirable show of implements, which we examined as carefully as limited time and the hurry of Exhibition work would allow; and if articles of merit have been passed by, their owners will, we are sure, exonerate us from any intentional neglect. The prize list, which we shall publish as soon as it has been officially corrected, will, in some cases, supply the omission.

## Crops in Quebec.

To the Editor of THE CANADA FARMER:

The drought which so afflicted the rest of Canada was continuous here for at least six weeks, around Quebec. It was, however, local, for during its height there were twenty-four hours' steady rain at Frampton, thirty-six miles from town. Also, in what are called *par excellence* the Eastern Townships, there was rain during the existence of the drought which prevailed in the neighbourhood of the city. The result is that the country generally has not suffered so much as was feared, and hay is rather low, ranging from seven

to ten dollars a ton. Since the drought we have had beautiful dropping weather with warm winds, which have kept back Jack Frost so far, although he generally visits us before this.

What little wheat is grown about Quebec is most excellent, clean and heavy. Oats are a good crop, and are nearly all in. Turnips are a short crop, but are growing fast. The potatoes have too much top, but are quite healthy, and will certainly be an average crop. It is perhaps a strange idea to start, but I do believe people about here manure potatoes and meadow too heavily. The result with regard to the former is, that they are rank and will not keep. Cabbages are a failure, on account of the white butterfly. Would it not pay well for every county to purchase dead butterflies, at so much a hundred, of little boys? It would certainly be better than waiting for the eggs to develop to caterpillars before removing the evil. *Obsta principis* should be the motto with regard to all these evils.

Among the crops that grow well down here are French beans. These should be more extensively grown, for they are a sure crop, unaffected by any insect, they produce a plentiful crop, and fetch a good price. But oh! how slow we are down here! These things command two dollars a bushel on the line, where the Americans buy quantities of them, and yet, not a *pin* of them ever leaves the Quebec market! Surely some old country man might find energy enough to grow half an acre of them as an experiment. They make an excellent winter dish by being soaked twenty-four hours or more before being boiled, slowly, till soft. Well done, they are excellent. Badly cooked, they are abominable.

Honey is good, but not so plentiful, on account of the dry weather. We have a flower show in progress, about which I will write next week.

PHIALA.

Quebec, Sept. 10, 1868.

NOTE BY ED. C. F.—Will the writer again favour us with his name and address, which we have unfortunately mislaid? We have not omitted to insert any communication which we have received; so that it appears his "last" has never reached us.

## The Dairy.

### Dairy Implements and Products at the Exhibition.

THERE was but a small display of dairy implements, showing some ingenious and most important inventions, truly, but in the number of articles falling short of the last two exhibitions, and by no means well representing the dairy interest of the country. Among the novelties in this class was a milk cooler, invented by Mr. C. G. Cody, which promises to supply a long-felt deficiency in the manufacture of cheese. By this apparatus the liquid poured into a sort of hopper, with a narrow slit along the bottom, falls in a thin sheet in front of funnels, the blast from which, mixing with the fluid and scattering it in fine spray, at once reduces its temperature, and deprives it of the animal odour, which is apt to affect injuriously the quality of cheese. The President of the Canadian Dairy-men's Association, D. E. Chadwick, Esq., has expressed a very favourable opinion of the merits of this machine, which has also, we understand, received the approval of one of the best judges in such matters, X. A. Willard, Esq., of Utica. D. Harris is the exhibitor of another very simple, but most useful contrivance, called the curd drier. It is a large wooden tank or vat with the bottom sloping towards the centre, along which there is a perforated tin strainer, over a conducting spout. This arrangement allows all the liquid to drain away from the curds without the necessity of using cloths, a material very difficult to keep in that state of perfect cleanliness which is so essential to dairy operations. This drier has now been in use about one year, and is becoming very general in the Oxford county cheese factories.

F. L. Bungay, of Norwich, exhibited and obtained a prize for his very excellent cheese vat.

There was quite a large assortment of churns, with a variety of devices for lessening manual labour. Among the exhibitors was J. W. Goodson, of Hamilton, who showed a barrel churn, with lever power and perforated dasher, an effective-looking machine,

which is sold for \$3.50. C. Lewis, of Salford, had a lever churn, the lever working on a roller, and the motion of the dasher being thereby rendered perpendicular. There is a coil spring attached to the back of the lever, which raises it, and relieves to a certain degree muscular effort in working. C. Stone, of Ancaster, A. Lenn, of Cayuga, C. W. Jones, of Percy, R. Dickhout, of Dereham, and T. Taylor, of Water-down, were also competitors in this class.

A cheese press was shown by R. Whitlaw, of the Oxford Foundry, thoroughly well constructed, and favourably known to cheese makers. John Arnor, of Hamilton, had another on exhibition, which is furnished with an eccentric lever acting on the top of the screw, weighted as required, so as to secure a continuous pressure. The same maker showed another of simple construction, which is a lever press without the screw. He had also an ingenious hand curd mill, in principle very like the sausage machines now so much in use. The foregoing comprise nearly all the dairy implements exhibited.

There was a fair display of factory and dairy cheese, T. Ballantyne, of Downie, taking the prize for the former, and T. McLaren, of West Flamboro', the first for the latter kind. Mr. Parsons, of Guelph, obtained a prize for his meritorious Stilton cheese. The competition in butter was pretty large, and the contents of some of the firkins and crocks of first-rate quality, such as rarely, if ever, finds its way into the Toronto market. The sample sent by Mr. Thompson, of Beverly, well deserved the prize awarded. This is a branch of the dairy interest that is a disgrace to Canada, and the meritorious exceptions deserve special praise. It would be well if some associated system like that of the Butter Factories in the United States could be introduced into the Province, so that the business might be conducted on scientific principles, and the markets of our large towns supplied with an article that would consign the execrable compound now vended to its more legitimate and ignoble uses of greasing rough machinery and waggon wheels.

## The Apiary.

### Bees and Bee-Hives at the Exhibition.

THERE was more than the usual amount of competition in this department. The principal exhibitors were A. D. Bacon, of Bayham, S. H. Mitchell, of Blanchard and J. H. Thomas, of Brooklin. The hive exhibited by S. H. Mitchell, of Blanchard, is like the Thomas and Bacon hives, constructed upon the movable-comb principle. The frames, however, are novel in their construction, being somewhat of a triangular form. Mr. Mitchell handled his bees with considerable skill, and is quite an enthusiastic bee-keeper.

J. H. Thomas, of Brooklin, as heretofore, had a large display of hives and bees, among which we noticed a very large and populous stock of Italians, and an observing hive containing a very beautiful Italian queen. We also observed some eighteen or twenty small boxes, which Mr. Thomas informed us contained Italian queens for sale. As usual, large crowds gathered round this stand to examine these very popular hives, and listen to the information given concerning the nature, habits and management of bees.

A. D. Bacon also exhibited several observing hives, containing bees and an Italian queen; we noticed, however, that his bees were hybrids.

Mr. Thomas again obtained the first prize, which he well deserves. He also received an extra prize for Italian stock, and another for Italian queens. The second prize for hives was awarded to S. H. Mitchell, of Blanchard.

It is pleasing to notice a growing interest in this direction, as was still further evidenced by the large display of honey, which was far greater than at any previous exhibition; there being eighteen exhibitors of honey in the jar, and eleven of honey in the combs. It certainly must have been a difficult task for the judges to determine which among several of the jars exhibited was worthy of the prize. The awards made by them were to the following gentlemen, in the order in which they are named:—For honey in the jar, Thomas Kirkland, Oneida; S. H. Mitchell, Blanchard; W. Ptoloway, Binbrook; G. W. King, Pembroke. For honey in the comb, H. M. Thomas, Brooklin; James Kirkland, Oneida; G. Bennett, Cobourg; and S. H. Mitchell, Blanchard.

## Canadian Natural History.

### The Crested Grebe.

(*Podiceps cristatus*.)

THE Grebes belong to a small group of birds, placed by some naturalists in a sub-order by themselves, intermediate between the Waders and Swimmers; but there is scarcely sufficient distinctive peculiarity to warrant their separation from the latter order, *Natares*, to which they naturally belong. They are included in the family of Divers (*Colymbidae*), the largest and most remarkable of which, the Great Northern Diver, has been described and illustrated in a former number of the CANADA FARMER. The Grebes, however, form a sub-family, which is distinguished by the toes being margined with a membrane, usually lobed or scolloped in its outline.

We have three native species, the largest of which is represented in the accompanying illustration. The crested Grebe is readily recognized by the peculiar

appendage to its head and neck. The latter, or ruff, is peculiar to the male bird,—the two tufts of feathers on the head mark both sexes. This is a handsome-looking bird, measuring from eighteen to twenty inches in length. It possesses the characteristics of the genus in the bill of moderate length, straight, robust and pointed. The nostrils are broad. The neck is long and slender. The feet are placed very far back; the tibia, or leg bone, very short, and feathered to the joint, and almost hidden by the belly. The inner and middle toes are connected by a web, as far as the first joint. The female is of a lighter brown, approaching to grey. The sides of the head, as well as of the body, are tinged with a reddish hue. The chin and front of the neck are white, shading off

to grey on the under part of the body. The tufts on the head and the ruff are, in general, black, tinged with green; the upper part of the ruff is of a reddish brown.

Like all water-fowl, this is a very shy bird, and chiefly frequents secluded ponds and inaccessible marshes, where, among the reeds, it forms its nest, and lays about four yellowish-white eggs. The young are very pretty little birds, covered with soft downy plumage, and boldly striped with grey and black from beak to tail.

Another and more common species is the Horned Grebe, (*Podiceps cornutus*) commonly called Dipper or Diver, a much smaller bird. This is a most active creature, defying most of its foes, even the arch enemy, man, by the lightning-like rapidity with which it disappears and dives beneath the surface of the water, where it will remain for an astonishing length of time, to emerge again, for the purpose of breathing, at some distant and unexpected quarter. It is no easy matter to shoot these birds; so rapid are their movements, that almost in the instant of time between the flash of the fowling-piece and the contact of the pellets with the water, they are down below "like a shot," as the saying is, and the disappointed sports-

man perceives the water disturbed by the contents of his gun exactly in the right spot, but no bird dead or alive is to be seen. The flesh of these birds is sometimes eaten, but has a fishy flavor, which renders it unpalatable to most people. The feathers on the breast have come into very extensive use as ornamental trimming for various articles of female attire. A third species, the Red-necked Grebe (*P. rubicollis*) is rare in Canada.

## Natural History Department of the Exhibition.

THIS very interesting department had the smallest exhibition that we remember having seen at any Provincial Exhibition; in fact the principal sections or classes of natural history were not represented. There was not a single entry of mammalia, birds or fishes; whether this was owing to the small amount awarded as prizes, or that our principal contributors to this department for this section of the



Province, viz: Mr. Passmore, of Tronto, and Mr. McIlwraith, of Hamilton, are contented to rest on their laurels, it is difficult for us to say. We recommend, however, in future, that these gentlemen do still contribute to a department which is always so full of interest and importance to the visitors.

The collection of Canadian insects was very meagre, but we noticed the very fine cases of foreign insects sent from Toronto by Mr. Goswold. The moths and butterflies were collected on the Himalaya mountains, and probably are the most gorgeous in appearance that have ever been exhibited.

Mr. Wright, Hamilton, exhibited a very good collection of native minerals, for which he was awarded the first prize. There were also some very fine specimens of sulphate of baryta and lead ore, from the Galway mine, in the County of Peterboro.

Canadian plants were represented by a very fine herbarium, in a most excellent state of preservation, exhibited by A. Logie, of Hamilton.

There were a few small articles of natural productions, but none of importance, with the exception of some fine specimens of rock salt, for the use of horses and cattle, imported by Messrs. Hendrie & Co. of Hamilton.

## Stock Department.

### Stock at the Provincial Exhibition.

FOR the accommodation of the large number of animals entered in this department of the Exhibition, considerable alterations were made in the buildings on the show ground, and several new structures were erected. South of the Crystal Palace is an oblong plot of ground, in the centre of which an ample space was railed round for a horse ring, and beside this a smaller circle was set apart for a cattle ring. The three sides below the building were occupied as sheds and stables, those on the east side being appropriated to the shorthorn cattle; while along the south and half the west sides the stalls, provided with close doors, and forming very good stabling, were set apart for the horses, and the remainder, on the west side, for Hereford cattle. These buildings were all erected against the boundary fence, and were open only on one side, looking inwards. For the accom-

modation of the other breeds of cattle spacious sheds had been erected west of the main building. These were divided into two rows of stalls, one on each side. The first of these was set apart for Devons; next to these was a similar shed, devoted to Ayrshires along one side, and Galloways and Angus cattle on the other. The pigs were accommodated in a similar long shed, with a double row of pens, one on each side. The sheep occupied pens along the eastern side of the grounds. The shed for the poultry was a very suitable structure, erected north of the building, and very near it; it was enclosed on all sides by slats or battens, and tightly roofed in. The accommodation was ample, convenient, and well sheltered from the weather, and the general arrangements were

excellent. We proceed now to notice the different classes of stock, in their order on the prize list.

#### HORSES.

The show of horses on the whole was exceedingly good, and highly creditable to any exhibition. In the class for blood horses, however, the number of entries was very limited. The principal exhibitors were the Messrs. White, of Bronte. In the aged class, Mr. Waddell, of Hamilton, headed the prize list with "Ruric," a very fine bred horse, and by far the best specimen of a thoroughbred in his class. Some of the blood stock wanted substance.

In the second class, for agricultural horses, the show of aged stallions was very good. Mr. Ferris was again successful with his black horse. No doubt he is a very fine animal; yet it is our opinion that the chestnut imported horse, owned by Mr. Hawkins, of Markham, although he failed to secure a prize, was the best and most valuable animal in his class. He shows many excellent points, and is certainly deserving of notice. He was imported last season by Mr. Cochrane, of Montreal, who is deserving of all praise for his continued enterprise in bringing to this coun- such valuable animals.

Mr. Ferris also gained the diploma for the best horse of any age.

The brood mares and young stock generally, although a few very superior animals were exhibited, were not quite equal to former years. Mr. Armstrong, of Vaughan, and Mr. Berth, of Darlington, gained respectively the first and second prizes in the class for brood mares, and both were good specimens of the general purpose horse. In the class for the two-year olds, we observed a very fine mare, belonging to Mr. Smith, of Glanford.

There were twenty-two entries in the class of matched horses for agricultural purposes. Some very fine horses were shown. Mr. Coyne, of Trafalgar, was successful in obtaining a prize. Mr. Hendrie, of Hamilton, and Mr. Hall, of Blenheim, also showed excellent teams.

The heavy draught class was well represented, and many very fine specimens were exhibited. There were two imported three-year olds worthy of particular notice, one of them owned by Mr. J. J. Fisher, Colborne, and imported last season from Lincolnshire, England. The other was imported from Dumfriesshire, Scotland, and is the property of Mr. Thos. Evans, Blanchard; both of these animals showed symmetry and action seldom to be surpassed in this class.

The two-year olds were also very fine, and in this class, Mr. J. Thompson, of Markham, showed one imported last season.

Mr. J. Davidson, Pickering, had a very fine imported brood mare which has won many prizes in former years, and will yet, we believe, stand well forward on the list of prize-takers. He also exhibited an excellent two-year old filly out of the above mare. The latter obtained first honours. Among the principal exhibitors in this class were Mr. McFarlane, Pickering, who showed a one-year old colt, and Mr. Docherty, Scarborough, who had a good three-year old, bred by the late Mr. Torrance, Scarborough.

For aged stallions, Mr. Harvey's brown imported horse "Champion" gained the first prize, but competing for the diploma for the best horse of any age, he was beaten by a younger rival, already noticed. Brood mares and young stock were not so numerous as we have seen in former years.

For the best pair of heavy draught, Mr. Cochrane, Montreal, gained the prize with his pair of imported Suffolk mares, aged respectively three and four years. The heavy draught, as a class, were decidedly good, and it would be a very difficult matter to surpass them at any exhibition in Great Britain. In fact, many of the premium animals on the ground were imported, and have carried off principal prizes at exhibitions both in England and in Scotland. It is gratifying to find the spirit and enterprise of many of our Canadian farmers in importing such valuable stock, which in after years will be of universal benefit to this country.

The carriage and driving horses were in great numbers. Mr. Davis exhibited his pair of black mares which has carried off the first prize on two former occasions. Mr. Irish, of Toronto, also showed a pair of excellent carriage horses. In the class for single carriage horses, Mr. Hendrie, Hamilton, showed a very fine bay gelding, which for action and substance can scarcely be equalled. He also exhibited a very fine saddle horse.

Of aged stallions there was a very fine show. There were about twenty animals on exhibition, and the whole of them first-class animals, many of them combining both symmetry and action, seldom to be seen. Mr. Douglass, of Oakridges, showed two very fine animals descended from the Old Royal George stock. Mr. Murray, of Toronto, exhibited Coachboy, who has stood high in the prize list in former years. Mr. Roach, of Hamilton, had a very fine animal, which the judges put first on the list; he is by Royal George out of Reindeer mare. Mr. Tench, of Niagara, was awarded the second prize, and Mr. Ellis, Hamilton, the third. The three year old stallions were a fair show. In this class, Mr. E. N. Orr, Georgetown, carried off the prize with a very nice-looking brown horse. There were several good pairs exhibited; but the general show of carriage horses was only middling.

#### CATTLE.

The show of cattle must be acknowledged by all capable of forming an opinion on the subject, to have been one of the best, if not the very best, we have ever had at a Provincial Exhibition. No fewer than 329 head were on the ground, and it says much for the growing appreciation of the Durhams, that nearly one-third of the number were of that deservedly popular breed. Including the grades, most of which are dashed with short-horn blood, more than one-third were of this breed. Of pure Short-horns, there were 97, and nearly all of them were choice animals. It speaks well for the judging at former shows, that in-

ferior animals are now for the most part kept at home. It was a very delicate and difficult matter for the judges to decide in some of the classes on which of a number of animals of nearly equal excellence to bestow the honours. In other classes, the decision was of course very quickly made. The class of two-year old bulls was pronounced by the judges, and others, whose opinion is entitled to respect, the best ring ever collected on this side of the Atlantic. Had the three prize takers been removed from this class, it would still have been considered remarkably well represented. The judges would have liked, had it been possible, to have given all the animals a prize. The bull calves were another capital class, and contained no fewer than 17 competitors. Mr. Stone's "Grand Duke of Morton" is at the head of the list in aged bulls, and Mr. Cochrane's "Rosedale" in aged cows. Two of the last-named gentleman's recent importations, a yearling bull, and a heifer calf, attracted much attention, while there was much disappointment that the one thousand guinea heifer was not on the ground. Mr. Christie's herd was conspicuous only by its absence. Mr. Snell had a number of very fine specimens on the ground. So also had Mr. John Miller. The Devons and Galloways and Ayrshires were in nearly equal force and quality. Some 25 good Herefords were shown. Three Angus cattle only were exhibited. Twenty-four grades, the best among them owned by Mr. John Miller, showed the effect of short-horn crosses on our native stocks. Some very fair working oxen were shown, two pairs of high Durham grades being especially excellent. There were very few fat cattle, a huge steer bred by Mr. J. Vine, of St. Catharines, being the most remarkable. This animal was purchased by Mr. J. Britton, of Toronto, for \$400.

In proceeding to give a somewhat more detailed account of this department of the Exhibition, we may observe that the plan adopted of having a separate ring for showing each breed while being judged has been found a great convenience to all concerned. In the centre of each ring a post is planted, from which there swings after the manner of a signboard the name of the particular breed of cattle to which that ring is devoted. Posts and ropes prevent spectators from crowding in upon the judges while in the performance of their duties, and enable a large number of persons to get a good view of the animals exhibited. To estimate fairly the comparative merits of the competing specimens, it is needful to see them side by side in the open air. Passing from stall to stall gives but a poor opportunity of coming to an intelligent and just opinion of the various animals. As, however, the judicial process goes on with the several breeds simultaneously, and we unfortunately are not ubiquitous, it was impossible for us to see all the cattle under the most favorable circumstances. We therefore naturally concentrated our attention upon the Short Horns. Each year makes it manifest not only that this valuable breed is continually rising in public favor, but that our leading breeders, instead of being satisfied with past results, are constantly aiming at a higher standard of excellence. To possess the best specimens of this breed in America is not glory enough for them. They are ambitious of competing with and excelling the Short Horns produced in their native haunts. It is undeniable that some of the finest animals bred in Britain have been transferred to Canadian pastures, and the foundation laid for herds that may yet rival some of those that have become historical and famous in England. With shrewd, judicious management—such as we have ground to expect from not a few of our breeders—we may look forward to high distinction, if not victorious laurels, in the Short Horn ring of the world. There is, however, one serious difficulty to be overcome. Such are the traditional requirements as to the condition of Exhibition animals, that breeders find it necessary to feed them to a degree that is incompatible with their fullest efficiency in the parentage of choice stock. To be distinguished both in the show ring and the byre, a cattle breeder would need two sets of animals—one fed up to the exhibition mark and another kept down to the breeding point. Hon. David Christie assigns this as the reason why he has not shown his fine short horn herd for two seasons past; and on the same ground we understand Mr. M. H. Cochrane intends to withdraw his magnificent cow "Rosedale" from the show ring, that in the quiet and retirement of domestic life at the farm she may bring forth descendants that shall maintain and even outshine the fame of their dam.

It is much to be desired that by some carefully framed rule as to the condition of exhibition animals this difficulty could be got rid of. As it is, breeding and showing are conflicting interests—a thing exceedingly to be regretted. If, however, this evil is to be remedied, some rule of uniform and impartial application must be adopted, since any single breeder would show under fatal disadvantages if his animals were sent into the ring in ordinary breeding condition to compete with highly fed rivals.

As already observed, the Short Horn department must be acknowledged to have made a very fine display. Among nearly a hundred animals of high general excellence, it is manifest that only a few can be particularized in such an account as this. But it would be unfair to conclude that those not specially noticed are unworthy of mention. Had a smaller number been shown, more in proportion would have come in for particularization. In the class of aged bulls there could be no question as to the superiority of Mr. Stone's Grand Duke of Morton. Mr. John Miller's Prince of Bourbon is a meritorious animal, and deservedly took the second prize. There were eleven entries in the three year old class—the first prize-taker being a fine bull sired by Oxford Lad and bred by J. Cowes, Esq., of Waterloo. His present owner is Mr. George Wood, of Downie. The two-year-old bull class was a very difficult one to judge, from the large number of superior animals comprehended in it. There were fourteen entries, every one of which was worthy of a prize. The animal that took the highest honors was imported by Mr. Snell, from Kentucky. He was bred by Mr. Abraham Reneck, and is owned by Mr. William Collum, of Haysville. The yearling bulls were a good class, though not equal to the two-year-olds. Bull calves to the number of seventeen were exhibited, and were felt to be a hard class to judge, from the uncertainty of development in animals of so early an age. An imported calf of Mr. M. H. Cochrane's won the first prize. Not the least perplexing competition was that for the sweepstakes. Mr. Stone's bull, the Grand Duke of Morton, gained the enviable distinction, but many thought Baron Booth—Mr. Cochrane's imported yearly—better entitled to it. He is certainly a young bull of remarkable excellence and great promise. In aged cows, Rosedale, of course, distanced all competition. Mr. Cochrane, in importing this magnificent cow, walked at once to the highest place of distinction in her class. Mr. Stone's Maid of Guelph, and Mr. John Miller's Lorca, followed next in order. In the three-year-old cows, the judges astonished most people, and nobody more than the fortunate owner, in giving the first prize to Gola, a recent importation of Mr. Jno. Miller's. "Blood will tell," and this cow being of nearly pure Booth blood, could not be put in any other position than the first. But for this she would have changed places with Mr. Cochrane's Maid of Athol, which was awarded the second. Mr. Stone's Isabella XII won the third place of honor. In the two-year-old class, Nelly Bly, a beautiful heifer, the property of Mr. John Miller, won the red card, and the distinction was grudged by nobody whose opinion is worthy of regard. She is an importation from Illinois, and if she does well will be heard from at future exhibitions. Mr. Cochrane's Miss Margaret Third, bred by Mr. Stone, took the second prize, and Mr. Stone's Cambridge Eighth, the third. The yearling heifers were a very fine class; Mr. Snell's Clara Barton, a very pretty animal, heading them by all odds. Mr. G. Robson's Fannie, third; and Mr. Stone's Miss Margaret Fourth followed suit. The heifer calves comprised fourteen first-rate specimens; Mr. Cochrane's recent importation of Wharfedale Rose got the first premium; she was sired by the same bull as Duchess 97, the 1000 guinea heifer, and cost 100 guineas; she is a heifer of grand promise, having a splendid chest, broad escutcheon, and other fine points. Mr. Stone took the second and Mr. Snell the third prize in this class.

The Hereford classes comprized a very select lot of animals. Mr. Stone is no longer left alone in his glory with this breed. Mr. Cochrane competes with him very sharply, though it must not be forgotten that Compton Lad, the finest specimen in his herd, and perhaps the most perfect bull of any breed on the ground, was bred by Mr. Stone. Mr. W. Perdue, of Chingacousy, had the high honor of winning from both these gentlemen the first prize for aged Hereford bulls and the sweepstakes; his Sir Benjamin is a noble animal; he also was bred by Mr. Stone.

The Devons and Ayrshires comprized a number of meritorious animals; indeed the show in both these classes was of great excellence, and we regret that we cannot now go more fully into details. Some really beautiful animals were shown by R. Spooner, of Kingston, W. & J. Peters, of London, H. Spence, of Brooklin, and other successful exhibitors. In the Ayrshire class Mr. W. Wheeler, of Woburn, was the most distinguished exhibitor, and gained fresh laurels for his choice herd of this useful breed. Most of the

Galloway honours were carried off by Guelph, and were divided pretty nearly equal between Messrs. T. McCrae and Wm. Hood.

The chief interest in the competition among cattle-breeders centred in the PRINCE OF WALES' PRIZE.

This was offered for the best herd, one male and five females, of any breed. Second and third prizes were offered by the Association. Fourteen entries were made for these prizes, but only six herds came to the scratch. Mr. Stone, of Guelph, showed a short-horn and Hereford herd; Mr. Cochrane, of Compton, did the same; Mr. John Miller, of Pickering, showed a shorthorn herd; and Mr. W. Hood, of Guelph, a Galloway herd. The Judges had a long and thoughtful time over this prize, and finally awarded the Prince of Wales' Prize to Mr. M. H. Cochrane's herd of shorthorns, the second prize to Mr. John Miller's herd of shorthorns, and the third prize to Mr. F. W. Stone's herd of shorthorns. The reasons for this decision will be gleaned from the following remarks, appended by the Judges to their award:—

"In reference to the Prince of Wales' Prize, the Judges make the following remarks: The committee have had great difficulty in coming to an accurate conclusion as to the superior merits of the herds submitted to their inspection, on account of the different breeds of animals competing on equal terms with each other; the different breeds submitted, viz., Shorthorns, Herefords and Galloways, each of the three possessing valuable qualities. Such diverse breeds should never be submitted on equal terms for prizes. Each are valuable for certain soils and surfaces of our country. The Shorthorns are, beyond question, the most popular, and probably the best breed of cattle with the majority of our stockbreeders and graziers: yet there are large districts of country where they prove inferior to either the Herefords or Galloways. So with either of the latter herds—each of them the best of their kind. Suffice it to say we have given our awards under most embarrassing circumstances; and, had we fully considered the difficulties of the case before us, we would have hesitated to act on this committee.

"Under all circumstances, we beg leave, with due respect to the better judgment of the Managers of the Board of Agriculture, to suggest that hereafter prizes be offered for the best herd in their general classes, and that each herd be exhibited in a class by themselves, under whatever names they may be known."

#### SHEEP.

There was a fine display of sheep, especially of the Leicester and Cotswold breeds. Indeed this department of the Exhibition was unquestionably in advance of all preceding shows; and it is doubtful if so valuable and choice a collection was ever before got together west of the Atlantic. Owing to the peculiarly unfavorable season just past, there were very few lambs on the ground of any breed, and they were mostly under size. During the unprecedented hot and dry term, ewes could get no grass, and the lambs were not able to take any food but milk. Most of our flockmasters were obliged to eke out the scant pasturage by resorting to cured clover and meal as in the winter time. A few unusually good lambs that were shown owe their superiority to extra feeding of the ewes, and extraordinary painstaking. The older sheep generally had a healthy, thriving look, notwithstanding the torrid ordeal through which they had passed. As usual, there were some over-fat specimens; but for the most part no complaint can be justly made on this head. There is no perceptible appearance of improper shearing, and if it has been practised at all, it has been done so adroitly that it cannot be detected even by experts. So far as Leicesters and Cotswolds were concerned, the look of the sheep and the alleged date of shearing corresponded. The firm application of the excellent rule of the Association on this point has already wrought a most satisfactory improvement—rather a complete reform.

The Leicester classes must have given the Judges much perplexity from the uniform excellence of many of the specimens. Two pretty distinct types of this breed were shown by our flockmasters—the original and strictly true Leicester sheep, and the improved Leicester, obtained by crosses with animals of larger frame and longer and more lustrous wool. The Lincoln is the favorite for this cross, though there is reason to suspect that in some cases the Cotswold is resorted to for the purpose. These long lustre-wooled sheep are demanded by the American trade. It is this combing wool that United States manufacturers want, and had we reciprocity treaty our flockmasters could sell a very large number of breeding animals of this sort. As representatives of the normal type of Leicesters, a pair of two-shear sheep imported by Mr. W. Oliver may be mentioned. They were

bred by Miss Stark, of Mellinden. This lady is considered to rank about second among the Leicester breeders of Britain—Lord Powell, of Merton, near Kelso, taking the lead. Mr. Oliver's importation is a very choice one; and these animals, for symmetry and fattening tendencies, could not be surpassed, though they lacked the length and lustre of wool above mentioned. Mr. Cochrane had also several imported Leicesters that were very choice specimens of the breed as found at home. Mr. Snell, of Edmonton, had a very fine lot of improved Leicesters that might be taken as models of the sort of animals demanded by the trade of this country. Could we particularize we might mention several of his sheep—especially some very fine shearling rams—that deservedly attracted much attention. A very fine two-shear ram has just been sold by Mr. Snell for \$250 to Mr. George Robson of London township. An aged ram imported by Mr. Kirby, of Milton, is a very fine animal. Mr. John Scott, of Lobo, had some of the best ewe lambs this year has produced. Robert White, of London, had a very fine lot of Leicesters, of various ages—twenty-two in all. Mr. B. Charlton, of London, showed a pair of handsome ewes, and a very pretty pair of twin ewe lambs. Mr. C. Walker, of London township, who may be called the Leicester patriarch of Canada, had seventeen very nice specimens. A pair of his lambs excelled all the others on the ground, and the ewe lamb would be hard to beat any year, however favorable. Mr. Kirby, of Milton, had a fine lot of Lincolns and Leicesters. For want of a distinct Lincoln class in the prize list some Lincolns were merely ticketed as "extra entries," while others were shown among the Leicesters. Among the Cotswolds the first place must be assigned to the imported animals exhibited by M. H. Cochrane, of Compton. His aged ram is a splendid animal, and, what is a feature of great merit, not too fat for service. The same may be said of his ewes. These animals ought to have had the first honors; but they were given to an over-fed, though well-built, ram of Mr. Stone's, and to a pair of ewes that are advanced in life, past breeding, fed for the butcher, and fit only to be shown as fat sheep. Mr. Cochrane's shearling ewes took both first and second prizes. Mr. John Miller had a fine lot of imported Cotswolds. Indeed, this is one of the most valuable importations of sheep ever made into Canada. They consist of fourteen shearling rams and twenty ewes. All the rams were on the ground, but only five of the ewes were shown. These choice sheep are from the flocks of Messrs. Garne, Lane, Hower, Tams, and Gillet, all noted Gloucestershire breeders of Cotswolds. One of these rams has been sold to Mr. J. J. Dodge, of Ashtabula, Ohio, for \$220. This gentleman also bought two ewes of Mr. Cochrane's, we did not learn at what figures. Mr. Cochrane has imported no fewer than forty-five Cotswolds the present season, and is certainly worthy of all honor for the spirited manner in which he is pressing his way into the lists as a breeder of first-class stock. In Southdowns, Mr. Stone deservedly carried nearly all the prizes. He has, indeed, a beautiful collection of this breed of sheep. A few very nice Shropshire Downs were exhibited, the imported animals owned by Mr. Cochrane taking the lead very decidedly. A pair of two shear ewes of this breed are the gems of this flock. An aged ram is a good animal, but rather Southdownish in look. This remark applies to the collection of Shropshire Downs exhibited by Mr. H. H. Spencer, of Brooklyn. They are a fine lot of sheep, but partake very visibly of Southdown characteristics. The Cheviots did not nos do not show face at all; and the Merinos were but slenderly represented, Mr. Smith, of Burford, and Mr. Jamison, of Vaughan, carrying off the largest share of prizes. This notice is but meagre of the various sheep classes. To have done justice to the several meritorious individuals would require our whole sheet.

#### PIGS.

This department of the exhibition, so far at least as numbers are concerned, was quite below what it ought to be in a situation so central as that of Hamilton. It is natural to expect a show numerically inferior at Kingston, which approaches the eastern borders of the Province; and yet the number of animals in this class exhibited there last year exceeded that of the recent exhibition. It is evident that the chief attention of our stock raisers is devoted to the nobler animals, and that the hog has rather been neglected in Canada. There were, however, some good specimens here of the various breeds of swine, and the enterprise of several exhibitors, and especially Mr. George Roach, of Hamilton, in importing fresh stock, is highly to be commended.

In the large breed section the Yorkshires come first, and here among a few meritorious specimens

there were some coarse animals that might suit the requirements of breeders in the Western States, perhaps, where size and weight for the market are more considered than symmetry and quality, but which would have a bad influence on Canadian stock. The principal exhibitors in this section were J. Brodie & Son of Prince Edward County. They showed six animals and gained five prizes. The best boar over one year, shown by them, was imported from the United States, where last year it obtained the second prize at the New York State Fair in Buffalo. Both it and that which gained the second prize are splendid boars, though the first was not equal to the latter in condition, nor indeed, to our thinking, in other points. Their young sows were also fine animals. Mr. J. J. Biggar, of Trafalgar, showed a fine boar. J. Featherstone, of Toronto, and J. Main, of Trafalgar, and W. Bethel, of Thorold, were also meritorious exhibitors in this class; but we decidedly preferred Mr. Main's Berkshires and Suffolks to his Yorkshire pigs.

In large Berkshires there was a considerable falling off in the number of entries, owing, perhaps, to a growing preference for the smaller breed of improved Berkshire. These animals were not kept sufficiently distinct, but were mixed up with others in a way rather confusing to visitors. J. H. Laurie of Barton was the principal exhibitor, and came off with the lion's share of honors in this section. John Corrie of Dereham, another successful breeder, had also some fine animals of this breed, and obtained the first prize for a well-built and good-looking sow, in too high condition for breeding purposes, however, which is perhaps a disadvantage always more or less incident to female show animals. These well-bred Berkshires also take on fat with a very little encouragement. R. Spooner and J. Featherstone, of Toronto, and Hugh Dempsey, of Downing, had good specimens of this variety.

Other large breeds, crosses apparently of Chester or Yorkshire and Suffolk, were shown by Messrs. Main, Featherstone, Roach, Biggar, Marshal (Hamilton), Grant (Hamilton), and W. Thompson of St. Catharines. A large and very fine sow (for which a first prize was awarded,) shown by Mr. George Roach, of Hamilton, was, we understood, a recent importation.

In small breeds the Suffolks were well though not numerously represented. The most noteworthy animals in this group were a boar and sow imported from England by Mr. Roach, and which are desirable acquisitions to the country. J. Main, of Trafalgar, was also in force here, and deservedly gained several first prizes. J. Featherstone and Husband divided the remaining honors.

The improved Berkshires were here in larger numbers than any other special variety, and amongst them several excellent specimens deserve notice. Mr. Roach is an importer in this class also, and he exhibited two beautiful animals, recent acquisitions from England—a young boar and sow, which deservedly took first prizes. John Corrie, of Dereham, long known as a successful breeder of this variety, had here some choice specimens; in particular a young sow, which took the second prize. Some of the stock shown by other exhibitors were also either purchased from him, or the progeny of hogs raised by him.

Mr. John Snell, of Edmonton, was an exhibitor in this class, and showed a remarkably fine young boar, only six months old, but with promise of a very fine animal. It gained the second prize, being distanced only by Mr. Roach's older and imported boar. John Crumb, of Darlington, showed one of the best boars on the ground, bred from Mr. Corrie's stock. A sow from the same litter obtained a second prize. Mr. Featherstone, Mr. Stone, of Guelph, and Mr. C. Jones, of Ancaster, also showed some good specimens of the breed.

The remaining section—Essex and other small breeds—had very little Essex to show; indeed most of the animals exhibited under this head were Mongrel Suffolks. Mr. Roach showed the only Essex hogs, and they were very good. Messrs. Main & Featherstone were exhibitors in this class. Mr. Thompson, of St. Catharines, showed the best boar over one year old, and Mr. Edmondson, of Brantford, the best sow in the same section. Very few of the specimens call for any special remark. The accommodation prepared for the swine seemed more ample than was needed, and a number of the pens were occupied by Merino sheep, others were vacant, and a few were taken possession of by the attendants. One of these lay stretched, in profound slumber, at the back of a pen, and created no small amusement among the spectators, who scarcely looked for a specimen of the *genus homo* in such a place. It will be necessary to make some alterations in the pens for any future exhibition, to prevent the escape of the animals. Many of the attendants barricaded the front of the pens appropriated to their charge by the unwieldy cases in which the hogs had been brought to the ground; a precaution which greatly obstructed the view, and was not a little inconvenience to the visitors.





## Sorghum Syrup Bee Moth--Hawthorn.

To the Editor of THE CANADA FARMER:

SIR.—I see by the numerous applications for Sorghum seed this spring, that the people of Canada are beginning to take an interest in the growth of that plant; and as I have grown it for the last four years, I propose to give you a few words on the subject of its manufacture.

As soon as the seed gets black or before it the first comes, take a stick, about two feet long, and knock the leaves off; and with a reaping hook remove the heads, and then cut the stalks off close to the ground lay them in the waggon box, and draw them to the cane press, where the juice is pressed out. Take the juice and put it into a sugar kettle, and boil it down to molasses, keeping it carefully skimmed all the time, as the quality of the molasses depends in a great measure upon the skimming. Then wash the pot carefully and fill it again, and proceed as before, being careful not to fill up the pot, as in making maple syrup. The press is a simple structure consisting of two wooden rollers about one foot in diameter, and sixteen inches long, standing upright, with cogs in one and mortices in the other, at the top of the crushing part. Three of the ends of the rollers are turned down to about six inches, and the other end is left larger and longer, to put the sweep on. The whole length of the longer roller will be about thirty-four inches, and the other twenty-four inches. These rollers run in four-inch planks, both top and bottom, which are held together by a little frame at the end of the planks, they being about six feet long. The rollers are tightened together by means of a wedge outside the plank. Every farmer should have at least an acre of cane, as the molasses is better than golden syrup. The cane is crushed by a horse hitched to the sweep.

Permit me, also, to say a word to my bee-keeping friends of Canada. As the Bee Moth is a great annoyance to bee-keepers generally, it occurred to me three years ago that if the moths were so anxious to get inside the hive they would collect on combs outside; I therefore put two pieces of fresh comb in front of the hives one evening. I went to it the next morning and killed twenty-five moths; and a lot got away. The morning following I killed seventy-five moths, and have not been annoyed with them until this year, when I tried the same remedy with like results.

I see by your paper that the subject of live fences is occupying the attention of the farmers of Canada, and as there is a great variety of thorns growing wild here, two of these I think would make excellent hedges, for the following reasons:—1st Their close compact nature. 2nd. Their rough bark, which resists the attacks of mice. 3rd. Their formidable thorns. One of these I shall call the Laurel Thorn, from the fact that its leaf is very like the Laurel leaf, smooth and glossy. I will enclose a leaf and a thorn of each of the two kinds I think the best, and if you think there will be a demand for plants I will raise some for sale. I have the English Thorn bearing haws, but they are not to be compared with the Thorn before mentioned.

WM. HOSKINS.

Sarnia, Sept. 1868.

NOTE BY ED. C. F.—Several species of Hawthorn, (*Crataegus*) are indigenous and common in this country. Two of them, the scarlet-fruited Thorn (*C. coccinea*) and the Black or Pear Thorn (*C. tomentosa*), have the leaves deeply toothed on the edges and more or less cut and jagged, besides other characteristics whereby

they can be readily distinguished from the Chick-par Thorn (*C. coccinea*), the leaves of which are regular in form, having an ovate (egg-shaped) outline, slightly serrated at the margin, and shining on their upper surface. The spines or thorns are strong, slender and sharp, and sometimes are as much as two inches long. This is probably the best of our native species for hedges. The leaf and one thorn enclosed with the above letter belonged to this variety, the second thorn most probably to one of the other two.

CHINESE YAK.—J. Emery is recommended to communicate with Mr. Prince, of Flushing, New York, on this subject.

PEAT Mr. Angus Shaw brought to this office a specimen of peat found on his farm in Lakeside, Oxford County. He says there is apparently an abundance of it in that neighborhood.

ESTIMATED COST OF BUILDING. A subscriber asks us to give the estimated cost of such a building as that for which we gave a design in the issue of Aug. 15. Such a house could be put up in wood for about \$2,000. Built of brick it would cost about \$3,000.

POISON IVY.—Mr. Charles Mungham enquires whether all the so-called ivy found growing on stumps, fences, &c., is poisonous; "some of it" he observes, "has three, and others five fingers to each leaf." The most common native creeper, very much resembling in general appearance the poisonous plant in question, is the Virginian Creeper (*Ampelopsis quinquefolia*) which is quite harmless, and belongs to the same natural order as the grape vine. The Poison Ivy (*Rhus toxicodendron*) is a plant of the Sumach tribe, and is readily distinguished from the preceding by the leaves having only three leaflets, while the Virginian Creeper, as its specific name (*quinquefolia*) implies, has five.

## The Canada Farmer.

TORONTO, CANADA, OCTOBER 1, 1868

### The Provincial Exhibition.

THE Provincial Association of Ontario may justly claim the hearty congratulations of the friends of agriculture on the successful issue of their twenty-third Annual Exhibition. Looking at the number of entries, the high standard of excellence attained in many of the departments, the good order that prevailed, the increased and improved accommodation, and the excellence of the arrangements and general management of the whole affair, we are constrained to pronounce the recent Exhibition one of the best if not the very best that has ever been held in the Province. Great praise is due to the authorities of Hamilton, the local committee, and the officers of the Association, for the energy, judgment and good feeling manifested on all hands, and in the subordinate ranks, the superintendents of the various departments, whose offices have proved no sinecure, are worthy of all commendation for the manner in which they have discharged their onerous duties. All the authorities concerned have shown a laudable consideration for the interests of exhibitors and the convenience of the public, and have even stretched the spirit of leniency and accommodation in some matters almost too far; for no one will deny that the general work of the Exhibition would be materially lightened, and the comfort of judges, reporters, and the public enhanced by a stricter enforcement of the regulations regarding the time of bringing articles to the ground. If all infringements of these rules, and reprehensible procrastination, were followed by a forfeiture of the privilege of competition exhibitors would take care to send their articles in good time and much of the hurry and crowding of work would be avoided. In-

stead but for the judicious sub-division of labor, it would be quite impossible to get through the amount of work in the very limited time allowed. Fortunately for the success of the exhibition, the weather during the preliminary days of preparation and the two principal public days was fair and pleasant, so that the vast crowds that thronged the Crystal Palace and the show-ground had an opportunity of making their survey without the drawback of the drenching rain that has hitherto so frequently marred the enjoyment of these occasions.

The most serious disadvantage attending these shows is the inevitable crowding on the two public days. This is not only a great discomfort, but renders anything like a proper inspection quite impossible. How to avoid this yearly increasing inconvenience is a problem that will force it off on the attention of the Association, and must ultimately lead to some modification of present arrangements. This difficulty affects chiefly the departments within the main building and the erections for the display of Agricultural and Horticultural products. The facilities for inspecting implements and stock were very much better, and perhaps all that could be accomplished in the limited time.

The gratifying progress that the science of agriculture is making in the Province, as evident by these Exhibitions, must be manifest to all, and should stimulate us to press forward in the path of improvement. It is not too much to say that every department of the recent Exhibition showed some signs of this advancement; but it has been most marked, we think, in the quality of the stock, and in the number, variety and excellence of the implements displayed. The show of Short Horn cattle, and Leicester and Cotswold sheep, has never been equalled in Canada. The Horticultural department is also one of growing interest and magnitude. The position and prospects of the Fruit Growers' Association are greatly improved, and indicate a career of prosperity and usefulness.

The progress in Art and Manufactures is also very marked, and elicited the admiration of not a few strangers from the adjoining States, among whom were some high in official position, and every way qualified to form an impartial judgment. Long may these peaceful arts be the only rivalry between our neighbors and ourselves.

### The Harvest.

THE Grand Trunk authorities have this year, as on former occasions, gathered through the agents at their different stations reports of the state of the crops and the general character of the yield and quality of the different farm productions throughout the country. The account is interesting, but, for the present at least, cannot, for want of space, be given in full. We however present a condensed view of all that is most important, from which we believe our readers will have a distinct idea of the estimate formed of the harvest in the districts through which the Grand Trunk passes. For convenience of reference the whole range of the Grand Trunk is divided into the following districts: I. THE BUFFALO AND GODERICH. II. THE WESTERN. III. THE CENTRAL. IV. THE EASTERN, and V. That of QUEBEC AND RIVIERE DU LOUP.

I. In the first district, viz., that of Buffalo and Goderich, the reports of the different crops are tolerably uniform throughout. The fall wheat, without exception, has been an excellent crop. The very lowest yield mentioned is fifteen bushels an acre, and that only in one report; while other cases are mentioned where the return has been as high as thirty-five. We should say that the average throughout the district would appear to be from twenty-two to twenty-five bushels per acre, and a very fine sample of grain. The early sown spring wheat seems, in certain localities, to have suffered considerably from drought

and midge, and, in some instances, is spoken of as a failure. Still, with few exceptions, it will yield from ten to fifteen bushels per acre, and the breadth sown is considerably larger than in average years. Barley is spoken of as a light crop, though in some instances the yield is as high as thirty bushels per acre. The same thing is to be said of oats and peas. Upon the whole these coarser grains are rather under the average, on account of the drought, but not to such extent as might have been expected. Hay is generally heavy; and root crops, on account of the dryness of the season, almost a failure in some cases, and light in all; but the late rains may still, in some measure, remedy this.

The reports for the western district, which extends from Sarnia to Toronto, are generally of the same character. There is not a single report which speaks of the fall wheat crop in any but the most favourable terms. The yields mentioned range from twenty to forty bushels per acre, and the sample is of the best description. The spring wheat is, as in the other district already referred to, not so good. Yet it is not, except in very rare exceptional cases, to be spoken of as a failure; and, but for the contrast between its yield and that of the fall wheat, would be almost regarded as a fair satisfactory crop. Root crops are generally spoken of as poor, but the hay is very abundant. Over such a wide extent of country there will of course be considerable diversity, but in general the coarser grains, barley, peas, &c., are rather, if anything, below an average, though in very few instances, indeed, spoken of as a failure. Flax seems, upon the whole, to be about the same as last year.

In the middle district, extending from Toronto to Montreal, the same story substantially is told. From Toronto to Belleville there is not one report which mentions the fall wheat as below an average crop, except in the case of Newtonville, where, however, it is still said to have averaged about twenty-five bushels an acre—not so bad as things go. At Belleville the winter wheat is said to be poor in quantity, but the quality good. From this point downwards but little fall wheat is raised, but what was grown seems to have turned out well. The spring wheat is generally represented, as in other districts, to have been injured by the excessive drought, still, over all, it will come very little short of an average yield of from fifteen to thirty bushels per acre. In some instances it is spoken of as above an average, and in others as the best crop harvested for many years. While barley is spoken of as a light crop in some instances, generally it is fully an average, and in some cases considerably above. The same thing may be said of oats. All represent the yield of hay as very large, and housed, of course, in the best condition.

In the eastern and Riviere du Loup districts the reports, upon the whole, are very satisfactory. The wheat is almost uniformly spoken of favorably, though the breadth sown has not been large. Oats and barley, with some isolated exceptions, are a fair average. Hay is spoken of in a good many cases as light, while there is not so generally an unfavorable estimate of the root crops as for the west.

Upon the whole, there is every reason for the people of Ontario and Quebec being satisfied with the harvest of 1868, and thankful for it. There will evidently be enough for home consumption, and a large margin for exportation. Of course the expectations of our unusual yield raised at the beginning of the season have not been realized, but the fears subsequently entertained and expressed by many, have also, in a great degree, turned out to be groundless. With the prices going, farmers will make out well, and even though a lower price should rule for the rest of the season, they will have no reason to complain. It is a good while since such a crop of fall wheat was gathered, and though other crops may not be correspondingly bountiful, yet, upon the whole, they seem to be tolerably fair, nay, what in other years might have been looked upon as deserving of being spoken of in even stronger and more favorable terms.

### Quebec Agricultural and Industrial Exhibition.

By Legislative enactment the Provincial Exhibition of Lower Canada should be held every other year, alternately in Quebec and Montreal. The last was held in 1865, in the latter city, and consequently Quebec should have had one last year; but failing to provide the requisite funds, lost the honour. Montreal, therefore, with commendable spirit and enterprise, held one this year in place of that which should have been held in 1867. The combined Agricultural and

Industrial Exhibition was formally opened on Tuesday, Sept. 15th, by the Lieutenant-Governor, Sir Narcisse F. Belleau, the previous day having been occupied in receiving articles and completing arrangements. The weather during the first two days of the week was magnificent, and everything betokened a successful exhibition. The total number of entries was over fifteen hundred, and in some of the departments the show eclipsed any former one in the Province. On Tuesday there was no great crowd of visitors, but on Wednesday, spite of a most unpropitious morning, there was a very full attendance of spectators, sufficient to show that considerable public interest was felt on the occasion, though there was not the overwhelming crowding which usually distinguishes the principal public days of Western Provincial Exhibitions, rendering the task of inspection one of no small difficulty. In the early part of the day ample space was left for a leisurely examination, though a drenching rain and consequent muddy ground made it uncomfortable enough; but the sky cleared as the day advanced, and the weather, probably, did not much affect the throng of visitors. In the absence of proper show grounds and buildings, the exhibition was held in different parts of the city. The live stock and farm implements occupied a field known as the Priest's Farm, in the north-western part of the city. This field is surrounded by open sheds, and others have been erected in the middle, an open space being left for a horse ring and for implements. The agricultural productions were shown along with the industrial department in the Exhibition Building, St. Catharine Street; while the Horticultural Society held a separate show of fruit and flowers in the Drill Shed.

One noteworthy feature about this Quebec exhibition which strikes a stranger from the Western Province, and would doubtless be still more surprising to an American visitor, was the comparative absence of side shows. A few refreshment stalls were to be seen along the route to the fair ground; but beside these there were not many temporary erections to be seen outside; indeed, one vociferous and eloquent showman nearly opposite the principal entrance seemed to be without any rivalry in his line, and doubtless realized a rich harvest from the credulous public by the exhibition of "Dr. Livingstone's Chimpanzee" and the "living Kodloo-kamba, from the wilds of South Africa." This last animal, to judge from the pictorial representation on the outside, was a slight improvement on the Chimpanzee, and suggested the idea of Barnum's gorilla. Both the city and the exhibition proper gain by the paucity of these itinerant caterers of the marvellous.

In the livestock department there was altogether an excellent show; and though the accommodation was of a temporary nature and adapted for fine weather only, yet the general arrangements were good. Following the order of the prize list, the animals were grouped according to their classes and sections, so that a fair opportunity was given both for judges and spectators to make their comparisons between animals of the same breed and age. Up to the time of our leaving the ground, however, the visitor had to submit to one serious disadvantage, which is especially felt in attempting to give any account of the exhibition, namely, that no names were attached to any of the articles; nor, with few exceptions, had any of the prize cards been put in their places. This last deficiency was in due time remedied; but the names of the exhibitors of animals that did not gain prizes were only in a few cases made known to the public, so that a stranger could not well specify either animals or exhibitors. This must be taken into account, and all allowance made for omissions in this cursory notice to give honour where honour is due.

With this explanation, we will speak first of the horses, of which there was a good display. A most unfortunate accident diminished the number of those on the ground on the third day. For want of proper stable accommodation, most of these animals were

removed for the night, and a fire having broken out in one of the stables in the neighbourhood where some of them were accommodated, three very fine horses perished. One of these was the imported Clydesdale horse "Briton," belonging to the Beauharnois Agricultural Society. Another valuable Clydesdale, two years old, imported this year by the Huntingdon Society, and an Anglo-Norman horse belonging to the same society, were also victims of this sad catastrophe. The origin of the fire was not made known. Some of the animals in the same stable were fortunately saved.

One peculiar feature in this class was the Percheron horses, of which there were some magnificent specimens. These recently introduced heavy draught horses seem to be gaining favour in the Eastern Province, and also in the United States. They have valuable points about them which will probably lead to their introduction into Ontario.

Of the Clydesdales there were some fine specimens; among them a splendid animal called "Lord Clyde," bred by Mr. Miller, of Markham; also one imported by Mr. Robt. Brodie, of North Georgetown, County of Chateauguay, who purchased him last year from Messrs. Muir, of Huntingdon Mains, Scotland. The weight of this animal is 1,838 lbs; his height, seventeen hands and an inch. He is a well developed, finely proportioned, and powerful animal. There are other very good horses of the same breed; but the chief of all the draught horses, and indeed the best in the class, was undoubtedly Mr. Cochrane's Suffolk "Bounce," which not only gained the first prize in this section, but also the Prince of Wales' prize for the best imported stallion. This noble animal has already been described and his portrait given in the CANADA FARMER. He is now in excellent condition. Mr. Cochrane also showed a pair of Suffolk mares, in the heavy draught section—one of them imported last year and the other recently.

Among the thorough-bred horses were two beautiful animals; one owned by Mr. Carlos Pierce, of Standstead, and called "Canwell," was imported in 1863, by the Quebec Agricultural Society; the other is the property of Mr. Hugh Brodie, and is named "Wagram." He was bred in Kentucky. There was an excellent display of native Canadian horses. Altogether the show in this class was well filled, and if space permitted, many others of great merit might be specified.

The show of cattle was chiefly remarkable for the shorthorns exhibited by Mr. Cochrane, which would have graced any exhibition in the world. Most of these have made their appearance in Canadian show yards before, but some are recent importations. Mr. Cochrane did not, however, show the chief of his recent acquisitions, the Durham heifer, "Duchess 97," for which the very high price of one thousand guineas was given to her late owner, Captain Gunter, of Westerley, in Yorkshire. She was sold on the express condition that she was not to return to England. She is to be bred, we understand, to "Eleventh Duke of Thorndale," and if her enterprising owner is fortunate, will doubtless add some noble animals to the Canadian Herd Book. Mr. Cochrane also bought from Captain Gunter, for one hundred guineas, a roan heifer, "Wharfedale Rose," by "Third Duke of Wharfedale," from "Oxford Rose," by "Sixth Duke of Oxford." This heifer gained the first prize in the year old class. It is almost needless to say that Mr. Cochrane carried off all the honours in the Durham class, "Rosedale" being the most admired of the beautiful herd of these choice cattle which he exhibited. He showed also some fine Herefords, "Compton Lad" among them. A number of these choice animals were exhibited at Hamilton, and are referred to in our account of our own Provincial Exhibition, any further notice of them here is superfluous. Near these were some beautiful little creatures, a herd of Jersey cattle imported by Mr. Sheldon Stevens. They were procured mostly from the Queen's Farm at Windsor, and the rest from Mr. Fowler, of Jersey. They were genuine Alderney breed, and were now for the first time, we believe, shown in Canada. They are diminutive, gentle animals, with a deer-like expression, and well adapted for private dairies, the extreme richness of their milk making them especially valuable for the purpose. They will have to be carefully housed during our severe winters. Mr. Sheldon's herd consists of twelve head altogether, eight of which were exhibited. Close to these, and as if purposely to show to advantage the contrast in size, was a mammoth ox, "General Grant," exhibited by Mr. Carlos Pierce, of Standstead;

his weight is said to be over 4,500 lbs., and he stands over six feet high. He looks a very Goliath among breeds. There was a pretty good show of Ayrshires, Mr. Irving, of Logan's Farm, exhibiting some good cows, and the Beauharnois Society a fine bull. Of Galloways, besides two or three bulls, there was a small herd purchased by their present owner, Mr. Ashworth, of Ottawa, from Colonel Denison. The grade cattle were numerous, and some of considerable merit.

The show of sheep was also good, and in this class Mr. Cochrane was the principal exhibitor. He showed Cotswold, Oxford Downs, and Leicesters. In the latter breed there was some good competition. Mr. D. Elliott showed a flock of Cheviots.

The collection of swine was not very large, but there were some good specimens, among them some Prince Albert pigs imported by Mr. Sheldon Stevens from the Windsor Farm. Mr. Irving also showed some good large breed hogs.

In the poultry class, Mr. Sheldon Stevens and Mr. Cochrane were the most meritorious exhibitors; but the display was very limited, and shown to great disadvantage, on account of insufficient space and utter disregard of methodical arrangement; rabbits, turkeys, bantams, geese, pigeons and Brahmans being promiscuously grouped together in the strangest confusion.

The display of implements was good but not extensive. Mr. Glenn showed a combined reaper and mower from the Joseph Hall works, Oshawa; Mr. Evans, of Montreal, an American machine; Mr. Moody, of Terrebonne, an Eagle mower; and Messrs. Frost & Wood, of Smith's Falls, a buckeye machine; Mr. Johnson, of Montreal, also showed a combined reaper and mower. There were a number of threshing machines on the ground, all to western eyes of small size, and mowed by the incline tread power with two horses. These were tested for the satisfaction of the judges on the ground, and attracted a large crowd of spectators. Ploughs, chiefly of iron, were numerous, as were also most of the ordinary farm implements. A very useful contrivance was shown by Mr. Ferguson, called a stone lifter, which seemed well adapted for the work of lifting and removing large stones, and could be applied to the purpose of raising stumps out of the ground. In the midst of this display of implements was an ingeniously contrived camp tent, which would rejoice the heart of an amateur hunter or surveyor in the back woods. It is made of good stout canvas, and most luxuriously fitted up inside with table, bed, camp stools, small cook stove, besides an ample supply of tinware, spoons, knives and forks, and all the requisites for camp life. The tent and its miscellaneous furniture can be compactly folded together, and stowed for importation in four strong bags, the whole not weighing over eighty pounds. The maker is James A. Hunt, of Quebec.

On the same open space with the implements were some specimens of fences and gates, Mr. Lewis, of Melbourne, exhibiting his newly patented contrivance that dispenses with hinges and substitutes rollers on which the gate slides. Mr. Lewis had these gates in several varieties.

On this portion of the ground was a stand of beehives, most of them made, in part at least, of straw, and also a stock of Italian bees, but the names were not attached, and there was no one near to give any explanation.

The agricultural productions were collected together in a very small compartment of the Crystal Palace or Exhibition Building. Along with some very inferior specimens, good samples were exhibited of grain and of roots, especially of potatoes, which would seem to do well in the neighbourhood of Montreal in spite of the drought. Really excellent specimens of Indian corn were also to be seen; but the show in this respect was very limited, and altogether eclipsed by the miscellaneous display of the Industrial Department, which occupied the main portion of the floor and galleries in the spacious building. Indeed, this unpretending but most important part of the Exhibition seemed so much thrust aside that a visitor might pass through the building without discovering it. There was a fair show of dairy products.

The Agricultural Department of the Exhibition was altogether creditable, and an improvement, we believe, on any former show of the Province. The total number of entries was as follows:—Horses, 225; cattle, 430; sheep, 400; swine, 127; poultry, 130; grain and seed, 177; roots and vegetables, 203; dairy products, 160; implements, 200.

At a meeting of the Agricultural Association, Mr. Cochrane was elected President, and a gold medal was awarded to him for his eminent services in importing valuable stock into the country. The society granted the sum of \$100 to the Agricultural Associations of Huntingdon and Beauharnois for each of the horses lately destroyed by fire. It was also resolved to ask the corporation to contribute to the erection of permanent buildings for the accommodation of stock, &c.

The Industrial Department was held in the Exhibition Building, in St. Catharine Street, and was crowded with articles of Canadian manufacture in bewildering variety. Visitors, as usual, thronged all the passage-ways, rendering the task of progression or examination difficult and tedious.

The press of other matter more immediately within the scope of this journal precludes the possibility of any detailed description of this department.

The Montreal Horticultural Society held their show, unconnected with the Provincial Association, in the Drill Shed, a spacious, lofty, and well lighted building, admirably adapted for the purpose. The style of decoration was in good taste, and the whole effect was charming. The display of fruit was not large, but the grapes grown under glass were remarkably fine. There was also an excellent collection of apples, and some good pears and well ripened melons of luscious flavour. Of other fruit there was but a meagre show. Two long tables of flowers gave good evidence of the skill and taste of the amateur and professional horticulturists in Montreal. There was an extensive collection of stove plants, which formed a conspicuous feature in the exhibition. There was a large attendance of visitors, and during a portion of each day the strains of a good military band enlivened the scene.

The combined attractions of these exhibitions, the Dominion Rifle Match, the Anglican Synod, the visit of the Governor General and other matters of special interest, filled the city to overflowing, and it was with the greatest difficulty that the influx of strangers could find accommodation.

### Montreal Veterinary School.

We direct attention to the advertisement of the Montreal Veterinary College and Institution, that is we believe steadily progressing, and doing important service to the cause of agriculture in Quebec. We may mention, in connection with this subject, that the school has lately secured a valuable acquisition in a set of life-size and magnified models, which are intended also as a nucleus of an Industrial Museum. We are informed that some time ago, Dr. Leclerc, the Secretary of the Board of Agriculture, having visited the Agricultural museums of Washington and Albany, made a report of some artificial, anatomical and vegetable models he had seen in those collections. The report was made in March last, and in consequence the Board voted \$1,000 towards the formation of a similar collection. Dr. Auzoux, of Paris, was accordingly written to, and some very interesting preparations have lately arrived, which were exhibited at the recent Provincial Show in Montreal. The most remarkable of these is a horse, nearly life size, which takes into about a thousand pieces, the exterior showing on one side the skin removed, with the nerves beneath, and on the other side the muscles, each portion being coloured to exactly resemble life. The head can be removed, and divides into numerous pieces, showing all the internal portions. Parts of the back and side being removed, all the organs are displayed, being exactly modelled after life. This is intended for the use of the Montreal Veterinary School, under the able direction of Mr. McEachran, and will certainly be of the greatest benefit to the pupils, during lectures, in that excellent institution. Among the other models are jaws of thirty pieces, showing how age is discovered by the teeth. There is also a set of small models, or *tableaux*, illustrative of the structure and development of the teeth. Also, the jaws of an ox in thirteen pieces. Not the least ingenious are the pathological preparations, in thirteen pieces, showing diseases of the extremities. By the substitution of one piece for another, the same limb, in a healthy and diseased state, may be shown; bones of the hind leg twelve pieces; hind extremity dissected, showing bog spavin, wind-galls, bursal enlargement. A model of the hoof, taken into three pieces. The lower anterior extremity, showing tendons, blood vessels, nerves and ligaments. Among the vegetable preparations, is an enlarged model of a sweet pea, taking into twelve pieces, showing their minute structure and component parts; also a grain of wheat, three hundred times its natural size, dividing it into longitudinal and transverse sections, showing formation and disposition of cells, and also illustrating growth and development of germ. There is also a large egg, one hundred and forty-eight times the natural size, showing shell, lining membrane, disposition of

the yolk, white, and embryonic development of chick. The Board of Agriculture also contemplate getting a large collection of model seeds and grains, belonging to various quarters of the globe, from the celebrated French firm of Vilmourin and Andrin of Paris, the whole with a view to the formation of an Agricultural Museum.

### Stock Sales.

**COTSWOLD AND SOUTHDOWN SHEEP.**—Among the advertisements in our present issue are notices of several important stock sales. Mr. Stone, of Moreton Lodge, Guelph, announces a sale of Cotswold and Southdown sheep to take place on Thursday, Oct. 15th. He offers a number of rams and ewes of both breeds, on advantageous terms, time being allowed for payment. The high reputation of Mr. Stone's flocks renders anything beyond the announcement of the sale unnecessary. Those who are commencing to raise sheep, or who wish to improve their stock, should avail themselves of this rare opportunity. A number of Berkshire hogs are included in the sale.

**SHORT HORN CATTLE.**—A sale of Short Horn cattle is advertised to come off on the farm of Mr. Douglas, Onondaga, on the same day.

**SHORT HORN BULLS.**—Mr. H. G. White, of South Frammingham, Middlesex county, Mass., U. S., advertises for sale the Short Horn Bull Ninth Duke of Thorndale (of Duchess blood). His dam is from the same cow that dropped the Eleventh Duke of Thorndale, now the property of Mr. Cochrane. The Glenvale Society also offer a Durham Bull for sale.

**PRIZE LIST.**—We defer, as heretofore, the publication of the Prize List till it has been officially corrected and completed.

**INTER-PROVINCIAL FRUIT GROWERS' PRIZE.**—We insert in the present issue an advertisement, which we regret we did not receive sooner. Though dated from Wolfville, on the 30th August, it did not reach this office till after the publication of our last issue, and we fear the announcement is altogether too late to be of any use to the fruit growers of Ontario. All that can now be done is to insert the advertisement, and call attention to the liberal intentions of the Nova Scotia Fruit Growers' Association, who offer a prize consisting of a gold medal and one hundred dollars in money, for the best collection of apples, six of each sort, grown in any Province of the Dominion, to be competed for at the Agricultural and Industrial Exhibition which will open in Halifax on the fifth day of October. If the Horticulturists of Nova Scotia can beat the display of apples at the recent Exhibition in Hamilton, they may reckon themselves the champions of the world, and we should like to see the Show.

### Agricultural Intelligence.

#### Address of the President of the Provincial Association.

At three o'clock on Thursday afternoon of the exhibition week, the President of the Association, Mr. Thomas Stock, of Waterdown, delivered the annual address from the grand stand in the Exhibition Grounds.

Hon. Asa A. Burnham, of Cobourg, Vice-President of the Board of Agriculture, introduced the President to the meeting; and he then delivered his address. He was not, he said, going to make a set speech on the occasion; he made no pretensions to oratory. But he felt that he might, perhaps, in the course of a few remarks, be able to throw out some ideas of value; and if he succeeded in doing so, he would be well repaid for any trouble he had taken in the matter. He desired to bring before them a few circumstances coming under his own observation, and indicate what in his opinion would be improvements. This Agricultural Association had been in existence now for twenty-two years, and they all knew that immense progress had

been made in that time. He had the privilege of attending the first Exhibition in Toronto. It was one got up by a few of the pioneers of the West, some of whom were standing before him. To these men the public were now indebted for all the good which the institution they had founded had been the means of effecting. It was commenced under many disadvantages. The implements then used in agriculture were of the rudest nature, and agriculture was altogether in a most imperfect state. The time to be spared from the labour of farm clearing was too little to leave hope of much progress at that period. But what had been accomplished since then was patent to all. Year by year these exhibitions had gone on increasing in magnitude and usefulness, until they had reached their present magnificent dimensions. He sincerely hoped that in respect to them a retrograde movement would never be witnessed, but that they would ever be found to flourish. He need scarcely remind them of the immense increase which had taken place in the value of stock within the period he had alluded to. But, as a practical farmer, he would urge them not to rest contented with the stand-point they had attained, but persevere in the road of progress. The present Exhibition undoubtedly was a great success—perhaps the most successful one ever held in the Province. But he would caution them against entertaining the notion that the limit of progress had been reached, and that they had done all that was necessary. Such a notion must infallibly tend to their harm, and he would again caution them against it. It was said to be more difficult to make progress in a state of prosperity than in adversity, and his own experience led him to believe this. What should be the aim of every visitor to the fair was to increase his knowledge. Let them take with them to their homes the information so fully acquired here—let them exercise their judgment in regard to what was to be seen, and wherever they got a useful hint carry it away with them. Let this exhibition not be made by visitors a mere holiday matter—a time of pleasure and excitement. It should, on the contrary, be one of the hardest working weeks in the year to all desirous of increasing their stock of knowledge and advancing in prosperity. This seemed to him to be the great object of this exhibition, and as one of themselves he solicited them to make good use of the information which can be so fully acquired at these exhibitions. Reverting to the early days of the exhibition, he remembered that the first year all that was offered in prizes was £400. This year the Association had a prize list of \$13,000. That was pretty fair progress, and furnished an answer to those who sometimes said the progress was not fast enough. It seemed to him that, looking at the advance in the time mentioned, in arts, agriculture, mechanics and manufactures, the progress had been as fast as could be safely made, and was certainly more than could have been anticipated. Mechanics, for instance, might well be proud of their contributions to the Fair, for they were such as have not been surpassed by any exhibition. Gentlemen from the States, England, Scotland, and elsewhere, who had attended the exhibition, had expressed themselves astounded at the perfection and excellence of the manufactures shown. What a contrast these fine farming implements shown presented to those in use in the time when they were confined to some old Ancaster ploughs and a few imported from Rochester—when farmers were obliged to use an article with no leverage in the world, and when farming was altogether a tremendous task. At any of the exhibitions now were to be seen splendid iron ploughs, harvesters, and an immense variety of agricultural implements. There had in fact been a complete revolution in agriculture since those olden days. The system of sowing wheat from year to year, until even the best soils became exhausted, had given place to that of a rotation of crops, and there was no fear of a return to the old style again in that particular. And in this connection he would remark that much of the stuff raised by farmers under the new system was not such as could be exported; and since that was the case, he would say by all means encourage manufacturers to come to the Province, stay there, and be consumers. He did not believe in the rule laid down by some to buy in the cheapest and sell in the dearest market. There were circumstances when this would not be politic, and he thought that as mechanics purchased their surplus and non-exportable stuff from farmers, and thereby gave the latter a market they needed, so, in turn, mechanics should be encouraged and protected against foreigners. In the infancy of their manufacturing interests, such guardianship and encouragement was, no doubt, necessary, and then, of course, when they attained maturity they could get along on free trade principles. Protection was needed, he took it, until their manufactures reached more strength, and was decidedly the best policy for Canada at present. These were his views on the subject. A continuous run of prosperity had increased their

institution to one of mammoth extent, so that it was not possible for all to have that opportunity of examining the articles which was desirable. The crowd was too great, and the time too short to admit of this being done. But the institution was now coming into existence under the new Act, which entirely altered their duties. He did not know what plan to suggest to remedy the evil alluded to, but was of opinion that it might be met either by an extension of the fair time, or by some other plan. Under the new Act the country was divided into twelve electoral divisions, and instead of voting at the annual meeting on some names submitted, each County Association elects at its annual meeting a representative to the Board of Agriculture. Before this, the Board and President managed all the business of the Association except during the week of the show. Then it was the President's business to take charge of the arrangements. Now the arrangements were improved, and the people had more control of the Association and its affairs. Having alluded to the vast improvement shown in all the departments of late years, he urged those present to forward the interests of the Association in every way, and not be ready to take offence at every little thing that occurred not to their liking. If they had fault to find, the way to do was not to grumble and stop at home, but come up and endeavor through their representatives to secure the desired remedy. There were too many grumblers and too few workers in that as in other institutions. But, notwithstanding all that, the Exhibition had been a great success—even beyond what could have been anticipated. Having noticed his lengthy connection with the institution, thanked them for the trust they had reposed in him, and the honor done him, by electing him President, he went on to say that he was going to retire from office, but still would always esteem it a pleasure to do what he could to advance the interests of the Association. He then alluded to the cattle disease, and to the trip of a committee of the Association to enquire into it. As one of that committee, he would say that it was admitted on all hands that the original cause of the disease is not known, nor is it known how it is communicated. He would merely say, as it was possible that some of their neighbors from the other side of the line might be present, he desired to return them hearty thanks for their kindness and hospitality to the committee, and the help afforded them in their mission. In conclusion, he would ask those present to join with him in returning thanks to an All-wise Providence for their let abundant harvest—a harvest, one of the greatest proofs of the richness of which was shown in the success of their Exhibition. He desired, finally, to return thanks to his colleagues for their co-operation, and to the local committees.

### Annual Meeting of the Provincial Agricultural Association.

The annual meeting of the Provincial Agricultural Association was held in the Court-house, Hamilton, on Thursday evening, Sept. 25th. The President, Mr. J. Stock, occupied the chair. There were present a large number of delegates from the different agricultural associations. The President explained that, under the new law, the society could do no more than appoint auditors and choose the next place of meeting. Col. Johnson, London, and T. D. Harris, Toronto, were appointed auditors. On motion of Mr. Ashford, seconded by the Hon. Mr. Skead, it was resolved that the next exhibition be held at London. The Mayor of London and Ald. Partridge and Durand offered the usual guarantees of accommodation for the exhibition. Hon. Mr. Skead notified delegates that the city of Ottawa would move to have the exhibition held there the year after next. The old by-laws were re-enacted and a committee appointed to revise them. Thanks were passed to the city of Hamilton for its accommodation for exhibition purposes.

Some discussion then ensued with reference to the cattle disease. Col. Denison explained that the Hon. Mr. Allan was delegated officially from New York, and came to Canada to show that they on the other side were anxious to act with us in the matter. He had met the board in an informal manner, but had been obliged to leave Hamilton before this regular meeting of the association. It was finally resolved in reference to this matter that the Board of Agriculture be empowered to take such steps as are necessary to meet the delegates at Rochester with reference to the cattle disease, and the propriety of holding an international convention.

In answer to an enquiry, the Secretary stated that the report of the committee on the cattle disease was being printed, and would be distributed shortly.

A vote of thanks was passed to the railway and steamboat companies, the judges and the President, when the meeting adjourned.

### Meeting of the Board of Agriculture.

THE members of the Board of Agriculture met at Hamilton on Wednesday, Sept. 24, for the purpose chiefly of considering what steps it was desirable to take in reference to the cattle disease, and whether any relaxation could now be safely made in the order prohibiting the importation of Western cattle.

It was resolved—"That the Board having ascertained that the cattle disease has almost if not entirely abated in the Western States, and that no danger need be apprehended from the transportation of American cattle through Canada, would recommend that the Government do remove the prohibitory order on and after the 1st of October, and would, as a matter of precaution, suggest that competent persons be appointed at Detroit and Port Huron for thirty days, to inspect all cattle before being shipped through Canada, and to see that the railway companies use proper disinfectants; and that the Secretary do forthwith send a copy of this resolution to the Minister of Customs."

It was also resolved to ask permission from the Government to allow Mr. Cochrane to exhibit at Rochester.

### Entries in the Agricultural Department of the Exhibition.

We give below a summary of the number of entries in the Agricultural Department of the Exhibition, and in corresponding columns those of 1866 and 1867:

	Toronto, 1866.	Kingston, 1867.	Hamilton, 1868.
<b>HORSES.</b>			
Blood.....	22	4	16
Agricultural.....	131	96	134
Road and Carriage.....	161	181	196
Heavy Draught.....	62	54	65
Total.....	276	335	411
<b>CATTLE.</b>			
Prince of Wales Prize-Herd.....	.....	.....	14
Durham.....	92	86	127
Devons.....	106	59	72
Herefords.....	32	34	83
Ayrshires.....	91	122	81
Galloways.....	59	52	68
Angus.....	12	.....	3
Grade.....	66	64	46
Fat or Working Cattle.....	28	31	35
Total.....	486	448	527
<b>SHEEP.</b>			
Leicester.....	.....	210	336
Cotswold.....	.....	117	155
South Downs.....	.....	67	103
Shropshire Downs.....	.....	47	33
Fine Woolled.....	.....	39	08
Fat Sheep.....	.....	10	22
Total.....	672	490	727
<b>PIGS.</b>			
Yorkshire.....	.....	30	87
Large Berkshire.....	.....	31	17
Other large breeds.....	.....	18	29
Suffolk.....	.....	39	29
Improved Berkshire.....	.....	49	43
Essex and other small breeds.....	.....	31	39
Total.....	185	198	199
<b>POULTRY.</b>			
Total.....	376	214	343
<b>AGRICULTURAL PRODUCTS.</b>			
Grain, &c.....	462	465	462
Roots, &c.....	438	204	439
Total.....	900	689	901
<b>HORTICULTURAL AND DAIRY PRODUCTS.</b>			
Fruit, &c.....	480	267	573
Garden Vegetables.....	552	298	453
Plants and Flowers.....	192	108	122
Dairy Products, &c.....	146	135	177
Total.....	1370	778	1325
<b>AGRICULTURAL IMPLEMENTS</b>			
Horse or other power.....	128	118	206
Do for hand use.....	122	117	153
Total.....	250	235	359
Cattle Food, &c.....	11	5	9
Total Entries, 1866.....	4,634		
" " 1867.....	3,892		
" " 1868.....	4,891		



## The Horticultural Products at the Exhibition.

THE Horticultural Products were shown in a long wooden building erected on the west side of the Crystal Palace. This arrangement tended greatly to relieve the throng in the main building. A wide table extended down the centre, on which were displayed the fruits and flowers, and on each side of the building the vegetables, grain and dairy products were shown. Notwithstanding the very dry and unfavourable season, the collection of fruits shown was superior to those exhibited at any former exhibition, and in open air grapes especially a very marked improvement was discernible. From the crush of people always in the vicinity of the place where they are to be seen, there is no doubt a very great interest taken in them by the public generally. Among the newer varieties were shown, Iona, Israeli, Allen's Hybrid, Adirondac, Rogers' Hybrids of various numbers, and a variety of seedlings.

The division of the prize list into professional and amateur departments three years ago, has proved satisfactory, and now affords a better opportunity of showing the progress among both sections of exhibitors. It also affords either the opportunity of more correctly judging of the advancement of the other, thus making the race more decided and the parties more conspicuous than if both were mixed in one class for competition. The entries by professionals were much larger than ever before, and the same remark applies equally to amateurs. A gentleman from Ohio remarked in regard to the show, that the sight of the tables repaid him for all his trouble. Both are progressing equally fast, and indicate that Canada is destined to be a very great fruit producing country. Among the professionals, a fine display from Messrs. Geo. Leslie & Son, of the Toronto Nurseries, occupied the head of the table, where it attained just prominence from its variety and perfection. It contained 110 varieties of apples, fifty-five of pears, thirteen of plums, thirteen of hot-house grapes, and fifteen of open air grapes, besides crab-apples, cherries, currants, strawberries, and a varied collection of other fruits. A collection of the same size has never before been brought together, and has well earned the prize which Mr. Geo. Leslie, the senior in the firm, has gained for the last fifteen years. It was awarded a diploma in addition to the prize. Messrs. John A. Bruce & Co., Hamilton, also competed in this department, but fell far short of Messrs. Leslie in number, though some of the specimens were very creditable. They gained a second prize. As a whole, apples were somewhat smaller in size than those shown in 1866, which was a favourable year for their production, but fully up to those shown at Kingston last year.

Messrs. Leslie & Son made a large number of entries in apples, as did also Messrs. Bruce & Co., of Hamilton, and Wolverton & Smith of Grimsby.

Pears were shown in considerable numbers and great excellence; a collection of fifty varieties, by Messrs. Leslie & Son, taking first prize, and a collection by Messrs. Bruce & Co. coming in for a second. A very fine collection of open air grapes shown by Mr. Beadle, of St. Catharines, were awarded a first premium—Mr. Read, (of Port Dalhousie) taking second rank. Among those shown by the latter gentleman was noticeable a very large bunch of black Hamburgs, raised in the open air, which took the prize as the best and heaviest one bunch black Ham-burgh grapes, although they were brought into competition with grapes grown under glass. Mr. Beadle also took first prizes for the best three bunches of black and of coloured grapes.

In hot house grapes very meritorious collections were exhibited by Mr. John Gray, of Toronto, Messrs. Bruce & Co., of Hamilton, and Leslie & Son, who all gained prizes in various sections of this fruit.

In the amateur department the most noticeable feature was the display of out-door grapes, which occupied a large portion of the tables set apart for the various fruits. Mr. Kilborn, of Clinton, took the largest number of first prizes.

Mr. Taylor, of St. Catharines, was also very successful. In his collection were to be found a large number of the newest varieties.

The kinds which were exhibited in the greatest perfection were Iona, Allen's Hybrid, Delaware and Adirondac. Pears were not shown in as large quantities as in some former years, but were of fine quality. Apples occupied the largest place on the tables, and were a show in themselves. H. J. Brown, of Niagara, had a fine twenty varieties, which took a first prize. The other entries of this standard fruit were too numerous to particularize.

Plums were shown in small quantities, and were only of medium merit. This is no doubt attributable to the lateness of the season.

Peaches were in considerable number, and mostly from the Niagara district, which is a favoured locality for the growing of this fruit. In this section Mr. H. J. Brown carried off the largest number of first prizes.

Melons were shown in considerable quantity, and some of the specimens were of enormous size and good quality.

In domestic wines made from the grape, an extraordinary progress was discernible, there being in the several sections of dry, sparkling and sweet wines, no less than 50 entries. For dry wine, Mr. James Brown had the first prize, a distinction which, considering he is only an amateur, and competed with his new-made wines against skilled professionals who showed old wines, does him great credit. The second prize for dry wine was awarded to Mr. Bauer, of Hamilton, who also obtained the first premium for sweet wine. This gentleman's sweet wine received the highest encomiums from the Judges, none of the other samples approaching it in quality. He manufactures largely for sale. For sparkling wine Mr. James Taylor, of St. Catharines, took first prize, and Mr. H. Bauer second. The Judges recommend that in future the prizes for wine should be divided into two classes, namely, professional (or those who manufacture for sale) and amateur (or those who make only in a small way.)

The show of Garden Vegetables was on the whole no way behind any previous one. Here, as heretofore, the exhibition was largely indebted to W. Burgess, W. Benham, of Guelph; Walls, of Kingston; Guthrey, of Toronto; A. W. Taylor, of Hamilton; Baker, and Allen, of Guelph; and other well known exhibitors. There were monstrous heads of cabbage that had defied the drought, tomatoes in abundance, and in short every variety of garden produce in this class.

The display of *Plants in flower* was rather meagre, though being arranged in the middle of the centre table they added greatly to the appearance of the place. The paucity of their numbers may be accounted for by the great difficulty experienced in sending them to the exhibition from a distance (all those shown were from the neighborhood of Hamilton) and by the unwillingness of owners to risk removal of valuable plants from the congenial atmosphere of a greenhouse to the chilly and unsuitable air which must needs pertain to any exhibition building at this time of year.

For the best collection of green-house plants in flower, not less than twelve specimens, Mr. J. Brown, of Hamilton, has first prize, and E. Townsend, do., second prize.

For the best display of plants in flower, distinct from other entries, the above named gentlemen retain the same rank—Mr. R. Rowe, of Hamilton, coming in for a third prize.

The show of cut-flowers was not nearly so large as at former exhibitions, though the past dry season may have had a great deal to do with it. Some very creditable entries were, however, made, amongst the most noticeable of which may be mentioned a collection of Dahlias—twelve standard Dahlias and twelve Bouquet Dahlias by Geo. Leslie and Son, Toronto nurseries, each entry of which gained a first prize; a collection of Gladioli by J. A. Bruce & Co., of Hamilton, which were very much admired, and received a first prize; a collection of Asters by M. Flanagan, Kingston; a collection of perennial flowers by Messrs. Leslie & Son, some of the varieties in which were imported from Great Britain last spring, and which were of fine form and color; a collection of Hybrid Perpetual Roses by the same; and a collection of Verbenas by J. W. Sinclair, Hamilton, all of which gained the distinction of a first prize.

## Fruit Growers' Association of Ontario.

The first annual meeting of the above Association, as organized under the new Agricultural Act, was held on Tuesday evening, the 22nd Sept., at the Court House, Hamilton. Contrary to what might have been expected, the attendance was but small, not more than sixty or seventy persons being present. The President, W. H. Mills, Esq., being absent through illness, the chair was taken by J. C. Rykert, M. P., Vice-President.

The minutes of the last meeting having been read, D. W. Beadle, Esq., Secretary and Treasurer, stated on behalf of the directors that there had not been time to put the report into presentable shape, as it would consist of returns from the fruit committees, and from a number of gentlemen resident in the various parts of the Province, and who are employed in fruit-growing. A report would, in due time, be prepared, and submitted to the Minister of Agriculture, when it would be given to the public. Four essays had been sent in on "the cultivation of the apple," and the committee appointed to adjudicate the prizes had awarded the first to the one bearing the motto, "The price of good fruit is eternal vigilance," Mr. W. Beadle, author, and the second to one from the pen of Mr. J. T. Duncan, of Bayfield. At the request of the meeting, Mr. Beadle then read his essay, which was greeted at the close with appreciative cheering. The Secretary-Treasurer then reported the state of the finances as follows:—

Balance on hand at last report . . . . .	\$ 21 28
Members' fees . . . . .	157 00
Government grant . . . . .	350 00
	<hr/>
	\$528 28
Paid stationery and printing . . . . .	\$43 78
Travelling expenses of Fruit Committees . . . . .	29 25 73 03
	<hr/>
	\$455 25

The annual address of the President was then read by Rev. R. Burnet. It gave an interesting *resumé* of the history of the Association since its organization in 1859, described its present legal basis and sphere of action, as defined by the New Agricultural Bill, referred to the amount of the Government grant, and urged the desirableness of its being increased, from the numerous ways in which it might be usefully expended, among which the importance of Entomological investigation to abate insect ravages upon fruit was named, and closed by pointing out various directions in which the Association might render itself of signal service in promoting the fruit-growing interest.

The election of officers was then proceeded with. Mr. W. H. Mills was re-appointed President, and Mr. J. C. Rykert was re-appointed Vice-President. Mr. D. W. Beadle was again elected Secretary and Treasurer. The following gentlemen were chosen Directors:—

His Honor Judge Logie, Hamilton, G. Leslie, Toronto, John B. Martin, Cayuga, C. Arnold, Paris, Rev. R. Burnet, Hamilton, A. M. Smith, Grimsby, J. Springer, Barton, George Muston, Guelph, W. Saunders, London.

Miscellaneous business was then in order, and a number of practical matters were discussed, the chief among them being the best methods of destroying certain insect depredators, and the necessity of more stringent measures being adopted to prevent robbery of orchards and gardens and spoliation of shade trees. On the latter subject it was resolved that the President and Secretary petition the Dominion Legislature, in the name of the Association, for the insertion of clauses in the forthcoming Consolidation Act, conferring summary powers on magistrates for the punishment of such offenders. A vote of thanks to T. Swinyard, Esq., General Manager G.W.R., for reduction of fares to members attending the meetings of the Association, closed the proceedings of the evening, and the meeting adjourned.

The next meeting will be held at St. Catharines, on Tuesday, the 13th day of October, 1868, in the Town Hall, commencing at 11 o'clock, a.m., to continue through the day and evening. The Directors will meet on the 14th. By arrangement with the Great Western Railway Co., members attending the meeting at St. Catharines will receive a certificate that will enable them to return at one-quarter fare.

In another issue we hope to give, in full, the President's Address, the Prize Essay, by Mr. Beadle, and other interesting documents for which we have not space in the present number.

### Apple Trees Killed by Frost.

To the Editor of THE CANADA FARMER.

SIR, According to promise, I now send you a list of my apple tree losses from the severity of last winter. The trees were planted two years ago last spring, and had done exceedingly well. Indeed, I had not previously lost a tree.

It will be easily seen which are the tender and which the hardy varieties. A few would have died from bark splitting, but at the same time they are blighted and dead. The following list shows the different varieties that were winter-killed:

261 trees.....	R. I. Greening.....	frost-killed	49
151 "	Baldwin.....	"	95
110 "	King of Tomkins Co. "	"	86
75 "	Ribston.....	"	28
25 "	Bellflower.....	"	11
50 "	Roxbury Russet.....	"	0
20 "	Fall Pippin.....	"	7
20 "	Twenty-ounce.....	"	4
10 "	Red Astrachan.....	"	0
10 "	Early Harrest.....	"	0
5 "	St. Lawrence.....	"	0
5 "	Kentish Filbasket.....	"	2
25 "	Spitzenberg.....	"	0
50 "	Colvert.....	split	2
50 "	Golden Russet.....	"	2
45 "	Famense.....	"	8

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More than the above list are damaged; those given are beyond recovery. A correspondent in a late number of the CANADA FARMER wrote favourably of King of Tomkins County as the apple for Canada. They have stood the worst of all with me, and a friend remarked to me a day ago that he had lost every one of his King of Tomkins County apples. Older trees of same varieties have stood better.

Last winter was about the coldest known in this region. The following are the registered degrees at and below zero: Dec. 12th - 5°; 13th - 4°; 14th - 16°; 19th - 12°. January 12th, 0: 17th - 8°; 22nd, 0; at noon - 2°; 27th - 13°; 28th - 4°. Feb. 3rd - 20°; 7th - 12°; 8th - 3°; 11th - 11°; 14th - 16°; 17th - 8°; 22nd - 12°; 29th, 0. March 2nd - 2°, - 5° at noon; 3rd - 28°; 4th - 11°; 5th, 0. Only twice at noon did the thermometer fall below zero. To this extreme cold and sudden great changes of temperature do I ascribe the loss of so many of my trees.

I have no doubt, if the trees had been older and more set in their growth, but little damage might have been done. I see all of the varieties growing by different individuals, from twelve to sixteen years planted, with little damage. There are none of King of Tomkins County of that age yet. J. McL

### New Mode of Destroying Wasps.

WASPS have been rather plentiful. I have for several years adopted a very simple, but very effectual, plan of getting rid of their nests. When I find a nest, I select the noon of a hot sunny day for my operations. I procure a very strong solution of cyanide of potassium, and I saturate a piece of lint, about three or four inches square, with the solution. This lint I quietly place at the outlet of the hole leading to the nest on the ground, in a bank, or elsewhere. Nothing more is requisite. Every wasp that arrives at the hole on its descent alights on the lint, and, after one or two gyrations, drops over the edge of the lint into the hole, dead, or else dies upon the lint—not one escapes. After sitting down by the side, watching the operation for about ten or fifteen minutes at most, the number of wasps arriving home becomes very much lessened, and then only a few odd ones arrive. I then dig out the nest. All are destroyed. There is no fuss, no risk of being stung, as every wasp coming home falls on the fatal lint, and has no escape. The evaporation of the cyanide is very rapid, and the air all around the hole is tainted, and the wasps seem fascinated by it, as I never see any turn away; they look as if they must settle, and when once they alight they have no power to raise themselves, the use of the wings is gone, and they are soon dead from the inhalation of the cyanide.

This is a very simple way of destroying the nest, because if you do not wish to take the nest, you may leave the lint there; it will destroy all the nest, and will do no harm to anything else.

When the nest is in a tree, I generally go in the evening, and hold the lint soaked in the cyanide under the bottom hole. The wasps soon begin to drop out, first one by one, then in a regular shower. Of course caution must be used to avoid the inhalation of the cyanide, but as so little is required, it is not very probable any accident will result from the proceeding.—Cor. in Journal of Horticulture

### Entomology.

#### The Apple Worm.

TO THE DIRECTORS OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

THE apple crop this year will be a very short one. This is due in large measure to the depredations of the apple worm, which is the caterpillar of a pretty little moth named "*Carpocapsa pomonella*," an insect, alas! far too familiar to the orchardist in its larva or caterpillar state, though but seldom seen in its perfected condition. Anything relating to this pest will at this season be deemed interesting, and while we may not advance much that is actually new, it is well where so much is at stake to be reminded from time to time of facts partially or wholly forgotten.

I believe all authorities agree that this insect passes the winter in its chrysalis, or inactive state, generally lodged in the crevices in the bark of trees, or in some other secure retreat. From the middle to the end of June the moths make their appearance, concealing themselves during the day, flying only at night. Late in June and early in July, they pair, and soon after deposit their eggs. Usually one egg only is attached to the eye, or blossom, end of the fruit, but occasionally they are fastened about the base of the stalk, for I have several times when cutting into fallen fruit found the worm which had eaten into the apple from this point. Mr. Walsh, State Entomologist for Illinois, has found two in a single apple, one of which entered at the eye, the other at the stem. I found this year what I believe to be a similar example, though the worms had left. Besides the usual channel from the eye to the core, there was in this instance another from the stem in the same direction, and there were two holes through which the castings of the worms had been pushed, one about half an inch from the stem—the other on the side of the fruit. In this instance the whole of the seeds had been consumed, and a large portion of the apple. Mr. Walsh has also found specimens which had been attached to the cheek of the apple, and made their entrance from that point, but these are all exceptional cases.

In a few days the egg is hatched, and the worm at once begins to burrow into the fruit, making its way towards the core, pushing its castings, which appear like a brownish powder, through the orifice by which it has entered. When it reaches the centre of the fruit it devours more or less of the seeds, and after a while eats a channel through the side of the apple, at the orifice of which its castings and refuse are now thrust out, and through which the caterpillar, when full grown, makes its escape.

In about three or four weeks it comes to maturity, and is then a little more than half an inch long, of a pale reddish or flesh colour, with a small reddish brown, horny looking head, and a patch of the same color and appearance on the upper part of the first segment or ring behind the head. There are also a few faint brown dots, and fine short hairs on each ring, but these can scarcely be seen without a magnifying glass. It has six hook-like feet, and five pairs of fleshy legs, by which it can readily be distinguished from the grub of a cutworm, or any beetle, these latter being furnished with only the six hook-like feet. It also spins a silken thread, by which it can let itself gently down from any height.

In some instances the worm leaves the fruit before it has fallen, but in most cases I believe they do not make their exit until after the apple has dropped; it is not, however, then long delayed. Here is a matter that should be noted, for if the apples are to be gathered with a view of destroying the worms, a daily visit should be made to the orchard for this purpose, for it is labor lost to gather the fruit after the grubs have left. The worm usually finds its way to the nearest tree, sometimes to the tree from which it has dropped, where having lodged in some obscure retreat, it envelops itself in a thin, whitish, silken cocoon.

Within the cocoon is the chrysalis, which is of a reddish brown colour, with two rows of small spines on each of the middle segments, and one row on the hinder ones. By means of these spines it works its way through the cocoon before the moth escapes.

The moth, when its wings are expanded, will measure nearly three quarters of an inch. Its fore wings are dark grey, streaked across with brown, with a large patch of brown on the end of each wing, tapering towards the tip, and having a horse-

shoe mark of a metallic or satin lustre in its centre. The hind wings are pale reddish brown, with a satin-like lustre.

There has been some uncertainty among American entomologists as to whether there are one or two broods of this insect during the summer. In Europe, from whence the moth is derived, it has long been regarded as double-brooded, and of late Mr. Walsh has shown that such is the case in this country, at least in his locality, Illinois. My own experience leads to a similar conclusion. I have this year reared the moth early in August from fruit gathered late in July, and have found young specimens of the worm again quite late in August. Mr. Walsh has observed that as a rule the first brood attack the early apples, while the second brood infest chiefly the later ones.

We come now to the practical bearing of these remarks, and enquire what remedies have been proposed and tested to check the ravages of this little pest? One method recommended, and which has already been referred to, is very good as far as it goes—it is to gather the fallen fruit and destroy the grub by dipping it in boiling water; or turn pigs into the orchard to eat the fruit as it falls. But this does not reach the worms which had left the fruit before it dropped, and there are doubtless many other specimens that escape by making their exit almost immediately after the fruit reaches the ground. The remedy proposed to reach these, and which originated with Dr. Trimble, of New Jersey, consists of hay ropes wound round the trunks of the trees, two on each tree, one two or three feet higher than the other. This acts as a decoy, affording them retirement and shelter; they make it their hiding place in which to spin their cocoons. By carefully examining these ropes every few days during the season large numbers of the culprits may be secured, in both worm and chrysalis state, and their ranks terribly decimated. It is stated that as many as a thousand have been taken in a season, in this manner, from one tree, and where it has been thoroughly tried along with the first method referred to, good crops have invariably resulted. Pieces of old cloth and various other fabrics have been used in place of the hay ropes with very good results. Complete extermination can hardly be looked for, since with the best of management a few will probably escape; but let the fruit grower do his duty, and with the help of birds and insects who prey upon these and similar creatures, there need be little fear of their depredations becoming formidable.

The same insect affects the pear, and destroys large quantities of this valuable fruit every year; the remedies are the same as in the case of the apple.

There is another species of grub destructive to the apple, but I am not aware that it has ever yet been found in Canada, although it has proved very troublesome in Massachusetts, Connecticut and New York. It is called the apple maggot, and is the larva of a two-winged fly, named by Mr. Walsh *Trypeta pomonella*. It is very different in appearance and habits from the common apple worm. It is a greenish white, footless grub; there are often six or more in an apple, and they do not burrow into the core, but eat channels through the flesh of the fruit. Should this insect make its appearance in any part of Canada I should like to receive specimens of it.

W. SAUNDERS.

### Hair Snakes.

WE have received a rather long communication from "Zebra," accompanied by a bottle containing a lively specimen of a parasitic worm commonly called a Hair-snake (*Gordius Aquaticus*), together with an intertwined mass of its thread-like young. As we have already noticed this singular animal in the CANADA FARMER for Jan. 15, 1868, page 28—to which we refer our correspondent—and as our columns are at present much crowded with other matters, we are obliged to dismiss this subject very briefly, and omit "Zebra's" interesting account of the birth and proceedings of this strange little family. He will find his specimens awaiting him at our office, but if he does not care to preserve them himself, we should like to add them to our own collection of alcoholic specimens. We may mention that the specimen we received from Mr. Arnold lived for upwards of six months in a bottle, the water being changed at long intervals.

CECROPIA CATERPILLAR.—J. H. of North Keppel, lately sent us a specimen of this fine insect well packed in a tin box, and with some of its appropriate food—the way in which we like to receive all our specimens. He found it on an apple tree, and was naturally much struck with its size and beauty; on its way to us it spun up in the box and formed its large silken cocoon. He will find a notice of it in our last number, page 278.

## Poultry Yard.

## Poultry at the Provincial Exhibition.

THE arrangements made for the poultry department were far in advance of the accommodation provided at any former Provincial Show, the pens being admirably arranged under a covered shed, enclosed by open battens, with doors at each end and one side. This enabled the judges to make their examination without being interrupted by visitors. As regards the coops, they would have been better not quite so deep from back to front, and with a step or some means for a proper inspection of the upper tier.

We were glad to see the Dorking classes in the ascendant, some chickens especially of this variety being very fine. Messrs. Peters, Bogue and Rykert had some excellent specimens, and gained prizes.

Polands and Hamburgs were not quite so well represented, and there can be no doubt that some importation of fresh blood from the old country is very necessary. Some fine white chicken Polands were shown by Mr. Bogue, of London; but, unfortunately, being entered in the class for adults, they were excluded from a prize.

In Buff Cochins the absence of the remarkably fine display that graced the last Exhibition in Toronto, and has been quite a feature in the Shows of the Poultry Association, was very noticeable. The dispersion of Col. Hassard's birds greatly reduced the Hamilton Show in this class, though some of them in other hands, or the progeny of his stock, made themselves known in the recent Exhibition. Some young birds were shown by Mr. Roach, of Hamilton, and among them the most beautiful colored pullet we have ever seen. The cockerel shown with her was equally meritorious, and for stock purposes they could not be better matched; but for exhibition, as the colors did not agree, they had to surrender the first prize to Mr. Rykert, who also obtained the same for adults, all very fine birds. White Cochins were not represented.

In the Light Brahma class there were some handsome pullets. Mr. Rykert had some very good birds of this variety. The Dark Brahmas were not represented at all.

French varieties were not forthcoming.

The Sebright Bantams were few, but good samples, although we should prefer them smaller. All the best birds in this class were shown by W. & J. Peters, of London. There were some good chickens of this variety. Other varieties of bantams deserve no special mention. The black were the best, but deficient.

We were disappointed in the specimens of Game birds, which were far behind those of the last exhibition in Toronto. Exhibitors in this class would do well to be more careful in matching the birds correctly, and seeing that the legs of both birds agree in color, as a want of correspondence in this respect is at once a disqualification.

We now have to mention the Spanish class, which we think a most meritorious one; such hens as those exhibited by Mr. Hincks (of Toronto), have, we opine, never been seen in Canada before. Some persons even expressed the opinion that their faces were enamelled or painted. It is to be regretted that an accident happened which prevented a pair being shown in the second pen exhibited by that gentleman; but the single hen was highly commended—and we think the judges might have placed a "very" before it. Other exhibitors showed good specimens, but all should in this class take knowledge of what Spanish fowls' faces should be.

Mr. Rykert, (St. Catharines), and Mr. Barnes, (St. Thomas) gained second and third prizes for very fine birds.

Some fowls of doubtful purity were shown in the adult "any variety" class; but in the chickens some good Leghorns were shown by Mr. Rykert, and in the extra some good Dominiques by Mr. Horning, of Waterdown.

All the common Turkeys were good; but the wild were not up to the standard in any way. We hear

that some dissatisfaction manifested itself respecting the amount of the awards in this class. We must say we agree with the awards of the judges, the only approach to the real wild turkey of Western Canada being in the pen for which the second premium was awarded. The first prize was withheld. The other pairs in the Wild Turkey class should have been entered in class 20, when they would have been in their right places. We hope shortly to give the points of the wild Turkey, very carefully prepared by Col. Hassard, with some remarks by that close observer and enthusiastic poultry fancier, on the variations caused by the accidental mixture of wild and domestic birds.

Geese were few but good, especially those shown by Mr. Cullis, of Hamilton, and Mr. Barnes, of St. Thomas. Aylesbury ducks were below the standard.

The Rouens were very few but very good. Those exhibited by Mr. Peters well deserved the prizes awarded for them. Other kinds were also good.

Some Guinea and Pea fowls were shown in fair condition for the time of year, and deserved their awards, but the pens were sadly too small for the large birds.

In pigeons there were few exhibitors, and the specimens deserved no special commendation.

We regret to see that the Rabbits were passed over without any premiums. We think this could hardly have been otherwise, as even in the common sorts better marked and sized animals should have been exhibited to obtain premiums.

The Judges in this class were Col. Hassard, Messrs. A. M. Howard, Miller, Finch, and Van Ingen, and they evidently acted upon what we believe to be a new rule (39 in the prize list), and abstained from awarding premiums to the best of a bad lot. Granting prizes at all events, even for most unworthy specimens, because no better were shown, has been too much the custom at Provincial Shows; but when we look at the object of these exhibitions, which is the improvement of stock, &c., we cannot but think the principle a correct one, and that if specimens were not up to the mark they should only be awarded premiums according to their deserts.

We congratulate the Society on this part of the Exhibition, and we cannot but perceive that the Ontario Poultry Society's efforts to improve the breed of fowls has not been in vain. We hear that Mr. Lamb, one of the largest London exhibitors, was prevented through illness from sending his specimens. Some pens were consequently empty; had they not been this would have probably surpassed any former Provincial Show. As it is, London, in the persons of Messrs. Peters and Bogue, contributed most largely and meritoriously to the recent Exhibition.

**BREAK OF NATURE.**—A Turkey, on the farm of Rotherwood, Georgina, was set to hatch eleven eggs, in order to propagate her breed, but she left her charge, and to the surprise and great interest of the family, as well as people in the neighbourhood, a turkey cock was seen to take possession of the nest and eggs; he sat constantly on the eggs till he hatched six poults, which he tends with parental pride.

## The Household.

☞ The three best medicines in the world are warmth, abstinence and repose.

**A BRIGHT IDEA.**—When Jemima went to school, she was asked why the noun "bachelor" was singular? "Because," she replied, "it is so very singular that they don't get married."—*American Paper.*

**PRESERVATION OF LEATHER.**—A contributor to the *Shoe and Leather Reporter* gives some valuable hints in relation to the preservation of leather. The extreme heat to which most men and women expose boots and shoes during winter deprives leather of its vitality, rendering it liable to break and crack. Patent leather particularly is often destroyed in this manner. When leather becomes so warm as to give off the smell of leather, it is singed. Next to the singeing caused by fire heat, is the heat and dampness caused by the covering of India rubber. India rubber shoes destroy the life of leather. The practice of washing harness in warm water and with soap is very damaging. If a coat of oil is put on immediately after washing the damage is repaired. No harness is ever so soiled that a damp sponge will not remove the dirt; but, even when the sponge is applied, it is useful to add a slight coat of oil by the use of another sponge. All varnishes and all blacking containing the properties of varnish should be avoided. Ignorant and indolent hostlers are apt to use such substances on their harness as will give the most immediate

effect, and these, as a general thing, are most destructive to the leather. When harness loses its lustre and turns brown, which almost any leather will do after long exposure to the air, the harness should be given a new coat of grain black. Before using this grain black, the grain surface should be thoroughly washed with potash water until all the grease is killed, and after the application of the grain black, oil and tallow should be applied to the surface. This will not only "fasten" the colour, but make the leather flexible. Harness which is grained can be cleaned with kerosene or spirits of turpentine, and no harm will result if the parts affected are washed and oiled immediately afterward. Shoe leather is generally abused. Persons know nothing or care less about the kind of material used than they do about the polish produced. Vitriol blacking is used until every particle of the oil in the leather is destroyed. To remedy this abuse the leather should be washed once a month with warm water, and when about half dry, a coat of oil and tallow should be applied, and the boots set aside for a day or two. This will renew the elasticity and life in the leather, and when thus used upper leather will seldom crack or break. When oil is applied to belting dry it does not spread uniformly, and does not incorporate itself with the fibre as when partly damped with water. The best way to oil a belt is to take it from the pulleys and immerse it in warm solution of tallow and oil. After allowing it to remain a few moments the belt should be immersed in water heated to one hundred degrees, and instantly removed. This will drive the oil and tallow all in, and at the same time properly temper the leather.

**RATS.**—Rats originally came from Norway, and I wish they had originally staid there.

They are about as uncalled for as a pain in the small of the back.

They can be domesticated dreadfully easy, that is as far as getting in cupboards and eating cheese and knowing pie is concerned.

The best way to domesticate them that I ever saw is to surround them gently with a steel trap; you can reason with them to great advantage.

Rats are migratious—they migrate whenever they have a mind to.

Pizen is also good for rats—it softens their moral nature.

Cats hate rats, and rats hate cats, and—who don't?

I suppose there is between fifty and sixty millions of rats in America, but I quote entirely from memory—and I don't suppose there is a single necessary rat in the whole lot. This shows at a glance how many waste rats there is.

Rats enhance in numbers faster than shoe pegs do by machinery. One pair of healthy rats is all that any man wants to start the rat business with, and in ninety days, without any outlay, he will begin to have rats—few turn oph.—*Josh Billings.*

## Poetry.

## After.

After the shower, the tranquil sun;  
After the snow, the emerald leaves,  
Silver stars when the day is done;  
After the harvest, golden sheaves.

After the knell, the wedding bells;  
After the bud, the radiant rose;  
Joyful greetings, from sad farewells—  
After our weeping, sweet repose.

After the burden, the blissful meed;  
After the flight, the downy nest;  
After the furrow, the waking seed;  
After the shadowy river—rest.

—*Round Table.*

## Katy did.

Throughout the night I hear the cry go up toward the stars.  
And the answer, in denial, seems to beat against the bars  
That lie across the gates of pearl, as surf beats on the shore,  
And the night rings with a pleading I have never heard before.

For though full off the Katy did its bold assertion made,  
And still the prompt denial rang throughout the willow glade,  
To-night they seem to hold in tune the harmonies of song,  
And, half forgetful of the hours, I linger late and long.

But who has known what Katy did? and when was it all done?  
How long will the contention last? When was it first begun?  
When David watched his father's flocks, upon the verdurous plain,  
I wonder if he heard their cry with pleasure or with pain.

Or when adown the sacred Nile swept Cleopatra's barge,  
I wonder if the Katy's cry rose from the Lotus marge,  
Was Cheops, as his eye surveyed the mighty Pyramid,  
Still puzzled with the query as to what poor Katy did?

Since Cleo's page no record shows—since Thalia's lips are sealed—  
It scarce can matter to us now though it were all revealed—  
Oh, Katy! whether true or false, there's one thing that I know  
It all should be forgotten, since it happened long ago.

Miscellaneous.

The New London Dog Law.—A good anecdote relative to Sir Richard Mayne's law of muzzling dogs is in circulation at the clubs. An officer of the Guards went out the other day with a favourite dog with a muzzle fastened on his tail. He had not gone far before he was accosted by a policeman, who told him that as his dog was unmuzzled he should take it up and detain it. This the officer in question defied him to do, maintaining that as his dog had a muzzle on his tail he had complied with Sir Richard Mayne's order, because it was not stated where the muzzle was to be placed on the dog. This so fairly baffled the intelligent policeman that he at once gave way, and let the Guardsman depart in peace with his faithful companion.

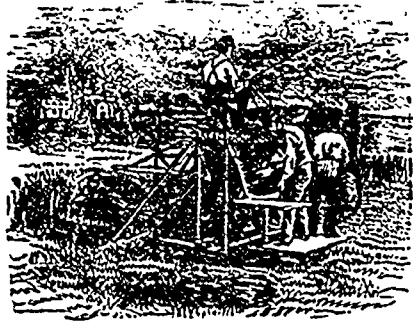
THE WORLD.

"It's a very good world to live in,— To lend, to spend, or to give in; But to beg, or to borrow, or recover one's own, It's the very worst world that ever was known."

So some cynical individual has written. It may be true, but it is also true that this is the best world as yet known by us. It is barely possible that the cynical souls may go further and fare worse. Let us hope not. &c.

Advertisements.

Paxton, Tate & Co., Port Perry, Ont.



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AGRICULTURAL IMPLEMENTS OF ALL KINDS, STAVE & SHINGLE MACHINERY, OSCILLATING MULLEY SAWS, TURBINE WATER WHEELS, MILL CASTINGS, etc., etc., MADE TO ORDER.

Repairing of all kinds promptly attended to.

WARRANTY.

We warrant the Marsh Harvester to be well made, of good material, and when properly used, not liable to get out of repair; to be a good grain cutting machine upon which two experienced binders can bind an average grain on a suitable ground, from eight to twelve acres in twelve hours, and that it will work on as rough ground as any other Reaper.

Port Perry, March 28, 1868. PAXTON, TATE & CO. v571f

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IN CONNECTION WITH MEDICAL FACULTY OF MCGILL UNIVERSITY, UNDER THE PATRONAGE OF THE BOARD OF AGRICULTURE, PROVINCE OF QUEBEC. (ESTABLISHED 1866.)

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FRUIT AND ORNAMENTAL TREES FOR FALL OF 1868.

WE have the pleasure of announcing that we are prepared for the Fall Trade with an unusually large and well grown stock, embracing,

Standard and Dwarf Fruit Trees.

Grape Vines, new and old sorts, strong open ground plants. Currants, Raspberries, Blackberries, and all the small fruits.

ORNAMENTAL TREES AND SHRUBS.

Roses and Flowering Plants of every description.

Nurseries, Dealers, and others, purchasing largely, will be dealt with liberally, and all orders, however small, will receive prompt and careful attention. Parties interested will do well to consult the following Catalogues, which are just issued, and will be sent prepaid on the receipt of 10 cents each, for Nos. 1 and 2, and 5c for No. 3.

No. 1 Descriptive and Illustrated Catalogue of Fruits, No. 2 Descriptive and Illustrated Catalogue of Ornamental Trees, &c. No. 3, Descriptive Green House Plants. No. 4, Wholesale Catalogue.

ELWANGER & BARRY,

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FALL PLANTING.

TORONTO NURSERIES.

The attention of Purchasers is directed to our large and unusually fine Stock of

Fruit Trees, Ornamental Trees, Flowering Shrubs, Grape Vines, (Foreign and Hardy Varieties) Currants, Gooseberries, Strawberry Plants, &c.,

All grown with a view to suitability to the climate of Canada. We pack in a manner to ensure safe transportation to the most distant parts.

Priced Descriptive Catalogues sent to applicants enclosing a 2-cent stamp for postage.

Address all Orders and Letters to GEO. LESLIE & SON, LESLIE P. O.

Observe in Price List the large number of First Prizes awarded our productions at the Provincial Exhibition. v5-19-1t.

WINDSOR NURSERIES.

THE STOCK OF TRETT TREES, &c., for Fall planting, is very large and well grown, particularly the Dwarf Pears and Dwarf Apples, the cultivation of which is made a specialty.

Persons intending to plant Trees, should, before purchasing elsewhere, send at once for a priced Catalogue, which will be sent free; also, for a copy of the

CANADIAN FRUIT CULTURIST, sent free by mail for 25 cents, giving full instructions for the proper location, preparing the ground, planting and after cultivation of all kinds of Fruits; and Descriptive Lists of the best varieties suitable for the different sections of Canada.

JAMES DOUGALL, Proprietor, Windsor, Ont., 1st Oct., 1868. v5-19-1t.

FRUIT GROWERS' INTER-PROVINCIAL PRIZE.

THE FRUIT GROWERS' ASSOCIATION and International Show Society of Nova Scotia offer a Prize, consisting of a GOLD MEDAL AND ONE HUNDRED DOLLARS in money, for the best collection of APPLES, six of each sort, grown in any Province of the Dominion, to be competed for at the Great Agricultural and Industrial Exhibition, which will open in HALIFAX, on the FIFTH day of OCTOBER next; the competition to be subject to the general regulations of the Exhibition, and Judges to be appointed by the Association. By order, J. R. HEA, SECRETARY v5-19-1t.

Windsor, N. S., 6th August, 18 68.

FUNDS FOR INVESTMENT.

THE TRUST AND LOAN COMPANY, of Upper Canada, have funds for investment, at their usual rate of interest, on the security of improved real estate. Loans made for fixed periods, or repayable by annual instalments. Further and full information can be had from the Valuers in each locality, by letter addressed to the Commissioners at Kingston, from MESSRS. PATTON, OSLER & MOSS, Or J. W. G. WHITNEY, ESQ., Toronto. v5-15-2t.

IMPORTANT AUCTION SALE

OF PURE BRED SHORT-HORNED CATTLE AND LEICESTER SHEEP.

THE Subscriber has received instructions from Mr. Wm. Lougheed to offer for sale by Auction, at his farm, Lot No. 80, Township of Oronodaga, in the W. of the Catherine South of the R. & L. H. R., on Thursday, the 15th Oct., 1868, the following valuable stock:

Three Cows with Calves, two Heifers, two years old, do.; three Heifer Calves, one and a half years old; one Grade Heifer, two years old, two years of Shagring Leicester Ewes, eight pair Two Lambs, two Rams, and one Lam Lamb. Full Pedigrees of the Durhams will be furnished at a rate.

Terms of Sale.—Twenty months credit will be given on terms to be approved on first notice.

To commence at eleven a.m. HENRY PEATMAJ, Auctioneer. v5-18-2t.

FOR SALE, THE THREE-YEAR OLD DURHAM BULL,

Belonging to the Glenvale Club, sired by that thorough-bred Durham Bull the "Red Rover," owned by William Starks, Esq., of Pittsburg. The Stock of this Bull has given general satisfaction to the Club and all others that have had any of the Stock. The Bull can be seen at any time at the Residence of Robert Gibson, Esq., Township of Kingston. If not sold before the County Show, he can be seen on the show grounds on that day.

JOSEPH DAVIDSON, PRINCIPAL. v5-19-1t.

IMPROVED BERKSHIRE PIGS,

THOROUGH BRED, and a number of Imported and Proven First Prize Animals. One Litter for Sale at LOW FIGURES.

J. F. CASS, ORIGINAL. v5-18-2\*

MILLER'S INFALLIBLE. Illustration of a dog.

TICK DESTROYER FOR SHEEP!

DESTROYS the TICKS, cleanses the skin, strengthens and promotes the growth of the wool, and improves the condition of the animal.

It is put up in boxes at 25c, 50c, and \$1, with full directions on each package. A six box will clean twenty sheep. HUGH MILLER & Co., Medical Hall, Toronto. v4-14-4f.

THE BRIGHTEST ITALIAN QUEENS IN AMERICA.

HAVING IMPORTED three extra fine Queens from the Dzierzon Stock, I can now furnish an unlimited number of the brightest Queens ever offered for sale. Price as usual, \$5.

SAFE DELIVERY GUARANTEED. I will also be able to furnish an unlimited number of Italian Stocks in the Fall, Italianized with Queens from the imported stock. Price in the S. B. hive \$15—in the D. B. hive \$20. Orders must always be accompanied with the money, and will receive prompt attention. J. H. THOMAS, ATLANTIAN, Brooklyn, Ontario. Aug. 1, 1868, v5-15-4f.

Duncan's Improved Hay Elevator.

PATENTED April 12th, 1867. THE cheapest and simplest constructed Fork in use in the Dominion of Canada. County or Township Rights for the manufacture of the same Fork may be obtained from the undersigned. JAMES W. MANN, Port Dover, Ont. v4-20-1f.

THE BEST SHEEP MARK YET INVENTED.

It is made of tinned wire stamped with name and number. Is cheap, does not wear out, and looks well. Price three cents each. ARCHIBALD YOUNG, Jr., Sarnia, Ont. v5-15-1f-e-o-l.



# THE AMERICAN ENTOMOLOGIST.

THE AMERICAN ENTOMOLOGIST, edited by BENJ. D. WALSH and C. V. RILEY, State Entomologists respectively of Illinois and Missouri, and copiously illustrated, treats of all kinds of Noxious and Beneficial Insects. It will be found invaluable to every Farmer, Gardener, and Fruit-grower, and to every one taking an interest in the fascinating study of Entomology. Terms, \$1.00 per annum. The first number will appear September 1st. Sample copies and prospectus sent on application. Send in your subscriptions to

R. P. STUDLEY & CO., Publishers, St. Louis, Mo.

## THE FALL CAMPAIGN of MOORE'S Rural New-Yorker, the Leading and Largest-Circulating RURAL LITERARY and FAMILY NEWSPAPER, begins a Quarter Oct. 3, and hence Now is the Time to Subscribe!

Eight Large Double-Quarto Pages, illustrated, with over a dozen distinct Departments, each ably conducted, the Best Talent being employed. Election will soon be over, when everybody, in both Town and Country, will want the most Progressive, Timely, Entertaining and Useful Weekly of its Class—MOORE'S RURAL. The 13 Numbers of this Quarter (Oct. to Jan.) sent, On Trial, for Only FIFTY CENTS! Try the Trial Trip! Address

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P. S.—"We recommend every farmer's immediate attention to this circular." J. W. Forman, Troy Mills, Iowa; O. J. Braze, Egremont, Mass.; Charles Palmer, Hillsdale, N. Y.; John Gilder-sleeve, Ansterlitz, N. Y.; Russel Tremain, Postmaster, Green River, N. Y., and a hundred others.

## TO INTENDING BEE-KEEPERS.

A few Stocks of Bees, this year's increase of the

### EDITORIAL APIARY,

are for Sale on the following terms:

ITALIANS IN THE THOMAS' HIVE, WITH RIGHT, \$18.00  
HYBRIDS Do. Do. \$12.00  
COMMON BEES Do. Do. \$10.00

The above prices are for single-boarded hives; double-boarded ones will be charged \$1.00 extra. Bees packed and shipped on G. T. R. or G. W. R. to any point desired.

Orders accompanied with the money, to be addressed

Rev. W. F. CLARKE,  
Editor CANADA FARMER,  
GUELPH.

v5-10.

## COTSWOLD and SOUTH-DOWN RAMS.

Moreton Lodge, Guelph, Ontario.

### ANNUAL SALE OF PURE-BRED STOCK.

MR W. S. G. KNOWLES, begs to announce, that he has received instructions from Mr. FREDERICK WM. STONE, to Sell by Auction, on Thursday, the 15th day of October, 1868, at Moreton Lodge,

30 GRAND COTSWOLD RAMS.

10 SPLENDID SOUTH-DOWN RAMS.

At which time will also be offered,

30 Famous Cotswold and South-Down Ewes, and about 25 Improved Berkshire Pigs, Boars and Sows, principally bred from importations in Oct. last. Sale to commence at 1 p.m., prompt. Moreton Lodge, Guelph, Oct. 1, 1868. v5-10-1t.

## SHORT HORN BULL,

OF THE "DUCHESS" TRIBE,

### FOR SALE.

## 9TH DUKE OF THORNDALE.

ROAN, bred by Samuel Thorne. Calved August 20th, 1864. Got by 6th Duke of Thorndale, 4752. (see note.)—out of 5th Duchess of Thorndale, by Imperial Duke, (18083) 3d Duchess of Thorndale, by imported Duke of Gloster, (11382)—Duchess 66th by 4th Duke of York (10167)—Duchess 55th by 4th Duke of Northumberland (3649) Duchess 35th by Norfolk (2377)—Duchess 33d by Belvedere (1706)—Duchess 19th by 2d Hubback (1423)—Duchess 12th by The Earl (646)—Duchess 4th by Ketton 21 (710)—Duchess 1st by Comet (155)—by Favourite (252)—by Daisy Bull (186)—by Favourite (252)—by Hubback (319)—by J. Brown's Red Bull (97).

NOTE.—6th Duke of Thorndale, 4752—bred by Mr. Thorne, and sold for \$5,000. Got by 3d Duke of Thorndale (17149)—out of 4th Duchess of Thorndale by 2d Grand Duke (12961)—Duchess (—) by Duke of Gloster (11382)—Duchess 66th by 4th Duke of York (10167)—Duchess 55th by 4th Duke of Northumberland (3649)—Duchess 35th by Norfolk (2377)—Duchess 33d by Belvedere (1706)—Duchess 19th by 2d Hubback (1423)—Duchess 12th by The Earl (646)—Duchess 4th by Ketton 21 (710)—Duchess 1st by Comet (155) etc., as above.

9th Duke is in the best condition, a very quick server—perfectly sure getter—his dam is from the same cow that dropped 11th Duke of Thorndale, now the property of M. H. Cochrane, Esq.,—will be sold low for want of use. For particulars address

H. G. WHITE,  
SOUTH FRAMMINGHAM,  
Middlesex County, Mass. U.S.

v5-10-1t.

## Markets.

### Toronto Markets.

CANADA "FARMER" Office, Sep. 30th, 1868.

The Produce Market during the past fortnight has continued quiet; except in barley there has been little doing. The barley market has been very irregular, rising and falling in sympathy with Oswego.

### FLOUR AND MEAL.

Flour.—The market has been unusually quiet; very few lots have been offering, and there has been little or no desire to buy. Some buyers will not give over \$5 40; holders refuse to sell at anything less than \$5 50. In the higher grades of flour there has been a few lots selling; a few 100 bbl lots of extra sold at \$6 50; and of superior at \$7. Fall wheat flour is scarce and finds ready sale.

Oatmeal.—Selling in small lots at \$6 50.

Corneal.—Only a small trade doing; prices range from \$4 to \$4 50.

Bran.—Selling at \$15 per ton.

### GRAIN.

Wheat.—The market has been decidedly dull since our last report. No sales of any importance have taken place. Spring wheat has been offering rather more freely, but the demand is so limited that no sales take place. Holders ask \$1 18 to \$1 20 for spring, in car or cargo lots, but there are no buyers except in a few cases at over \$1 15 to \$1 16. The demand is only from local millers, who will only buy sufficient to supply the wants of local consumption. Fall wheat is in better demand, and sells readily in car lots at \$1 35 and \$1 36. Very few lots of Fall are offering. The street market is beginning to be fairly supplied. The following are the street prices which have been paid. Spring, \$1 15 to \$1 16. Fall white, \$1 30 to \$1 35.

Oats.—The market has been firm. Car lots offering sold freely at 51c. on the track. On the street market 52c. was freely paid for good samples.

Barley.—The market since our last review has been very irregular, advancing and declining alternately in sympathy with Oswego. Prices are, however, now fully 8c. to 10c. higher than they were a week ago. Yesterday the market took a start and advanced 6c. Car and cargo lots were to-day selling freely at \$1 18. The sales to-day were 5,000 bushels at \$1 18 f. o. b., 3,000 bushels at \$1 17 f. o. b.; two cars at \$1 18 f. o. b.; 7,000 bushels in car lots at \$1 18 f. o. b. The market closes very firm at \$1 18 f. o. b. On the street market there was a fair business doing. The receipts, however, do not come up to what is usual at this time of year. During no day last week were there over 35,000 bushels brought in by farmers, and the average receipts from farmers would not amount to over 18,000 or 20,000 bushels per day. Prices on the street kept steadier than on 'Change. To-day \$1 17 to \$1 18 was the price paid for ordinary samples. A few choice samples brought as high as \$1 19 1/2.

Peas.—The market has been very quiet. There were no wholesale transactions reported. On the street market 91 cents was the price.

Rye.—Only a few loads coming in from farms, a' waggons. Buyers are paying 80 cents on the street market.

### HAY AND STRAW.

The market has been fairly supplied. Hay has been selling at from \$12 to \$15, and straw at from \$7 to \$10.

### PROVISIONS.

The market has been very dull. Butter and cheese are the only articles in which there is any animation.

Butter.—The shipping demand is steady, without any change in price. Round lots are selling at from 20c. to 21c. Dairy, in shipping lots, would bring 22c. Very few lots offering on the market; pound talls bring from 22c. to 25c.

Eggs.—Very few coming in; selling only in a retail way, from 12 1/2c. to 15c.

Cheese.—Hold firmly at from 12c. to 13c.

Dressed Hogs.—Receipts are now considerable; selling at from \$6 50 to \$7 25.

Pork.—Very little in the market.

Bacon.—Nothing doing, except in a small way.

Salt.—Liverpool has been in good demand. Lots are now worth from 85c. to 90c. on the wharf. American, in barrel, sells at \$1 60 on the wharf.

Wood.—Unchanged. Selling in small lots at from 26c. to 27c.

Hops.—There is a fair supply offering. We quote—New, from good to extra, per lb., 20c. to 25c.; fair to good, do. 15c. to 20c.; old, 10c. to 15c.

Flax.—In fair demand, but very few lots offering. There are buyers at \$8 to \$10 per 100 lbs.

### THE CATTLE MARKET.

Beef.—The market has been well supplied with all kinds of cattle, and there has been a fair demand, especially for first-class cattle for export. We quote per 100 lbs., dressed weight: 1st class, \$8 to \$8 50; 2nd do., \$5 to \$5 50; 3rd do., \$4 to \$4 50.

Sheep.—Have also been offering freely, and met with a ready sale at the following figures: 1st class, \$4 to \$4 50 each; 2nd do., \$3 to \$3 50; 3rd do., \$2 to \$2 50.

Lambs.—There has been a fair supply on the market, and the demand has also been good. All the lots offered found ready sale at the following prices: 1st class, \$2 50; 2nd do., \$2; 3rd do., \$1 50. Calves.—Scarce, and not much enquired for; worth from \$5 to \$6.

Live Hogs.—Several lots have been offering, principally from the west. Prices ranged from 6c. to 6c. per lb.

HIDES AND SKINS, per lb.—Hides, green, rough, per lb., 5 1/2c.; do. green, inspected, 7c.; do. cured and inspected, 7 1/2c. to 8c. Calveskins, green, 10c.; cured, 12c.; dry, 18c. to 20c. Lambskins, green, 45c. to 50c. Sheepskins, 60c.

London Markets, Sept. 29.—Red Fall Wheat per bushel, \$1 10 to \$1 12 1/2; white wheat, \$1 15 to \$1 20; spring wheat, \$1 10 to \$1 18; barley, \$1 12 1/2 to \$1 15; peas, 89c. to 90c.; oats, 42c. to 43c.; butter in rolls, 23c. to 24c.; do. in tubs or crocks, 18c. to 20c.; lard per lb. 10c. to 12 1/2c.

Galt Markets, Sept. 29.—The market is busy. No change in wheat, but tending downwards; considerable quantities coming in. Barley, 90c. to \$1 10—a very good supply coming in but quality poor. Eggs, 12c. to 13c. Butter has risen very rapidly of late, 20c. to 23c. Potatoes, 75c. to 90c. per bush. Peas and oats scarce. Oats, 43c. to 52c. Peas, 90c. to 95c. Hay, \$11.

Gravel Markets, Sept. 29.—Fall Wheat, \$1 20 to \$1 26; spring wheat, \$1 10 to \$1 14; oats, 50c. to 55c.; peas, 89c. to 90c.; barley, \$1 00 to \$1 12; wool, 26c.; hides per 100 lbs., \$4; beef, do. \$7 to \$8; pork, per 100 lbs., 00c. straw per load, \$3; hay per ton, \$10 to \$11; eggs, per dozen, 12c. to 13c.; butter, per lb., 20c. to 22c.; apples, per bushel, 00c.; potatoes, per bag, \$1 15 to \$1 50; sheep skins, 45c. to 50c.

New York Produce Market—Flour—Heavy, 10c. to 15c. lower—receipts, 17,000 barrels and 924 bags; sales, 8,700 barrels, at \$6 80 to \$7 15 for superfine state and western; \$7 55 to \$8 05 for common to choice extra state; \$7 15 to \$8 70 for common to choice extra western. Rye Flour—quiet, at \$5 25 to \$5 10. Wheat—2c. to 3c. lower; receipts, 55,800 bushels; sales 45,000 bushels at \$1 55 No. 3 spring. Rye—quiet. Corn—About 1c. lower; receipts, 46,000 bushels; sales, 78,000 bushels at \$1 12 to \$1 14 for unshelled; \$1 16 to \$1 17 for sound mixed western. Barley—scarce and firm; receipts, 9,400 bushels. Oats—1c. lower; receipts 83,000 bushels; sales 41,000 bushels at 7 1/2c. to 7 3/4c. for new western. Pork—a shade easier at \$28 32 to \$28 62 for fresh mess; \$28 37 to \$28 70 for old mess. Lard—Heavy and drooping at 18 1/4c. to 19 1/4c. for steam; 17 1/2c. to 17 3/4c. for kettle rendered.

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