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VOL. IV. No. 19.

TORONTO, CANADA, OCTOBER 1, 1867.

POSTAGE FREE.

The Field.

Woodbridge Agricultural Works.

THE above-named works, of which we give here-with an engraved representation, are located in the village of Woodbridge, Township of Vaughan, and County of York. Having recently paid them a visit, we are glad to be able to give our readers some particulars concerning them. In common with all similar establishments that we have visited, the hum and bustle, the hurrying to and fro, the abundance of raw material, and scarcity of the finished article, plainly indicate the extensive demand there is for agricultural machinery, and prove the general prosperity which exists all over the country. We know of no manufacturer of farm implements who is not straitened for shop room, deluged with orders, and unable to satisfy the existing demand. This is a good augury, and not the least of its many advantages is this—that while there is room for honorable competition, there is no temptation to ungenerous rivalry. All have ample scope to work, and may heartily wish each other well.

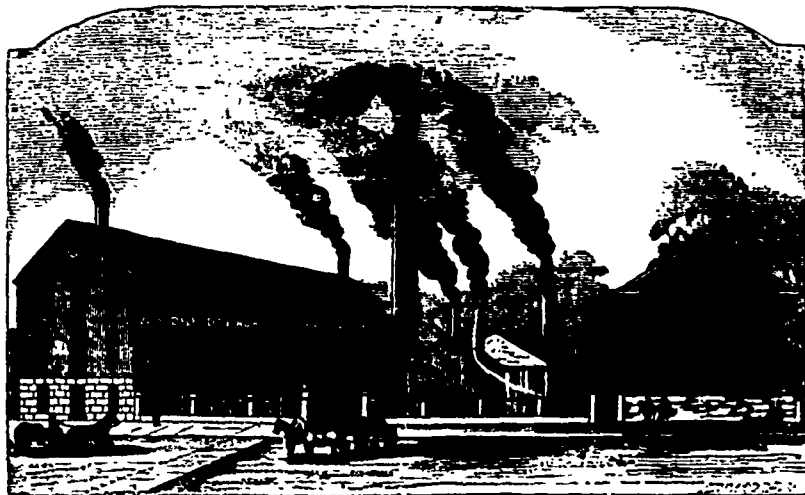
The proprietor of the Woodbridge works, Mr. John Abell, commenced business at his present location in 1849. The buildings represented in the accompanying illustration were erected in 1860, but have recently been thoroughly overhauled, and freshened up exteriorly by repairing, so that they look "as good as new." Extensive as they are, they do not furnish sufficient scope for the business now done, and an additional shop, one hundred feet long by thirty-six feet wide, is about to be erected. Upwards of sixty hands are in regular employ in the several departments, which consist of a foundry with blasting furnace; a smithery with four forges; a carpenters' shop completely furnished with planing, morticing, sawing and boring machines; a machinists' shop with lathes for every description of turning, large shears, and machines for making bolts, cog-wheels, punching and cutting gear, and screw threads of all sizes; a roomy paint shop; and large pattern store-house. A trip hammer is in course of erection. Hand labour is dispensed with as much as possible, and machinery employed whenever practicable. Mr. Abell is a thorough machinist, and when he wants a labour-saving contrivance, appears to be at no loss to invent one if it be not ready to his hand. Some ingenious expedients for lessening hand labour and expediting

work may be seen in his factory, and he has several patents on parts of his machinery—that on the gearing of his threshing-machine being especially noteworthy. A suit for infringement of this patent is pending between Mr. Abell and the Hall Agricultural Works in Oshawa. An engine of twenty-five horse-power, manufactured by Mr. Abell himself, supplies the motive force by which the machinery in these shops is driven, and some idea of its excellence may be gathered from the fact, that though in constant operation for upwards of six years, it has not yet required any alterations or repairs. A great variety of work is done at this establishment. First and foremost, all the machinery required in grist and saw-mills is here manufactured. Next may be mentioned threshing-machines. Some account was given in our 1st. Jan. issue of the present year, of the distinctive features and excellences of the thresher manufactured at these works. We are glad to find that it commands ready sale, and that no fewer than one hun-

cutter-bar ten inches longer than usual. About one hundred mowers and reapers have been manufactured at these works the present year, and as a novel, yet effective method of advertising the reapers, Mr. Abell has had one in operation among the farmers during the harvest which has just been gathered. The self-raking attachment gives great satisfaction, from the fact that it saves the work of two hands in the harvest field. Among other articles made at this establishment, we may mention Birdsell's clover thresher and huller, a first-class machine for threshing, hulling, and cleaning clover, capable of preparing for market from twenty to thirty bushels per day. Portable steam engines are also manufactured here, and Mr. Abell is perfecting his arrangements for getting up a ten horse-power engine with two oscillating cylinders, the whole made as light as possible, and so constructed as to do stationary work, such as driving a threshing machine, and also to be used as a traction engine. A crushing mill for coarse grinding

barley, oats, peas and corn, is another machine which is made at this establishment, and is well worthy the attention of farmers. Drag saws, straw-cutters, and a combined roller and clod-crusher, which was figured and described in our issue of Feb. 1 last, are also made here, together with several styles of plough, among which an excellent moulding or ridging plough for potatoes, turnips, &c., and the "Eclipse," a general purpose plough, particularly attracted our notice.

Mr. Abell is preparing to manufacture a ditching machine, of the success of which he entertains very sanguine hopes. It is the invention of Mr. Henry Carter, of Aylmer, and was exhibited



dred are being turned out at the present season. Pitt's horse-power is the one made at these works to supply the driving force required by the thresher. All things considered, this is probably the best horse-power in use, as it stands wear and tear better than any other. Mowers and reapers in three styles are manufactured by Mr. Abell: Ball's Ohio as a combined machine, Cayuga Junr., as a single mower, and Wood's self-raker as a single reaper. There is no better combined machine in the world than Ball's Ohio, and Wood's reaper stands at the head of its class. We saw it at the Michigan State Fair, laden with the honors it had just reaped at the French Exposition. Of the merits of Cayuga Junr. as a mower, we cannot speak so highly, being under the impression that there are other mowers equally good, if not better. The Ball's Ohio made here is furnished with a

at the last Provincial Show. Since then some improvements have been made in it, so as to adapt it both to light and heavy soils. It is very desirable that an effective ditcher should be introduced into every locality. It would greatly facilitate that most necessary operation, draining, for want of which so many farms are suffering, and the general prevalence of which is imperatively called for, if we are to be distinguished for any agricultural progress worthy the name.

Mr. Carter's drain tile ditching-machine was exhibited at the recent exhibition at Kingston, and was recommended by the judges as deserving of an extra prize. Mr. Abell's splendid threshing machine was also on the ground, and, as on former occasions, gained the first premium. The material, the workmanship, and finish of this machine, are all first class.

Agricultural Products at the Provincial Exhibition.

FIELD ROOTS.

THERE was not a large display in this department, though some of the specimens had, notwithstanding the drought, attained a fine growth, and exhibited the usual mammoth proportions of show roots. Mangel Wurzel had a few good representatives in the various sorts of red and yellow, long and globe. The exhibitors of these were J. Pratt, of Cobourg; E. Calvert, of Opps; Thos. Irving, of Montreal; J. Nimmo, of Camden, and the Rev. J. Williamson. Very good specimens of sugar beet were shown by Irving, Pratt, and R. Spooner. In field parsnips and red and white carrots, of which there was a small but good display, R. Guthrie, W. Benham, W. Eagleson, J. N. Watts, G. Croft, J. Irving, A. W. Taylor, R. Spooner, G. Calvert, and E. Barden, were exhibitors. There were some good specimens of Knol Rabi, and also of chicory. Of field turnips, which were displayed on the floor in the centre, there was a very meagre show in point of number—a fair indication, probably, of the almost total failure of this crop in those sections of the country where the drought has been most persistent. The white globe, yellow Aberdeen, purple-top, green-top, and grey stone varieties, had each a few representatives. The only new names which appeared on any of these articles were those of R. Draper, and W. Craig, of Kingston.

The same paucity in the display marked the collection of field pumpkins and squashes, though one or two were of large size, but not equal to the mammoths that are sometimes exhibited. A dozen would probably count up the whole number.

Of potatoes, there was not a large, but a very fair collection, with some remarkably fine samples especially of garnet chills, peach blows and flukes. A collection of thirty-two varieties was furnished by R. Guthrie. A. Bond, of Storrington also showed a good collection of six varieties. Among the exhibitors either of single varieties or more, were Messrs Armstrong, Yorkville; G. Bennett, Cobourg; J. Jackson, Newburg; W. Eagleson, and W. Riddell, Hamilton Township; Spooner, Kingston; and others. Before leaving the roots and proceeding to notice the grain, mention may be made of a very interesting collection of various agricultural products sent by the Agricultural Society of By-art, in North Peterborough, a newly settled district opened out under the auspices of the Canadian Land and Emigration Company. The collection consisted of quite a variety of produce, and spoke well for the capabilities of this section of country. The assortment comprised Fall and Spring Wheat of good quality barley, peas four different varieties from seed imported directly from England. One kind especially, Carter's early, was pointed out as particularly promising, and requiring only six weeks to ripen. There were also some very fine citrons, maize, potatoes, cucumbers, flax, besides some other products. The Company are offering the land to settlers at a very low price, and bestirring themselves energetically to open out this part of the country, which, though far back, seems to be no inhospitable region.

GRAIN.

There was a fair display of white and yellow corn exhibited by J. B. Aylesworth, Newburgh; C. Gardner, Elizabethtown; H. J. Brown, Niagara; R. Spooner, Kingston; J. H. Busch, Wolfe Island; J. Miller, Virgil; J. Armstrong, Yorkville; and others. The show of wheat was, on the whole, very good, some of the samples being particularly excellent, and rendered the task of awarding the prizes no easy matter. T. Cullis, Hamilton Township, was the fortunate and deserving winner of the Canada Company's Prize; and Truman McEvers obtained the second prize. The first prize, for two bushels of red winter wheat, a remarkably plump and heavy sample, was awarded to J. Sullivan, of Longmoor; J. Richardson, of Pelham, and D. D. Rogers of Pittsburg, obtained the second and third in the same class, exhibiting samples scarcely inferior. There were also beautiful samples of white wheat.

The samples of Fyfe and club spring wheat were also very good. The prize list will furnish the particulars of the successful competitors, and a repetition of the names is unnecessary here. The wheat was quite equal to that exhibited in Toronto last year.

There was also an excellent display of field peas, both of large marrowfat and small field varieties. Some of the samples were perfect.

The barley was much better than might have been expected; bright, of course, in colour, for the harvest weather has been mostly superb, and some of the grain well filled and large. The samples of spring and winter rye were better than an average, consisting of larger, heavier and more uniform grains than is commonly seen.

The oats, too, were not behind in excellence. J. Jack, who gained the first prize, exhibited a most beautiful bag of white oats, which could hardly be surpassed. There was very little competition in field beans, showing that this is not a very favourite crop with farmers in this country. W. Eagleson, T. McEvers and W. Riddell, were almost the only exhibitors.

Buckwheat also was but sparingly represented. The same may be said of millet and Hungarian grass.

On the whole, the display of grain was very fair; that of roots and vegetables small, but of better quality than might have been expected.

Several bales of hops, of very good quality were exhibited in this department, by G. Demerest, of Richmond, James Carliss, of Barnston Joseph Jardine, of Wentworth, George Jardine, of Hamilton, and J. M. Wellington, though the last was not for competition.

Mr. John A. Donaldson of Toronto, exhibited some beautiful specimens of fibre, prepared from Canadian grown flax. The flax was taken to Ireland in a raw state, and there, through the kindness of Mr. Seaton, manufactured at Mountain Mills, and returned. Irish judges pronounce the fibre to be quite as good as any of their own growth.

Implements at the Provincial Exhibition.

THE show of implements, though comprising some of a very useful and important character, and a few of novel invention was, numerically, very far below that of last year in Toronto. Indeed, the ground appropriated to this department of the exhibition presented on Tuesday morning but a bare appearance. A few additions were made in the course of the day, but after all were brought together, the show of implements was very small for a Provincial Exhibition.

Among the most conspicuous objects on this part of the grounds was the steam engine exhibited by C. A. Waterous & Co., of Brantford. This enterprising firm have done much toward supplying the increasing demand in this country for agricultural machinery, and their benefits have not been confined to Canada alone; other Counties have been supplied by their industry. The steam engine exhibited by them last year in Toronto has since been sent out to New Zealand. That exhibited on the Kingston grounds is similar, being of sixteen-horse power, and adapted both as a stationary and portable engine. It was in working order, with a line shaft attached, by which the following machines, which were placed along-side, were set to work during the progress of the exhibition:—A machine for cutting lath bolts from slabs; and adjoining this, another for cutting these into laths. This lath-cutting machine is calculated to cut 15,000 laths in a day. Behind this again was a grain-chopping mill, adapted for comminuting peas, beans, corn, either in the cob or shelled, &c. The patent is Robinson's, the manufacturers are the Messrs. Waterous. Another smaller machine of cheaper construction, was also exhibited within the same enclosure. Much praise is due to these exhibitors for the energy they have displayed, and the trouble and expense which they have incurred in bringing machinery of this kind on the show ground. They were without competitors in this particular class. Within the building the same gentlemen showed a large circular saw, for which they are the agents, manufactured by the American Saw Company, from Emerson's patent. This saw is made at Trenton, in New Jersey, and the peculiarity of its construction consists in the teeth, which are inserted separately into the blade and fixed in place by rivets. They can, of course, be renewed when worn, thus rendering the saw far more durable than those of ordinary construction.

Near the steam engine were a few three-horse machines, among them Abell's horse power threshing machine, which in every respect is a model of beautiful workmanship and excellent machinery. It deservedly took the first prize. One of the advantages of this machine is the provision made for fixing the straw-carrier at any angle with the separator, so as to deliver the straw at the side, if required. Another threshing machine was also exhibited, and obtained a second prize, by Mr. H. A. Massey, of Newcastle. Mr. J. Conolly showed a small three horse power threshing machine, worked on the principle of the incline. The same exhibitor showed a stump extractor, worked by a combination of chain,

cog wheels and lever. It seemed a powerful and yet portable implement.

A cordwood sawing machine, of elegant appearance, was exhibited by E. Leonard, of London, and another, calculated apparently for rougher work, stood near, and was shown at work. The last was manufactured and shown by H. R. Barker, of Fredonia, New York.

Near these, and alone in its glory, was exhibited a machine of great power, for drawing or lifting very heavy weights, such as buildings, wrecks, &c. It is worked by hand, but is capable of exerting immense traction force. The exhibitor was Thos. Davis, of Port-mouth, near Kingston. The machine consists of a very strong chain, furnished with friction rollers, and other main rollers of similar construction, but larger and wedges, which are driven by a powerful screw between the rollers, so as gradually to draw up the chain and whatever is attached to it.

In another part of the grounds was shown a drain tile ditching machine, for making the ditch in which to lay the tiles. This useful machine was exhibited by H. Carter, of Elgin, the inventor and patentee, from Abell's manufactory, at Woodbridge. It might be used without the tiles for constructing an open drain, where a depth of about two feet was sufficient. Mr. Carter also showed an ingenious horse hay fork, constructed on the harpoon principle, far less cumbersome than those that have hitherto been most in use. It looks, at a short distance, like a flat iron bar with two points or teeth, technically called beards, meeting at the bottom. This bar is plunged into the mass of hay to be lifted; by an easy manipulation the bottom teeth are turned up, and a considerable weight of hay can then be raised, and dropped when required, by pulling a catch.

A very similar looking hay fork was shown by another exhibitor, Mr. J. W. Mann, of Woodhouse. This is apparently sharper at the point, and is furnished with but one beard or tooth near the bottom. This tooth is kept in working position by the weight of the bar attached, which works up and down inside a double flat iron band. The load is detached in the usual way, by pulling a catch. It seemed to work very easily, nothing more being apparently required than to plunge the spear-like implement into the hay and haul it up. It was stated that, by either of the foregoing implements, a ton of hay could be unloaded in three lifts. Mr. Mann also stated that his fork could be manufactured at the small cost of \$150 or \$2.

In connection with the drain tile ditching machine, should be mentioned a machine for making drain tiles the only one apparently on exhibition. The inventor is E. Rockey, of Salem, Ontario.

Ploughs of various kinds, though not in great number, were shown. Among others, A. Hubbert, of Prescott, exhibited wooden beam ploughs in three sizes—subsoil plough, a double mould plough, a gang plough and a trench plough. The same exhibitor also showed a single horse cultivator and a potato digger. In some of these ploughs no bolts are used on the surface of the share or mould board, the fastening being altogether at the back. H. Massey, of Newcastle, and Chown & Cunningham, of Kingston, also exhibit ploughs. A potato digger, drawn by two horses, and which appeared calculated to do good work, was shown by Alfred J. Lemon & Co., of Linden.

Several varieties of harrows were on the ground, and among them were some ingenious implements. That shown by Mr. H. Kinney, of Woodstock, was of peculiar construction, and seemed well suited for uneven ground, being so jointed together as to admit of considerable movement in its component parts. Mr. Collard exhibited his two row section harrow, of which an illustration has already appeared in the CANADA FARMER.

There was a small collection of horse hoes and cultivators exhibited by Mr. H. Collard, of Gananoque, Mr. Bradley, of Centerton, Mr. T. Scott, of Newburg, Mr. W. Perin, of Amherst Island, and Mr. E. Rockey, of Salem.

Drills both for sowing small seeds and grains were on the ground, and most of these appeared as if they would work well. Turnip drills on the barrow principle to be propelled by hand, and others of larger dimensions to be drawn by horses, were fairly represented. Most of these had a separate compartment for sowing manure, such as super-phosphate of lime, or ashes, at the same time with the seed. Among the exhibitors in this class were Mr. J. Westlick, of Hope, Mr. E. Rockey, of Salem, Messrs. W. & T. Walker, of Brampton. Mr. E. Rockey also exhibited a liquid manure drill, of which it is desirable that more were in use.

On the same portion of the ground, among the late arrivals, were some very neat-looking and compact cider mills, manufactured and exhibited by H. Sells of Vienna. These mills cut and crush the apples, and completely abstract the juice, and appear to be thoroughly well constructed for easy and efficient

working. Adjoining these machines were a set of excellent straw cutters, exhibited by the Messrs. Maxwell and Whitelaw, of the Paris Foundry. The same manufacturers show a root cutter and a seed drill. The first prizes were awarded for each.

Garden and field rollers, large and small, constructed of wood and iron, formed a conspicuous group among the implements. The exhibitors in this class were S. D. Clarke, of Ernestown, H. Massey, of Newcastle, H. Collard, of Gananoque, and Chown and Cunningham, of Kingston.

J. H. Purdy, of Ernestown, and W. McDonald, exhibited horse hay rakes, apparently well adapted to facilitate hay making.

The most novel implement on the ground was, perhaps, the flax puller exhibited by Oswald & Patterson, of Woodstock. It is difficult to describe this very ingenious machine, without some sort of drawing; but it appears to have proved itself an efficient flax harvester. It has been extensively tried during the last season, and is said to do its work thoroughly, pulling the flax without breaking the fibre or bruising the seed. One driver, and a boy to gather the flax as it is passed from the drum, and throw it aside in bundles, with two others to bind, are all the attendance required; and, with this amount of help, it is said the machine will harvest about three and a half acres per day. This machine is a most important acquisition to the country, and will, no doubt, remove one of the most serious objections against flax growing that has hitherto deterred many from undertaking this branch of agriculture. Immediately below, our readers will find a communication from Mr. Donaldson relative to this new invention.

Our neighbours from the United States compete with us, amongst other things, in the matter of Reapers and Mowers. These were collected together under a shed on another part of the ground, as before stated. The principal exhibitors in this department were Messrs. H. A. Massey, of Newcastle, John Forsyth, of Dumfries, John Herring, of Napanee, and G. F. Herrington, of Valley Falls, New York. The first prize for the best reaper was awarded to Mr. H. A. Massey, of Newcastle, who exhibited Wood's patent reaping machine. The same exhibitor obtained a first prize for the best mowing machine, and the third for the mower and reaper combined. Mr. John Herring obtained the third prize for his mower, and also exhibited a combined mower and reaper, which was a self-raker. To Mr. John Forsyth, of Napanee, was awarded the first prize for a combined mower and reaper. The second prize in the same class was awarded to Mr. G. F. Herrington, of New York. This is also a self-raker. The same maker exhibited and obtained the second prize for a mowing machine, about which there appeared to be a great many conveniences and advantages, especially in the facility with which the sickle can be regulated and elevated, so as to pass over obstacles or work on uneven ground.

Under the same shed were shown some highly decorated spring market waggons, by Mr. T. Scott, of Newburg, Mr. R. S. Clarke, of Ernestown, and Hart & Son, of Picton. G. White, of Kingston, and G. Lindsay, of Gananoque, were the only exhibitors of lumber waggons.

In the same compartment with the dairy implements was a really beautiful display of field and garden tools, comprising hay and potato forks, scythes, hay knives, &c. The material and general finish were most admirable, and prizes to the number of sixteen were awarded to the exhibitors, Whiting & Cowan, of Oshawa.

In another part of the grounds, and not far from the main Exhibition building, there was a small display of gates, and one solitary model of fencing. Several of the gates were deserving of high commendation. The exhibitors were Messrs. Rykert, who showed the Grantham gate, R. Lucas, of Trafalgar, R. Lewis, of Melbourne, and some others. The last-named exhibitor, though he failed to obtain a premium, showed several varieties of gates which seemed extremely convenient, and simple in construction and working. Mr. Stephen Washburn exhibited his patent picket fence, by small models, and showed how easily it could be adapted for a variety of purposes, such as a hay rack, a feeding rack, sheep pen, fruit ladder, and various other uses.

In connection with the department of agricultural machinery, it should be stated that James Brown, of Toronto, showed a model of R. T. Sutton's grain dryer, which would seem to work well.

Flax-Pulling Machine.

Mr. JOHN A. DONALDSON, of Toronto, writes as follows:—

I have just returned after visiting the farm of the Rev. Dr. Freeland, township of Mono, a short distance from the thriving village of Oraugerville, in the

county of Wellington, where I witnessed a flax-pulling machine at work, being drawn by two horses, similar to a reaper or grass mower. This machine will pull from three to four acres per day, and can be worked by two hands, the driver and another man. Boys will answer in both cases. It was doing the work well, not leaving a single stalk behind, either long or short. Like all new discoveries, its construction is very simple, being a cylinder of wood, with a belt which secures the flax and delivers it as fast as one hand can make the beets or small sheaves, the binding and shocking taking the same time as in all ordinary cases.

I have little doubt, now that the idea has been discovered, that great improvements will be made, and I hope next season to see a machine produced on the same principle that will pull double the quantity. However, Dr. Freeland deserves great credit for securing this machine and for the great interest he has shown in promoting the growth of flax in this country. In order to show the farmers in his neighborhood that he meant what he said, he put in no less than fifty acres last spring on his own farm, and a finer crop I have never seen in any part of the Province. A large portion of it will produce from two to three tons to the acre. There is a certainty about this crop which attracts few others if only put in early in the spring. There is sure to be a good return of seed as well as fibre. Another great object is the adding another crop in rotation. Those who think the flax crop exhausting to the land should see Dr. Freeland, who has several acres where flax was grown last year, looking as well as any other part of his crop. Mr. Church, of Caledon, who has lately erected one of the finest scutching mills in the country at the Credit Falls, will also show a second crop on his farm, equal if not better than the first.

While saying a few words on this important subject, I cannot help thinking, from what I have seen lately, that our back townships are best calculated for the growth of this valuable plant; it being less liable to be injured by the frosts, and in no case is it affected by the mildew or weevil. Those who have not given it a trial will be safe in doing so, from the fact that there are properties in the soil, after it has refused wheat, that will produce a good crop of flax. With the new pulling machine, there is no doubt many farmers will give this crop a trial, who would not venture otherwise, and I have no doubt of their success. Samples can be seen at my office, 14 Front Street, from the farm of Dr. Freeland—one four feet long. The market for seed is opening favourably; from \$1.50 to \$1.60 per bushel can be had, of only 56 lbs to the bushel—1 lb less than wheat.

Stock Department.

Show of Stock at the Provincial Exhibition.

HORSES

Of blooded horses there were but two entries, and but one of the animals could be discovered in the stables; "Kenneth," now the property of Mr. Dainty, of Cobourg, was alone in his glory. Of a rich, golden bay colour, and nearly perfect in form, no better specimen of the class could be desired. Though of the mature age of fifteen years, he is as sprightly and active as a deer, exhibiting no signs of advancing age. It is much to be regretted that more attention is not paid by our breeders to this, the highest type of the horse.

AGRICULTURAL HORSES.

Of this class there were by far the largest number of entries. A great proportion of them were large and heavy animals, and entitled quite as much to be classed among the draught as the agricultural horses. There is no doubt but weight is of good value in a horse intended for the plough; but for the general work of Canadian farmers the heavier of the "road and carriage" class will be found more generally useful than those that are styled agricultural horses.

Belonging to this class is the "Canadian Farmer"—a horse owned by Mr. James Anderson, of Ameliasburg, and which deserves special notice. He is a fine animal, of a red sorrel colour, and stands nearly seventeen hands high. He is four years old, and weighs sixteen hundred weight. Mr. H. Cosbrane exhibited a newly imported horse, named "Bounce," and a fine mare, two years old. The latter took the first prize at the Royal Agricultural Society, Bury-St. Edmunds, England, in the present year. They are both fine specimens of their class. "Frontenac," owned by the Agricultural Society of the county of Frontenac, is a fine horse for a three-year old, and stands about seventeen hands high. The "Wm. Wallace," exhibited by Mr. James Morrow, of Tecumseh,

is a large, powerful animal, and well formed. Mr. Robert Ferris, of Richmond Hill, exhibited "Young Robin Hood," which, though not so heavy as some of his competitors, is a noble specimen of the Canadian farm horse. Mr. Lawrence Sinclair, of Rattan, showed a yearling colt of great promise. He is well formed, and large for his age. He stands about sixteen and a half hands high, and weighs about twelve cwt. The "Cumberland," owned by Mr. Thos. Evans, stands well in his class. He took the third prize last year at the Provincial Fair at Toronto. A bay mare, two years old, sired by the "Comet," an immense animal, owned by Mr. John Miller of Pickering, is one of the finest of its class. Though only two years old she is already fully developed. This mare is owned by Mr. Silas Inch, of Oshawa. Mr. James Lowry, of Scarborough, also exhibited a fine mare and colt. Mr. Van Sleik showed a large three-year old, which had few equals on the Exhibition ground. It is untrained yet, though, from its appearance, it should be able to earn its own living without difficulty. Robert Augdon, of Brewers Mills, had a fine three-year old mare on exhibition. She stands fifteen and a half hands high, and shows good breeding. A two year old, owned by Mr. John Dixon, of Etobicoke, deserves particular notice. It is a fine animal, sired by the "Tom Thumb," and took the first prize last year in her class. Mr. J. C. Stark exhibited a bay filly of large proportions, though scarcely equal in strength and symmetry to some of the other competitors in the same class. The "Farmer's Glory" is a fine, large horse, owned by Mr. Peter Pollard, of Clark, Durham. It is an animal of great strength and good action, and of a stock imported from Yorkshire. Perhaps the finest brood mare and colt exhibited in this class were those owned by Mr. Robert Beith, of Darlington

ROAD AND CARRIAGE HORSES.

In this class there were a large number of competitors of various styles and of an excellent grade. Mr. Davis, of Richmond Hill, exhibited "Blackhawk Morgan," who has before figured largely in the prize lists, and was in fine trim. He is sixteen hands high, and in form, temper and action, fully justified the estimation in which he has been held on former occasions. Mr. Davis also showed a matched pair of mares of the same strain; the same that took the first prize last year in Toronto. Lewis Gerald, of Kingston, showed "Hambletonian," from old "Hambletonian," a fine chestnut stallion of medium size and good action; not likely, however, to rival "Dexter" or "General Butler," who have sprang from the same stock. There were also a number of horses from imported "Shales Rattler," all of them fairly entitled to rank as first class light carriage horses. Mr. John Ward, of Napanee, exhibited a three year old colt of this stock, a coal black, with white feet behind, that can hardly be surpassed by any of his age. Mr. Felix Graham, of Thurlow, had an aged stallion of the "Rattler" stock, very perfect in style and action. Mr. T. Dockstader, of Sidney, showed a two year old colt, and Mr. Dennis Hurley, of Tyendinaga, a yearling, which both exhibit in a marked degree the good points of this stock. Mr. P. M. Clark, of Earnestown, a young "Sir Charles," of good appearance, and Messrs. Lake and Fraser, of Fredericksburg, a pair of two year old fillies, broken to harness, and claimed by their owners to be the fastest team of their age in the Province. They are of the Tippoo stock, well known as good roadster horses. Mr. S. Inch and Mr. John Wilson, of Oshawa, each showed a two year old; the former a Kennet colt, and the latter a Blackhawk, both good colts. Mr. Bonner, of Toronto, exhibited a three year old mare, from "Young Toronto Chief," which probably had not her superior on the grounds. Mr. S. R. Miller, of Earnestown, also showed a first-rate mare of the same age, a light bay, of Tippoo descent; and Ebenezer Freits, of Fredericksburg, a fine black two year old filly. "Foxhunter," owned by Mr. J. C. Murray, of Wolf's Island, about completes the lighter class of carriage horses worthy of notice—a game-looking black horse with white stockings.

Among the heavier horses of this class, George Murray, of York Township, exhibited a brown "Coach-boy," who has already appeared in the roll of honour at our Provincial Fairs. "Volunteer Coachman," entered by Mr. Henry Kerby, of Pickering, is another fine specimen of the large coach horse. Mr. Dainty, of Cobourg, exhibited two good mares, with foals, from "Kennett"; Mr. Reuben Spencer, of Kingston Township, an excellent mare with foal; and Mr. James Lowry, a mare and foal in the same class.

The difficulty of judging between heavy coach and light carriage and roadster horses had again to be encountered by the Judges. A separate classification of the two kinds would contribute very materially to lighten the labours of the Judges, and give satisfaction to the exhibitors. In number and in quality, the show of horses of this class was very superior.

HEAVY DRAUGHT.

In this class there was a very marked improvement on previous exhibitions. Several fine imported ani-

mals have this year made their first appearance in Canada. Mr. Simon Beattie, of Markham, showed "Young Conqueror," just arrived, a splendid four year old, the winner of the first prize of the Royal Agricultural Society, England, last year, a black br dark brown horse of immense weight and good action for so heavy a horse. Mr. Beattie had also "Robby Burns," imported this year, a dark bay of great substance, three years old, but rather sluggish in his motions. Mr. Johnathan Porter, of Darlington, exhibited Sir Walter Scott, a dapple brown, three year old Clydesdale, imported. Sir Walter took the first prize last year at Glasgow, as best stallion of any age, and was sired by the Duke of Hamilton's famous "Sir Walter." He weighs about 1,800 pounds, and shows the peculiar beauties of the Clydesdale stock in a high degree.

"London Tom," entered by Mr. Wm. Robinson, of Nottawasaga, has already distinguished himself as the winner of numerous prizes. He was bred by Mr. Wm. Armstrong, of Markham, took the first prize last year at Toronto, is about eighteen hands high, and weighs 1,906 pounds. Mr. John Miller, of Brougham, showed an imported Clydesdale, "Comet," a dapplegrey of great power and weight, which, although like many of this class rather lacking in action, attracts notice by his massive proportions and beautiful color. Mr. James Nimmo exhibited some young Clydesdale stock, but nothing demanding special notice among the many splendid specimens of this class. Mr. Irving, of Montreal, had a mare and foal of the famous "Logan" stock, which do credit to their breeder. Mr. Robert Beith, of Darlington, showed a yearling from imported "Netherby;" and Mr. Alexander Beith, of Clarke, a three year old mare, from "London Tom," that deserves again to stand at the head of her class, as she did at the exhibition in Toronto last year. Mr. Wm. Wheeler, of Scarborough, and Mr. James Pile, of Whitby, each exhibited a good two year old—the former from "Nonpareil," the latter from "Cornet."

CATTLE.

As a general observation in reference to this department, we may state that while as to number it was not equal to some former displays, it was second to none in point of excellence.

SHORT-HORNS.

To these of course must be assigned the position of honor as our leading breed of cattle. There was not, however, the usual preponderance in number as compared with the other classes. The valuable herd of the Hon. D. Christie was among the missing, that gentleman having found the temptation to show them at the New York State Fair irresistible, from the nearness of its place of exhibition, Buffalo, to his residence. They will, without doubt, carry all before them, as they have been wont to do on their home-field of competition. Prominent among noted breeders of Durham cattle who had stock at the Provincial Show this year, we may first mention Mr. T. W. Stone, of Guelph. His three-year old red bull, "Grand Duke of Moreton," is a choice animal, with fine shoulders and fore-arms, very silky touch, and good points generally. This bull has been chiefly used as a breeder at Moreton Lodge Farm the present summer. "Isabella IV," is a valuable aged cow, out of which her present owner has had five choice calves. One of her progeny, "Isabella XII," a promising two-year old, was on the ground. "Isabella IV," and "Cambridge VI," are beautiful young heifers. "Knight of Canada," is a very fine red yearling bull. There were also two very nice bull calves; and "Miss Margaret IV," a handsome roan calf. Mr. John Miller, of Brougham, township of Pickering, had a nice lot of Durhams and Durham grades. "Prince Bourbon" is an aged roan bull, imported from Kentucky, which has some good points, but is of rather heavy build and carriage. "Bell, Duke of Oxford," is a good, useful bull, and has had hard service the present season, so that he looks rather the worse for wear. There is no exhibition "get up" about him; but the work he has done among the Pickering herds, will tell another day in the improvement that will make itself visible among the native cattle. A three year old Durham cow, a snow-white yearling heifer, a red one of the same age, and a three-months-old calf, are all animals of much merit. But, perhaps, the most noticeable among the cattle shown by Mr. J. Miller, were two roan Durham grade heifers, yearling and two-year old, very beautiful creatures. One or other of them has taken the Fergus cup: they both well deserve it. Mr. M. H. Cochrane, of Montreal, is determined to distinguish himself among short-horn breeders, and his herd, though in its infancy, was quite a conspicuous feature in the present show. "Miss Margaret II," and "Snowdrop," a couple of two year olds bought by him at the last Provincial Exhibition, fully maintained the reputation then acquired by them, and promise to make themselves and their owner a name in short-horn annals. "Belle of the West" is a good three year old,

and "Chloe" a valuable aged cow. "Grand Trunk" bull calf, so named because born on the Grand Trunk railway, while his mother was on her way from Kentucky, is perhaps only notable because of the oddity of his birthplace.

Mr. Cochrane exhibited his splendid cow "Rose-lale," just imported, and purchased for him by Mr. Simon Beatty for 240 guineas. The following condensed description of her performances will show what an acquisition she is to the Durham stock of Canada. "Rose-lale" is a roan, was calved Feb. 13, 1861, got by "Valasco" (15,413 H.B.):— She was bred by Lady Pigot, and has won the following prizes and commendations:—In 1861, the first prize at Northampton; in 1862 a commendation at the Royal Agricultural Society's Show at Battersea; first prize at the Durham County Show; first at the North Lincolnshire; a high commendation at the Yorkshire; first prize at Skipton; first at Halifax and Thorley's cup prize for the best animal in the yard; first at Preston and the challenge cup and Guild Mayor's cup, first prize and the challenge cup at Keighley; first at Warrington; first prize and the 100 guinea challenge cup at Ulverstone; in 1863 first prize at the Worcester Royal, first and the 100 guinea challenge cup at the Durham County, first at the North Lincolnshire, and first at the Yorkshire Show, and several subsequent prizes at Lancaster, Skipton, Keighley, and other places. From this it will be seen "Rose-lale's" performances in the show ring as a prize animal have been unequalled in England or any other country. During the short period of three years she gained upwards of two thousand five hundred dollars in prizes, besides several valuable cups; and after passing into the hands of the Duke of Montrose, was withdrawn from public competition, being a regular breeder. Mr. Cochrane has also imported a bull, six months old, of the best Booth stock, red and white, got by "Baron Booth," but not now on exhibition. "Rose-lale" has taken the first prize in her class, and "Chloe," also owned by Mr. Cochrane, the second prize.

Mr. Snell had on exhibition a very fine two-year old bull. This animal has deservedly taken the first prize in his class, and is reported to have also won the sweepstakes. Mr. Snell also exhibited a very nice two-year old heifer, got by "Baron Solway," out of "Mayflower"; a yearling bull of much promise; two three-year old heifers, and three bull calves, all animals of much merit. Mr. J. Ashworth, of Belmont, had some Durham stock, among which may be mentioned a fine aged bull and a good three-year old cow. Messrs. Stock, of Flamborough West, Laurie, of Newcastle, Gardiner, of Toronto Township, Thompson and McKenzie, of Whitby, Bellwood, of Newcastle, and Adolphe St. Maurice, of La Prairie, also had animals in the Short-Horn class.

HEREFORDS.

As usual, Mr. Stone was almost alone in his glory as an exhibitor of this breed of cattle. Canadians are slow to appreciate their merits, but they will assuredly work their way to public favor. In the belief of this, Mr. Stone perseveringly and carefully increases his herd, and we question if, in their native haunts, the specimens on exhibition could be beaten. "Commodore," four years old, and "Guelph," five years old, are magnificent bulls. "Vesta III," three years old and "Bonny Lass," seven years old, "Gentle III," four years old, and "Graceful II," three years old, are beautiful cows. "Bonny Lass" is as broad across the hips as any short-horn cow we ever saw, and little narrower in front than the best specimens of the favorite breed. The Herefords are hardy, easily kept, fine grazing cattle, and worthy of wider patronage by the farmers and stock-breeders of this country. Besides the animals just specified, Mr. Stone had a number of yearlings and calves of great promise, most of which we may mention are to be offered at auction, on his farm, Oct. 16. Mr. John L. Gibbs had a very fine three year old Hereford bull, "Canadian Chief," bred by Mr. Stone, which deservedly took the first prize in his class. Mr. Cochrane had also a couple of heifers, "Baroness" and "Hebe II," bred by Mr. Stone, that are highly deserving and promising.

DEVONS.

Mr. H. H. Spencer, of Brooklin, Messrs. Spooner, of Kingston, Perdue, of Campbell's Cross, Messrs. Courtice, of Darlington, Mann, of Bowmanville, and Choate, of Hope, exhibited some very fine Devons, almost rivaling the shorthorns in bulk, and showing well-nigh as great a tendency to lay on fat as their celebrated rivals. This is a beautiful breed of cattle, and is well worthy of propagation on many accounts, chiefly because of the excellent working oxen it produces.

AYRSHIRES.

This breed was better represented than we ever recollect to have noticed at any previous Provincial Exhibition. The aged bull class had five entries, and

the three-year old bull class three, most of them very fine animals. Some of them, however, seem to be indebted to an infusion of Durham blood for size, and we imagine that this fact escaped the notice of the judges, for size rather than Ayrshire points appears to have dictated the award in more than one instance. The aged bulls of Mr. Thomas Irving, of Montreal and Mr. George Morton, of South Crosby, and the three year olds of Sir W. Logan, and the Williamsburg Agricultural Society, are especially worthy of notice. Mr. W. Wheeler, of Scarborough, showed fifteen head of Ayrshires; Sir W. Logan, ten; Mr. Thomas Irving, of Montreal, ten; and Mr. George Morton, of South Crosby, twenty. Messrs. Rodden, of Plantagenet, Ryan, of Pittsburg, Thompson, of Dundas, C. S. Fox, of Manchester, and Hon. G. Crawford, of Brockville, also showed Ayrshires, and, as a whole, the master for this class was a numerous one, as well as of high excellence.

GALLOWAYS.

Mr. William Hood, of Guelph, Mr. Thos. McCrae, also of Guelph, and Colonel R. L. Denison, of Toronto, were the principal exhibitors in this class. Beside them, Mr. David Youill, of the township of Stanley, showed a good aged bull, appropriately named "Fred Douglas"; and Mr. Arthur McNeil, of Vaughan, had a nice three year old bull. The Guelph men nearly swept the prize list—Mr. Hood taking six first prizes and two second in this class, and Mr. McCrae one first, three seconds, and two thirds. Mr. McCrae has only quite recently entered the lists as a breeder of Galloways, and the success he has already achieved augurs well for his future exploits in this line.

ANGUS CATTLE.

On our first tour of inspection among the stock, only one exhibitor appeared to be in the field in this class; viz. Mr. F. Van De Bogart, of Napanee. Subsequently, however, we found other competitors, viz.—Mr. Matthews, of Kingston, and Mr. Nimmo, of Camden. Among the three gentlemen just named, the prizes were distributed. The Angus cattle are near relatives of the Galloways, closely resembling them in general appearance and leading characteristics.

GRADES.

Some very fine animals were shown in this class, giving ocular demonstration of the improvement that can be effected in our native stock by judicious crossing. The grades were chiefly short-horns, and some of the higher ones are so like the pure bred animals that it would puzzle any but an experienced connoisseur to detect the presence of common blood in them.

SHEEP.

There was unquestionably a very fine display in this department, and we hear of no complaint this year as to improper shearing. Either the sharp lesson administered last year has had the desired effect, or there is less stringency in enforcing the rule at this time. We are inclined to think, however, that there has been general regard paid to the just rule of the society on this subject, and that the sheep have been fairly and duly shorn the present year. All the classes, not excepting the Merinoes, are well filled. The latter were in unusual force, and there were better specimens than we ever remember to have seen at a Canadian Show before. While the Americans are giving more attention to long-woolled sheep, it would appear as if at least some of our sheep men were beginning to take to the fine-woolled breeds. This is as it should be. We believe that a mixed and miscellaneous system of sheep husbandry will best meet the wants of our woollen manufacturers, and be most to the interest of the farming community. The well-known names of our leading flock-masters, Messrs. Stone, Miller, Snell, &c., figure as conspicuously as ever on the prize list, and we must this year inscribe on the roll of honor the name of Mr. M. H. Cochrane, of Compton, P. Q., who seems determined to acquire fame as a breeder of sheep as well, as cattle. This gentleman has imported the present year no fewer than 69 specimens of various breeds, chiefly Cotswolds, Leicesters, and Lincolns. These purchases have been personally made by Mr. Simon Beatty, who is now associated with Mr. Cochrane as the presiding genius of his stock department. Only a part of these newly-imported animals were on the ground. Among them we may notice three imported yearling Cotswold rams and five ewes, some of which were first prize-takers at the last Bath and West of England show; one Leicester ram, a yearling, which took two first prizes and a silver cup at recent English shows; also, a two year old ram and two yearling ewes of this breed; and, finally, two fine Lincoln rams, a yearling and a two year old, and two ewes. These animals and their progeny will, if we are not mistaken, win distinction wherever shown in Provincial Exhibitions. Mr. Stone was, as usual, in full

force with specimens of the Cotswold and Southdown breeds. Mr. Snell had a number of fine animals, among them a fat Cotswold ram, weighing 450 lbs., a small moving mountain of mutton. Messrs. J. and George Miller had several pens, but did not exhibit so many as usual, in consequence of Mr. Geo. Miller's absence with a considerable stock of sheep at the Michigan and Ohio State Fairs. Messrs. Geo. Miller, of Markham, H. H. Spencer, of Whitby, and T. Nickerson, of Pickering, were the chief exhibitors of Shropshire and Hampshire Downs. "Spanish, French, and Saxon Merinoes," to use the designation of the class in the prize list, were shown by Foster, of Whitby, Van Bogart, of Napanee. Young and Rymal, of Barton, and the specimens were, as already remarked, better than usual. A few fat sheep were exhibited by Messrs. Spooner, of Kingston, Miller, of Pickering, Snell, of Edmonton, and Russell, of Markham. It was extremely difficult to get any information about the sheep and other animals on exhibition for want of the tickets being nailed on the pens, or the owners being at hand to answer questions. We have an impression that a good many sheep that were on the ground are getting, like the telegrams during the American war, "considerably mixed" up. Some breeders are crossing Cotswolds and Leicesters to such an extent that it is difficult to tell which is which. Cropped foretops and shaven faces were observable among the Leicesters, and scarcity of facial wool among the Cotswolds. One exhibitor was frank enough to acknowledge, after the judges had made the award and affixed the coveted ticket, that his animal had been sired by a Cotswold ram! He should have made this avowal while the judges were comparing notes. Will a decision stand in the face of such a confession? No objection can, of course, be made to crosses of this or that description; but the fruits of them should be shown for what they are, viz:—hybrids, and not pure-bred specimens. A great difference was also observable in the "get up" of the sheep. Some were in a state of nature, their wool rough and unkempt, while others were very tastefully trimmed, combed, and decked out by their skillful owners. How far this difference in exterior appearance may affect the decisions of the judges, dependent knoweth and therefore sayeth not. A brisk business appears to have been going on among the sheep men, and we heard of several sales being effected at good, if not high, prices.

FIGS.

This department was not up to the usual mark, and there was more than ordinary confusion in the arrangement of the classes. Among the smaller specimens, Mr. James Maine, of Trafalgar, took rank as the leading exhibitor. His Suffolks were very fine, and "got up" in the very best style, with scrubbing brush and fine tooth comb, so that they constituted the aristocracy of the swine department. R. Gibson, of Kingston, J. Crumb, of Darlington; John Cumming, of Londonborough; D. Featherston, Trafalgar, and others, were also exhibitors of small breed pigs. C. A. Jordison, of Belleville, was, as usual, distinguished among the Yorkshires, though he had not so many specimens as on some previous occasions. A mammoth boar was shown among the Yorkshires, by Robert Clark, of Tyendinaga. Other large breed hogs were shown by Hon. George Crawford, of Brockville, John Corrie, of Dereham; George Hunter, of Kingston; R. Spooner, of Kingston; Joseph Featherston, of Toronto Township, John Ryan, of Pittsburg; and last, though certainly not least, by Mr. M. H. Cochran, of Compton, P. Q., who showed some very nice, large Berkshires, imported this year along with the cattle and sheep already noticed as having been purchased for him in Great Britain by Mr. Simon Beatty.

IMPORTED STALLION.—Messrs. Duff and McCallum, of Esquesing, have imported from England a fine Stallion, which promises to be of much service to Canada. Mr. Kirby thus speaks of this new acquisition: "Agricola is rising four years old, stands 16 hands and a-half high, is a beautiful dark-brown, with four black legs, free from all natural blemishes, and with very superior action. He was bred by James Fawcett, Esq., of Scalsby Castle, N. Carlisle, and got by Dusty Miller, dam by Lofty, grand dam by North Britain, great grand dam General Benefit. Dusty Miller was sired by that noted horse British Farmer, whose stock is noted for gaining prizes both at the Highland Society and other local shows. Dusty Miller, the sire of Agricola, was allowed, by competent and impartial judges, to be one of the best Agricultural Stallions in Great Britain." Coming with such high recommendations, this young horse will, we expect, reward the enterprise of his owners, and produce a good effect on the breed of horses in this country.

Straw for Shelter.

The importance of shelter for stock in winter has been frequently discussed and strongly enforced in this journal; and it is to be presumed that every farmer will admit the principle; but some plead, in extenuation of their negligence in this matter, the impossibility, on account of their limited means, of

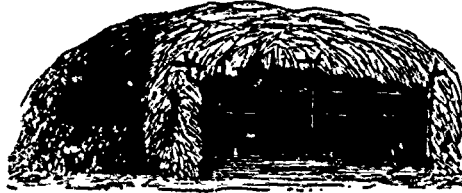


FIG. 1.

putting up sufficient shelter for the comfort of animals under their charge. But this is indeed a very poor excuse; for where other materials are wanting, or where money and labor are scarce, most comfortable housing can be procured for stock of all kinds by an appropriate use of straw. In countries where



FIG. 2.

timber is scarce, as on the prairies of Illinois, we have frequently seen the most warm and thoroughly efficient shelter secured by straw "fixings" even of the rudest kind. In these regions this is, indeed, the only abundant material for the purpose. Shelters for all domestic animals are constructed of it. A few

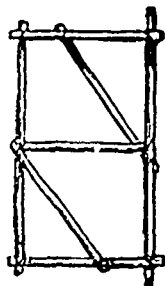


FIG. 3.



FIG. 4.

poles form a roof support, and the straw is piled about and upon them. On the sides of the shed the straw is either simply a trodden down heap, trimmed with a hay-knife on the inside, or it is piled against rails. These are very warm sheds, (see fig. 1)—but



FIG. 5.

they wet through, leak, and the straw rots and must be removed after a short time.

Instead of these rude and primitive structures, much better sheds might be built, using the same materials.

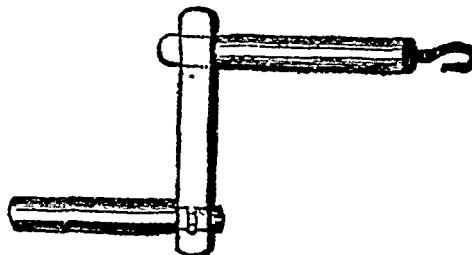


FIG. 6.

Much of the tall stubble, cut close to the ground, is long enough to make most excellent and durable thatch, if well put on. A few bundles of wheat might be threshed out by hand, and the straw saved, or even the machine-threshed straw might be used and answer tolerably well, if a sharp pitch be given to the roof. Thatching is understood by many immigrants, and the principles upon which good work depends are so simple, that where beauty is not demanded, any handy man will make a tight roof after a little experience. There are several methods of using straw to form the sides or walls of these stables. A convenient way is to set upright poles about eight inches apart, and draw wisps of straw round each, so that both ends of each wisp shall be outside. It is best to lay these in horizontal courses and beat down each course as it is laid, keeping it uniform and tight. As the filling in with straw progresses, there may be a split pole woven in once in three feet or so, to hold the uprights in place. The straw is finally to be raked down on the outside so as to shed rain well. This makes a tight, warm and lasting wall. The inner side is quite even, and it may be sprinkled with mud if there is danger of the animals pulling out the straw to eat. (See fig. 2.)

The accompanying illustrations and the directions for construction are taken from the *American Agriculturist*, to which able journal we are also indebted for the following account of other uses of straw in the same connection. We would here, in passing, urge on all parties the importance of not deferring the necessary work of providing shelter until the severe weather has set in, and enforced the leisure to devote to the matter. A merciful farmer, or even one who has a wise regard for his own pecuniary interests, will make the opportunity, and secure the time while the weather is yet mild and favorable, so that, when winter commences, his stock will at once derive the protection and comfort they need, without having been previously exposed to, perhaps, some of the severest cold of the whole season.

STRAW DOORS AND SHUTTERS.

It is a great convenience, where lumber is scarce, to be able to make expeditiously a good door or shutter of any kind. Constructed of straw a door may be strong, light and tight. Tie, or wire together, a frame of round sticks—braced or stayed by cross-pieces to give requisite strength. (Fig. 3.) This frame should fit loosely in the window or door-place, and one of the upright pieces should be strong enough to hang the door by. Then wind a straw-rope, of one and a half to two inches in diameter, around the longest way, so as to cover the frame. Next, weave a tighter round straw-rope, back and forth, plaiting the whole in a single mat. (Fig. 4.) The strands on each side of the frame may be plaited separately, forming thus a double thickness of the straw mat. We have seen affairs made in this way by the soldiers, and stuffed with straw as the weaving progressed, and when done they made very good beds.

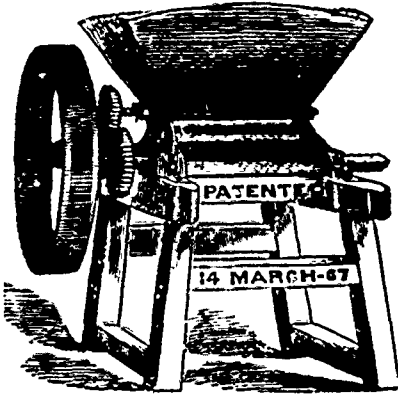
Straw-rope is made by twisting damp straw. Sprinkle a heap of straw the night before. All farmers should possess a set of centre-bits and stock. Take a large centre-bit and attach a stout wire hook to it and place it in the bit-stock. Where the bit-stock is wanting, contrive some substitute. Two persons are required—one twists a loop of straw into the hook, (fig 5,) and walks backward, turning from left to right; the other remains at the straw heap, and feeds fresh straw to the lengthening rope. A sufficient length being attained, the rope is fastened upon a fence or between poles or trees until dry, when it will not untwist.

In a subsequent number of the same journal a Scotch correspondent sent a drawing of a simple contrivance for twisting straw, in common use both in Scotland and England. The last illustration, Fig. 6, sufficiently explains this home-made implement, which almost any farmer's boy will be able to construct.

Summers' Patent Grain-Chopper.

Mr. SUMMERS, of Woodbridge, has invented and patented a machine, which we think will be found to effect a great economy in feeding stock. It is a simple and efficient apparatus for chopping grain, and bringing it into a condition more easily digestible, and more nutritious than whole or unchopped grain.

The accompanying illustration will give some idea of the construction of the mill. The grain is fed into a hopper of the usual form, and made to pass between two cast-iron or steel rollers, the surfaces of



which are roughened by oblique furrows and ridges. It comes out in the condition resembling very coarsely ground coffee, and a little finer than the ordinary samples of chopped peas. We strongly recommend the use of this kind of food, as being more wholesome to the animals, and more economical to the owner than the ordinary method of feeding stock. For price and other particulars the reader is referred to Mr. Summers' advertisement in the present issue.

How to Stop a Runaway Horse when Riding Horseback.

A CORRESPONDENT of the *German Town Telegraph* says:—The following is a certain and infallible mode of effectually preventing any horse from running away with his rider, even if he takes the bit between his teeth, it matters whether the rider be a child, lady, boy or man. I have tried it and proved it, and have taught it to a large number of friends these forty years. It is simply this.—When your horse attempts to run away with you, or is going faster than you wish and you cannot stop him by pulling the reins, you can most certainly turn him round by grasping both reins in one hand and drawing them towards you until you have shortened them to the withers of your horse, then press them down firmly on the withers and hold them fast there; then with the other hand reach forward and take hold of one rein (on the same side) and draw it gently outward and towards you; this will force the head of the horse to that side and tangle his feet, to prevent which and save himself from tripping, he will turn to the side on which you are pulling the one rein, and by continuing the pulling of the rein outwards he must and will turn in a circle, without any forward motion. As long as you hold the reins down on his withers and pull as above stated on one rein, you can keep him turning round and round, much to his astonishment. Under this management he cannot, from the tangling of his fore feet, go one step forward, and of course cannot run away. He is effectually stopped. One thing must be attended to, which is, that when the horse is under full headway the single rein must be pulled very cautiously at first and slowly, and not suddenly and too forcibly, or the horse and most probably the rider will be thrown down, by the sudden tangling of the horse's fore feet.

I have thrown horses, fortunately without hurting myself, by pulling the one rein too suddenly and forcibly after the horse had got under too great headway. After a horse has been subjected to this mode of treatment for a short time, there is no danger of his running away, for the moment he finds his rider drawing up the reins and pressing on his withers he knows that the next thing will be, the pulling of one rein and his being compelled either to be thrown down or be turned round. With a snaffle bit and spurs, any one who can ride can in this way manage any runaway or tracous horse. I never knew it to fail.

The Dairy.

Dairy Products and Implements at the Exhibition.

From the extraordinary progress and development of the cheese factory system which have marked the past year, there was every reason to expect that this department of the Exhibition would be well filled. There was certainly an excellent and highly interesting display; but there were fewer cheese factories and private dairies represented than there should have been, if Canada is to be regarded as especially a dairy country. The collection of products, &c., were, however, considerably in advance of any former year.

To begin with the machines and implements: A. Pedlar, of Oshawa, obtained the first prize for a most beautifully got-up cheese vat. Not only was it well finished, but well constructed of the best materials. Messrs. Fellow & Walton, of Oshawa, obtained the second prize for their cheese vat, and also showed some well made cheese hoops, besides a new milk can of large size, for carrying milk to factories. It is furnished with a sort of moveable lid, closely fitting the inside, but moving freely up and down, and calculated to prevent the contents from being too much agitated or exposed. It is strongly made, and seems just the thing for the purpose.

The American cow milk was exhibited by Mr. Pedlar. W. J. White & Co., 90 King Street, Toronto, are the manufacturers' sole agents for Canada.

L. F. Bungay, of Norwich, exhibits a cheese vat of smaller capacity than the others. Another meritorious cheese vat is exhibited by J. Turner & Bros., of Ingersoll. Their vat did not obtain a prize this year but secured that distinction last year in Toronto, and also at the Ingersoll and North Oxford Fall Show, and at the South Riding Fair at Norwich. The makers claim for it peculiar facilities in regulating the temperature, and the substitution of copper or brass in place of iron in certain portions is considered an advantage, rendering them more easily repaired or replaced when required.

J. B. Clench, of Cobourg, exhibits a cheese press on the lever principle; but the neatest and most efficient presses were those of Turner & Brother, Ingersoll, for which they deservedly obtained the first prize. Cheese boxes were shown by E. Edwards, of Brighton. There were a few churns: that of C. Lewis, of Telford, obtaining the first prize. It is a barrel and dasher churn—power and an additional rotary motion being obtained by an ingenious arrangement of wheel and bar.

This comprised the principal portion of the implements exhibited. There was a goodly display of, apparently, well-made factory cheeses. The judges alone were the privileged tasters, and to their award, as given in the prize list, we must refer for the comparative merits of the different makers.

Butter, packed in white oak tubs, and also in "corks," was exhibited in pretty fair proportion, and, in some instances, of very good quality.

Outside the building in which these various dairy products were exhibited, and occupying a shed to itself, Mr. Harris's mammoth cheese was again the object of much curiosity, and drew together large crowds of admiring spectators. This marvel of skill, unrivalled in its department, is now too famous to need any fresh description. It is understood that it will be exhibited in New York, and afterwards be shipped to England. It has already passed through many perils in its various journeys, and the successful transport of so large a cheese is not the least of the triumphs of which the manufacturers may be justly proud. It has stood the test of age most satisfactorily, and appears to possess all the indications of a thoroughly well-made cheese.

LACK OF COLOUR IN CANADIAN CHEESE.—Our attention has been called to the fact that our dairymen do not colour their cheese highly enough to satisfy the fastidious taste of the English market. Several English shippers who have visited Canadian cheese factories lately, make this complaint respecting our cheese. Among these we may mention the names of Messrs. Webb, C. Taylor, C. D. Faulkner and X. A. Willard, all competent judges and high authorities in dairy matters. This is a defect easily corrected, and a word to the wise will, doubtless, be enough.

Poultry Yard.

Poultry at the Provincial Exhibition.

THIS department of the Exhibition was very deficient—a circumstance the more to be regretted in view of the efforts which have been recently made by the Poultry Association to stimulate improvement and emulation in the breeding of domestic fowls. Perhaps however exhibitors prefer sending their birds to the shows of the Poultry Association, the accommodation and care provided being far superior to what can reasonably be expected at a Provincial Exhibition. Some valuable birds suffered much from damp and cold last year, and their owners may reasonably be loth to subject them to a repetition of such exposure, when they can send them twice a year to an exhibition exclusively for poultry, at which they will be housed and all their wants thoroughly supplied. When we state that our noted London fowl fanciers, Messrs. Peters, Bogue and Lamb, sent nothing to Kingston, it will readily be seen that the poultry department must have lacked some of its most attractive features. Mr. G. Z. Rykert, of St. Catharines, was almost the only exhibitor of any note in this department west of Toronto; and even he had only brought a limited collection, compared with what he might have done. But while, as a whole, the display of poultry must be set down as very defective, some exceptions may be made in favour of certain classes. The Grey Dorkings, for example, were well represented, and some really fine specimens were shown by Messrs. Rykert, of St. Catharines; Irving, of Rockfield; Livingston and Seobell, of Kingston; and Col. R. L. Denison, of Toronto.

We saw no White Dorkings on the ground. The Black Spanish is another class that deserves honourable mention. A pair shown by Mr. Thomas Irving, of Rockfield, were really splendid birds, and would be hard to beat anywhere. Mr. M. Porter, of Rowmanville, had a large collection of this breed, of various ages, to the number of 45 in all, some of them scarcely inferior to those just noticed. Unfortunately, they did not arrive on the ground until after the poultry judges had finished their work and left for their homes. This was owing to the car in which they were shipped being shunted off by mistake, and left for twenty-four hours at Belleville. Some of Mr. Porter's chicks of this year are very fine. He keeps only the Black Spanish variety, and appears to be a skilful and careful breeder. A few good game fowls, chiefly black-breasted reds, and blacks, were shown by Messrs. Daly, Sewell and Law, of Kingston. Special mention must also be made of some importations of French fowls, by Dr. Leitchfield, of Kingston, which formed quite a striking and attractive feature in the otherwise comparatively meagre show. They consisted of the La Fleche, Houdan, and Creve Cœur varieties, one pair of each. Judging by the engraved representations of these breeds, given in the poultry books, we should take these birds to be excellent specimens. They cost their owner \$30 per pair, set down in Kingston. Mr. Rykert had a good pair of silver-pencilled Hamburgs, some fine Hamburg chicks, a pair of Brahma chicks, quite above mediocrity, and some beautiful Sebright Bantams.

Some ruffled fowls were exhibited by Mr. D. P. W. Day, of Kingston, but we cannot pronounce on their quality. Several fine pairs of Bremen geese were shown by Messrs. Cullis, of Hamilton Twp., White, of Kingston, and Rykert, of St. Catharines. Mr. Cullis had also a large and handsome pair of Toulouse or coloured geese; Aylesbury ducks, of middling quality, were shown by Messrs. Richardson and Gibson, of Kingston. If the London trio had brought Aylesburies, these would have been "nowhere" in the competition. A solitary pair of Muscovy Ducks, of fair quality, were shown by Mr. A. J. Scott, of Kingston, and a beautiful trio of black, or East Indian ducks, by Col. R. L. Denison, of Toronto. Some good turkeys were exhibited by Messrs. Wartman and Darand of Kingston. The rest of the poultry show was a dead failure. Several Poland classes were ridiculously burlesqued, the only pair at all passable being the white-crested blacks, owned by Mr. M. B. White, of Kingston. Anything with a top-knot, of

whatever size or colour, is a Poland fit for exhibition, with some people, apparently. Some specimens of top-knotted fowls were the most wretched mongrels that can well be imagined. The Brahmas and Cochins were villainously caricatured by two pairs of old birds, one of each breed, so called; and by two pairs of white chicks, whose only affinity to Cochins consists in dim traces of feathering down the legs. The judges, by a reprehensible stretch of benevolence, gave prizes to these miserable creatures, when they ought to have labelled them "execrable." We advise their owners to wring their necks forthwith; or, if they cannot find it in their hearts to do that, to take care they never show face at an Exhibition again. Some nice pigeons—carriers, pouters, tumblers, jacobins, barbs and trumpeters, were shown by Messrs. Robertson, Cliff, and Carson, of Kingston; and some half lop-eared rabbits by Messrs. Briggs and Henderson, of Kingston.

Canadian Natural History.

Natural History Department of the Exhibition.

CANADIAN Natural History has been generally very poorly represented at the Provincial Exhibition, and the show of the present year was no exception in this respect. We hope to see a growing interest in this most pleasing study, which farmers have special facilities for pursuing, which would afford them, if they once entered into the spirit of the pursuit, a rich fund of untiring delight, and would deter many young people from seeking relaxation in grosser and less healthful recreations.

The exhibition at Kingston had only a few entries in this department. Mr. N. Leonard, of Kingston, was an exhibitor in this class, with a neat case of stuffed birds. The collection embraced varieties from all countries, and was very fine.

B. White was also an exhibitor in native stuffed birds, and Mr. Bayns, of the same city, had another lot of the same kind, very neatly arranged and classified with technical names. Mrs. Craig was also an exhibitor in the natural history class, showing a fine stuffed beaver, very much admired. Mr. Thomas Wilson entered among those a case of native birds, a very nice lot, displaying taste in arrangement, as well as correctness in the taxidermist's art.

The Apiary.

Bee-hives and Honey at the Recent Exhibition.

THE exhibition about the usual competition in this department. G. Bennet, of Cobourg, exhibited a hive in the Agricultural Hall, made on the Langstroth principle, though Mr. Bennet claims to have effected some improvement upon the original idea he has adopted. Directly in front of the main entrance to the Crystal Palace, so as to be the observed of all observers, Messrs. Henry, of Oshawa, and Thomas, from Brooklin, located themselves, and illustrated the merits of their hives, by showing the live bees occupying and working in them. Mr. A. N. Henry exhibited hives on the moveable comb principle, and, in fact, after the advance made of late years in the science of bee-keeping, it is of little use to exhibit any hive to intelligent apiarians unless it be constructed with moveable frames. The chief peculiarity of Mr. Henry's hive consists of an inner lining of straw, which, he maintains, renders the hive warmer as a winter abode for bees, and also absorbs the moisture that collects within it. He has also, in connection with his hive, a mat made of flags to put over the bees in winter, which answers the same purpose as filling the cap or cover with clean straw. Mr. Henry also exhibited a stock of Italian bees and an observing hive containing several queen cells, which he showed to the crowd and explained to the curious and observant among them. He obtained a

second prize for his hive. Not far distant, Mr. J. H. Thomas, of Brooklin, was located with his bee palace, bee hives, and stocks of Italian bees, making altogether quite an imposing appearance. The Thomas hive is so well known to our readers that it needs no minute description; suffice it to say that it comprises all the advantages possessed by any other moveable frame hive, while it has some valuable features peculiar to itself, and for which its proprietor has obtained patents, even in the United States, over all other hives of the kind. Mr. Thomas exhibited the advantages of his hive, and his method of managing bees, taming them by smoke, and then removing the cards of comb, and handling the bees in a very scientific and masterly manner. During the whole day large crowds were gathered here, listening to the information given by himself and brother concerning the nature and habits of the bee. He also exhibited a very fine stock of Italians, supposed to contain 35,000 bees, and weighing over 100 lbs. This stock, in a beautifully ornamented and double-boarded hive, was entered as an extra, and was recommended by the judges as worthy of a first prize. He also showed in a glass hive, containing a single frame, one of the brightest colored Italian Queens we have ever seen. As heretofore, Mr. Thomas was awarded a first prize for his hives which really seem to comprise all the conveniences the most fastidious stock of bees or apiarian could desire.

There was a fine display of honey, both in the comb and strained. The judges could not resist the temptation of opening the boxes and tasting their luscious contents, a piece of policy which the exhibitors did not admire, as it spoiled the tasteful appearance of the boxes and introduced a new principle of judging, viz., by taste rather than appearance. This course is also objected to by them because it prevents the same boxes being exhibited at other fairs the present season. If honey in the comb is to be judged by tasting, notice to that effect should be given, so that exhibitors may prepare boxes that admit of access to their contents without marring the whole. There were six entries of honey in the comb, and seven of strained honey. The first prize for honey in the comb was awarded to C. Gardine, of Elizabethtown. This prize must have been given for richness of flavour, for in appearance it was the darkest and evidently the oldest in the lot. The second prize was awarded to Mr. J. H. Thomas, of Brooklin; the third, to Mr. G. Bennet, of Cobourg; and the fourth to Mr. H. M. Thomas, of Brooklin. For strained honey the first prize was awarded to Mr. J. H. Thomas, the second to Mr. C. Gardine, the third to Mr. G. Bennet, and the fourth to Mr. H. M. Thomas.

Entomology.

A Plant Growing out of an Insect.

MR. GILBERT, of Tibton, Cedar Co., Iowa, sends me a specimen of the common "White Grub," or larva of the May-bug, (*Leucosterna quercina*), with a root over an inch long, and also a short sprout, growing out of the two corners of its mouth in the place where the lower pair of jaws or "maxillæ" ought to be. So firmly is the plant imbedded in the mouth, that it could not be detached by any reasonable force after the plant had been well soaked in hot water. It is said to have been "found by Mr. Paulding in wet soil, about 12 inches below the surface, and when found the shoot was of a light green color and thrifty."

But the most remarkable thing is that, as Mr. Gilbert informs me, "there were large numbers of such specimens turned up by the plough, and the root came from the worm in exactly the same part of the body in all; in some there was a shoot starting as well as a root." "Mr. Paulding," it is further remarked, "has planted out some of them to see what they will result in."

If only a single such specimen as the above had been met with, we might account for it by supposing that the larva had accidentally died with the undecayed seed of some plant in its mouth, and that this seed thereupon vegetated and grew, using the body of the larva as manure to aid it in its growth. But how can we account for the "large numbers" of these specimens found in one place, at one time, and by one man? I can only explain these singular circumstances by supposing that some particular kind of seed is poisonous to this larva, although the instincts of the larva do not prompt it to reject such seed as food. Hence it is to be hoped that Mr. Paulding's experiments will be continued, until he clearly ascertains what plant is produced from this vegetative larva. Possibly we might turn such knowledge to practical account, by sowing this particular kind of seed in places infested by the White Grub,

and especially where, as with young trees in nurseries, we cannot conveniently reach our enemy with the plough, the hoe or the spade.—*Practical Entomologist*.

NOTE BY ED. C. F.—There are specimens of a somewhat similar curiosity in the museum of the Canadian Institute in this city, sent some years ago from New Zealand. It is called the Vegetable Caterpillar (*Sphæria sicules*, or *Robertia*), and is thus described by a resident in New Zealand, in the *Canadian Journal*, Sept. 1857:—"It is very abundant in this country, especially upon the West coasts, where it is said that tons might be collected. I am in hopes it may become an article of trade with China, where the fungus is prized very highly, and is used as a medicine. The *Sphæria Robertia*, although bearing much resemblance to a caterpillar, is evidently a plant; the mode of its production is said to depend upon the growth of a sporule of the fungus germinating within the body of the animal while yet alive. Aware of the disease, the caterpillar seeks the shelter of the Ratā tree, and lays itself up to die under it; in due season the fungus shoots out its stem, flowers, seeds, and dies. From the specimens I have sent, abundant evidence of its fungus nature will be manifest. The butterfly that produces this caterpillar is said to be the *Hepialus sericeus*, [a genus of insects whose larvæ bore into wood, and are often very destructive, Ed. C. F.] When the eggs are hatched, the caterpillar seeks the Kalikaton tree, and bores into it to a great depth." In the specimens we have seen, the caterpillar, though dry and shrivelled up, is over two inches long, while the fungus that grows from its head is about three inches long, slender and sinuous, and terminating in some instances in a long seed-bearing cap. It is very interesting to observe in how many various ways nature contrives to place a check upon the increase of destructive insects, and thus keep their numbers within due bounds.

The State Entomologist of Illinois.

AS common with others, we have given the State authorities of Illinois credit for an amount of wisdom which it appears by the following extract they did not possess:—

The *Canada Farmer*, in its issue of July 15, 1867, congratulates the State of Illinois on their discernment and public spirit in creating and liberally endowing the Office of State Entomologist, and is "much pleased to learn that the appointment has been conferred upon the talented Editor of the *PRACTICAL ENTOMOLOGIST*." As I find that a similar delusion is very prevalent throughout the United States, and as I do not wish that the State, in which I am for the present residing, should be complimented for doing what in reality it has not done at all, I think it proper to give here the true facts of the case.

On the last day of the regular biennial Session, in the winter of 1866—7, our Legislature, as the *Canada Farmer* correctly states, "passed a Bill authorizing the appointment of a State Entomologist, with a salary of \$2,000 per annum," but only for a period of two years. By the terms of this law, the appointment was vested in the Governor, "by and with the advice of the Senate." On the earliest possible opportunity, namely, at the Special Session held in June, 1867, the Governor accordingly sent in my name to the Senate for the office. But instead of either confirming or rejecting the Governor's nomination, the Senate postponed all action upon it until the next regular biennial Session, in the winter of 1868—9, when, by the terms of the Law itself, the Office of State Entomologist will already have ceased to exist. In other words, they in effect vetoed a law which they, in common with the House, had in the first instance voted for; or, which is the same thing, took such action that the law became, for all practical purposes mere waste paper.

It strikes me that this is a good deal like the platform of the factious politician, who professed himself to be theoretically in favor of the Maine Liquor Law, but strongly opposed to its practical enforcement.—*Practical Entomologist*.



Agricultural Tour in Bruce and Grey.

To the Editor of THE CANADA FARMER :

SIR,—I have recently had the pleasure of spending a few weeks in the north-western section of the Province, including, principally, the whole of the county of Bruce and a part of Grey.

In Bruce public meetings were convened at the following places: Kincardine, Tiverton, Lucknow, Teeswater, Balaclava, Walkerton, Paisley, Port Elgin, and Invermay. The meetings took place in the evening, and considering that it was in the midst of harvest, the attendance on the whole was as good, or better, than I expected. The limits assigned to a communication of this nature will not admit of my recording the names of the great number of people with whom I had personal intercourse, and to whom I am indebted for kind attention and much useful information respecting the country. I must, therefore, be content, in a general way, to express my obligations and thanks to the officers of the various agricultural societies for the willingness they displayed in enabling me to get a good view of the country, and of acquiring an amount of valuable information which I could not otherwise have procured.

Bruce is the youngest county of Ontario, the commencement of its settlement only going back to 1848, but in a few years afterwards settlers went in rapidly, so that the whole of the land got into private hands, and was mostly owned by actual settlers, who bravely commenced the work of clearing the forest. The county contains 639,000 acres, of which above 200,000 are now cleared, and the stumps rapidly disappearing. It is estimated that this county exports from three to four hundred thousand bushels of wheat per year, and as clearing and better tillage proceed, this amount will become largely augmented. Indeed, it is to the rear and newer counties we must chiefly look for the production of wheat. In these sections the soil has not yet been exhausted of the ingredients necessary to the healthy growth of that crop, and a sufficient amount of shelter yet remains from the natural forest to afford needful protection. This question of shelter is a vital one to the Canadian farmer, as many of our cleared farms, denuded of almost every tree, but too plainly indicate. In a climate like ours especially, the preservation of portions of the forest is essential to the success of cultivation; otherwise the droughts of summer will inevitably become more frequent and severe, and the cold of winter intensified. The fact is, many of our farmers in some of the old settled districts will be obliged shortly to raise plantations for the purpose of shelter, and the necessary supply of wood for fuel and economic uses; and the art and science of forestry will have to be studied and practised in these parts of the American continent, as they have been for centuries in the older countries of Europe.

This matter then of protection, and the prevention of exhausting the soil by over-cropping, were among the principal topics which I thought it my duty to bring under the notice of the farmers of Bruce. Prevention in these, as in most other cases, is much easier than cure, and infinitely less expensive. Starting with a rich virgin soil, any man with an ordinary amount of good sense and practical experience can readily prevent the fertility of his land from running down. But to restore land that is already exhausted is a far more difficult and expensive matter—especially in a country having but a sparse population, and few manufactories, and where artificial manures are consequently scarce and dear. I trust that these and other topics, such as the improvement of live stock, dairy products, &c.,

which were all, more or less, freely discussed at the meetings I attended, as well as in private conversation, will not be wholly void of some good and lasting results.

In going through Bruce I was almost everywhere struck with the remarkable progress made in so short a period of time. The villages in which my meetings were held afford ocular proof of the rapid strides that have been and are being made in all the leading features of material progress. I cannot individualise; some places, of course, have gone on faster than others; but looking at the country as a whole, I must repeat, its progress has been astonishing, and probably unprecedented in the history of Canadian settlements. Here is a fine, gently undulating country, well drained by nature; no considerable tracts of second-rate land, with roads opened up and running straight at right angles, in both directions,—there being no hills or extensive swamps to occasion a diversion from a direct course; and one hundred and fifty miles of these roads properly graded, drained and gravelled! The average cost of these gravelled roads, I was informed, is about \$1200 a mile, including all expenses; and a toll-gate is nowhere to be seen! It is true that the surface of the country is very favourable for making good roads, and abundance of gravel is generally found on the banks of streams; but an apathetic and non-progressing people would long have left their resources latent, instead of developing them at once as rapidly as possible, as is now being done by the enterprising settlers of Bruce.

The question of a railway through this extensive section of country is closely occupying public attention, and there cannot be the slightest doubt that such a facility of inter-communication is greatly needed, and, if judiciously carried out, would prove remunerative.

In the flourishing village of Kincardine, I gave an address in the hall belonging to the Mechanics' Institute, when the members met for the interchange of books. The scene was interesting and suggestive. Among the current periodicals I observed the good old favorite of the people, "Chambers' Journal," "Good Words," and a number of the English sixpenny and shilling magazines, all of which seemed to be eagerly sought after. Here on the shores of Lake Huron, an unbroken wilderness, traversed only by the wild Indian, some sixteen years ago, I saw men earnest in the pursuit of useful knowledge, and imbibing pleasure and instruction from some of the leading periodicals of Britain, that had not even been published in London more than a fortnight before! Truly we live in an age of rapid transit, and of great and widely diffused intellectual power. The backwoodsman now-a-days is happily not absolutely removed, as was formerly the case for many long years, beyond the genial and elevating influences of science and literature. It has often occurred to me, how many thousands of industrious people at home, with large families, who daily struggle for a mere subsistence, would be irresistibly drawn to a fine and healthy country like this, did they but know of the advantages which it offers to honest and persevering labor. Notwithstanding, I have seen daily, both here and elsewhere, farmers put to the greatest straits for help to carry on the most necessary and pressing operations. It is hoped that something effectual will, ere long, be done to mitigate or remove this great impediment to our agricultural progress.

At Kincardine a stratum of clay, apparently of great extent, has been discovered, that produces scouring bricks of the best quality, quite equal, it is said, to the English Bath, which are largely imported both here and in the States. This new enterprise promises to be of great importance.

The live stock of the county is gradually improving, but there is much room for greater exertion in this respect. Considering the newness of the country, however, as much has been done, perhaps, as could be reasonably expected. I saw some excellent cattle and sheep belonging to Mr. Wm. Gouenloch, near Port Elgin. He has a number of calves and yearlings, pure-bred Durhams, that will do good ser-

vice in the county. I had also a passing opportunity of seeing the flock of Mr. Hewitson, of Arran, whose arrangements for wintering sheep are the best and most extensive that ever came under my notice in this country. He has several highly-bred Leicester rams and ewes, imported from the well-known flock of Mr. Grey, of Northumberland. As Mr. Hewitson has a considerable number of sheep for sale, an excellent opportunity is presented to the farmers of this section of country to improve their flocks.

I regret being prevented from seeing so much of the adjacent county of Grey as I intended, by an attack of hoarseness rendering speaking almost impracticable. This also is an extensive county, to which many of the remarks previously made will apply. The soil is not so uniformly good as that of Bruce: the limestone rocks, which underlie the whole country, crop out and form considerable elevations in several places in Grey. I was in Owen Sound and neighborhood two or three days, and held a few meetings; one near Leigh was quite interesting; the people were evidently intelligent and inquiring. There are some well cleared and managed farms for many miles on this road, and I was particularly pleased by the manner in which Mr. Harkness had used up the surface stones on his farm—very troublesome material when not removed—in the construction of fences and the walls of his dwelling house, and the foundations of his extensive farm buildings.

In conclusion, I would just observe that this section seems well adapted to the growth of fruit. Mr. Stafford, of Port Elgin, a pleasant and improving little place, has an excellent and thriving orchard; grapes, peaches, apples and pears, appeared productive. The peach, I find, is cultivated as far north as Owen Sound, where I noticed some good specimens, as well as of grapes and other fruits, in the gardens of the Sheriff, Mr. Scott, and others. Owen Sound is quite a place of business, is fast improving, and its surroundings are very picturesque.

The crops of all kinds have been generally abundant throughout this section of country, particularly wheat, both spring and winter, which is of excellent quality.

GEO. BUCKLAND

Toronto, Sept. 18, 1867.

Economy in Bread.

To the Editor of THE CANADA FARMER:

SIR,—Many persons, from choice, prefer bread made of unbolted wheat meal; and, in the opinion of many scientific and medical men, it is far more wholesome than that in common use, made from the pure farina of the grain. It is more digestible, and contains elements (the phosphates particularly) which exist only in very small quantity in superfine flour, yet are essential to the health and vigour of the body. The phosphate of lime, the element in food which produces bone, so essential to the stamina of the body, is said to exist to the amount of thirty pounds in five hundred of fine flour, but it amounts to eighty-five pounds, or nearly three times greater, in the same quantity of unbolted wheat meal. Experiments have been made on animals with bread made from both kinds of flour, and while those fed exclusively on that made from the finest flour died within a limited period, others fed on that made from unbolted wheat meal were healthy and vigorous. Thus commending the coarse bread on account of its quality, I now refer to its cheapness when properly made.

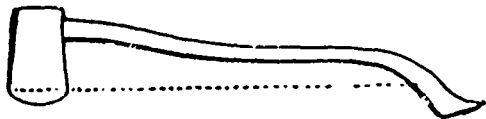
It is well known that millers generally charge as much for unbolted meal as for the finest flour, and this, I doubt not, prevents many persons from using it. There can be no good reason for this charge, but parties requiring the meal have supposed there was no alternative but to submit to it. Now, any good domestic baker may produce sweet, wholesome bread, equal to any made from unbolted wheat meal, by simply mixing equal parts of fine flour, middlings, (or the best shorts), and good bran together, and baking in the ordinary manner, giving it rather a longer time in the oven than fine bread. The cost of the mixture of the three ingredients will be found to be only about half the price of fine flour. This is an important consideration for every one, but particularly the poor in time of scarcity. Were children fed more generally on this kind of bread, there would be much less disease, such as rickets softening of the spine, decay of teeth, &c.

COMMON SENSE.

York Township, 5th Sept. 1867.

How to Hang an Axe.

STEPHEN WASHINGTON sends the following: "Having seen in THE CANADA FARMER, some time back, an article on chopping and the way an axe should be hung, and having adopted in my own practice a plan somewhat different from the method there recommended, I would like to give my own views on the subject. In the first place, the crook at the hand-hold should be no longer than the width of the



man's hand who uses the axe; all the rest of the curve should be the other way, and just enough to make the edge of the axe naturally incline forwards; and the two corners of the axe should be exactly on a line with the middle of the hand-hold, as shown in the accompanying cut. This will always bring the bit of the axe square upon the stick you are chopping. This is the correct principle, and will be admitted by every one who has ever done much chopping.

Advice to Immigrants.

A correspondent, newly arrived, Mr. James Williams, writes from Toronto as follows:—

"Would any of your readers kindly inform me on the following points?

1st. What township would they consider the best for an immigrant with a small capital, say \$100, to settle in, supposing he wanted to buy 100 acres?

2nd. Do they consider the above sum sufficient to start with by a single man?

3rd. Would it be much better if two began with double the sum?

4th. Do they know of any good wild land in the market at the present time, which could be bought at one dollar per acre? I am but just arrived in this country, and should be glad to receive information on the above points?"

We remember seeing, some time ago, in *Punch*, the following pithy piece of humor: "Advice to persons about to marry—DO NOT!" Now in all seriousness we would give similar advice to our correspondent in regard to the matter of buying land. As he is fresh from England, he must, to a great extent, be ignorant of the specialities of Canadian farming in the back woods, of our markets, and a hundred things which it is desirable he should know before he embarks on the work of clearing a farm. If he will add up a few items of expense—for example, the price of a working team of horses or oxen, and the necessary implements, such as waggon, sleigh, plough, harrows, chains, harness, &c., and then consider what he will have left for even part payment of his land and one or perhaps two years' maintenance, surely he will not part with his small capital in so hopeless an undertaking. Our earnest advice to him is to take care of his money; put it out to interest in some safe investment, and hire out for a year or two on some farm. This will put money into his pocket, instead of sinking it all, will give him most valuable experience, time to look about and become acquainted with the country, and put him in a position, at the end of the term, to spend his capital, augmented by his gains in the meantime, to the best advantage, instead of almost inevitably losing it all, and exposing himself to hardships and privations innumerable. In one word, we earnestly and emphatically counsel him to—
WAIT.

SAMPLES OF GRAIN.—We have received from Mr. George Forman, of Stratford, some samples of grain, but have not space for any longer notice respecting them in the present issue.

PRICE OF DRESSED HOGS.—"A subscriber," writing from Queensville, asks—"what is the price of dressed hogs, and what is likely to be the price throughout the season?"

ANS.—Only a few dressed hogs have, as yet, been brought into market. The price current for the light weights now offering is from \$5 00 to \$5 25. It is impossible to say what prices may rule later in the season, depending as the rate must upon so many contingencies. The opinion among dealers, however, is that the opening price will be from \$5 75 to \$6 00 per 100 lbs.

CABBAGES NOT HEADING.—G. W., writing from Bracebridge, County of Simcoe, enquires: "Will you or any of your readers kindly inform me what is the cause of cabbages not filling in the heart? I planted one hundred of the Drumhead in a loamy soil in places where log-heaps had been burned, I mixed the ashes with the soil, I hoed the ground round them once a week, but only two out of the hundred have any heart, the rest have nothing but large leaves. I planted some in ground without ashes, but with no better results."

NOTE BY ED. C. F.—We believe the cause of the failure is probably due to the drought of the past season; we have had a similar experience in our own garden, with cauliflower, which last year headed abundantly.

The Canada Farmer.

TORONTO, CANADA, OCT. 1, 1867.

The Provincial Show

THE Annual Exhibition of the Agricultural Association of Ontario has just come off, having been held at Kingston during the past week. Taking everything into account, and especially making due allowance for the place of meeting, the affair may very properly be pronounced a success. Of course locality very much affects a thing of this kind, and it were unreasonable to expect so good a show at the extreme points east and west as at the centre. Kingston is, from local disadvantages, the poorest place for the Provincial Exhibition of the four at which we are accustomed to hold it; and although the one just over has been greatly in advance of its predecessors, we very much question if the receipts of the present year will do more than defray expenses. On the last occasion of the kind at Kingston, the Association lost some \$2,000. At Toronto and Hamilton, handsome profits are obtained when favorable weather is had, and it is not a little vexatious that what is made one year at a central, convenient, accessible point, should be sunk the following year through the remoteness of the place of exhibition. We believe that every year, weather permitting, the Provincial Show, held at Toronto, would be a paying concern, and it is a subject the farmers of Ontario would do well to consider, whether hereafter it might not be desirable to fix it as one of the permanent institutions of the metropolis and seat of Government. We can readily anticipate the objections to such a proposition, but, query, would not the greatest good to the greatest number be secured in this way? If so, that ought to settle the point. Many advantages would result from the course we have suggested, especially those connected with commodious and permanent buildings, which it would be easy to secure, if the exhibition were always held at the centre.

Of course, the number of entries fell considerably below that of last year, but most of the departments were filled in a creditable manner, and there were very few instances of glaring or even noticeable deficiency. Altogether there were about 16,000 tickets sold, and though the grounds and buildings were never at

any time uncomfortably crowded, yet on Wednesday and Thursday they presented a very animated appearance. The weather throughout was fine. Wind and dust were somewhat troublesome the first day, but heavy shower early on Wednesday morning effectually abated the dust nuisance, and enabled people to move about comfortably. Details as to the display made in the several departments will be found under their appropriate headings, but a few general remarks will not be out of place here. It is very satisfactory to note the evidence afforded year by year that the farming community is alive to the importance of keeping up improvement in their live stock. Though in this respect the muster was not so strong numerically as last year, yet its character was excellent. All the horse classes were well represented except the thorough-bred, of which there was only one specimen. The draught horses were particularly good. Some newly-imported animals were on the ground. The cattle, though somewhat deficient in number, were excellent in quality, Herefords and Ayrshires being particularly good. The Ayrshires were numerous as well as excellent in quality. There was a very fine display of sheep, the various breeds being represented about in proportion to their relative values. The Merinoes were more numerous and respectable than usual. Both in the cattle and sheep departments there were newly-imported animals of great merit, and Mr. M. H. Cochrane, of Compton, in the Province of Quebec, deserves most honourable mention for the spirit he has displayed in this direction. His importations the present year of Suffolk horses, Rosedale, a noted prize Durham cow, Cotswold, Leicester and Down sheep, and Berkshire hogs, are a very valuable addition to the breeding stock of the country. Such enterprise deserves the highest commendation, and will, we trust, obtain substantial reward. The pigs were scarcely an average show, though some fine animals were to be seen. The poultry department was disappointing, on a very few really good coops being shown. Among these, three pairs of newly-imported French fowls of the La Fleche, Houdan and Crev Cœur varieties were especially conspicuous. Many splendid samples of grain were exhibited, proving conclusively that the soil of Canada has lost none of its adaptation to the cereals, if it be only well tilled. Some bags of spring wheat were especially good. What one farmer can do can also be accomplished by his brother and neighbor farmers, and we should be glad to get, for the guidance of others, any particulars respecting the soil, mode of culture, harvesting, &c., of the premium grains. The show of roots was not first class, owing to the general prevalence of dry weather. Except in thoroughly drained land, root crops suffer terribly from drought. Horticultural products in general were also affected by the dryness of the summer, and were not so fine as they would otherwise have been. Nevertheless there was a tempting show of fruit, and year by year evidence accumulates that ours is a good fruit-growing country. Finer apples, pears, plums and grapes, than those on exhibition at Kingston, could not be desired. Dairy products were in but small supply, and scarcely up to the right standard of excellence. The implement department was not so extensive as could have been desired, but contained a number of very valuable, well-made articles. There was a limited but good display of wheel vehicles. The departments of arts and manufactures were well fitted, but it is the province of another journal to speak of their merits.

There was the usual tardiness in getting articles and animals on the ground; the usual difficulty of finding out particulars for want of labels in the absence of exhibitors; the usual want of punctuality in not judging animals, &c., at appointed times; the usual confusion and disorder here and there; the usual collection of outside shows, most of them arrant humbugs and catch-penny cheats; the usual crowding of hotels and boarding-houses, and consequent exorbi-

tant charges; the usual stampede on the last day, with hurry-scurrying and crushing at the trains; but on the whole the Provincial Exhibition of 1867 marks an epoch of progress, and will doubtless in many respects be productive of great good.

Michigan State Fair.

[EDITORIAL CORRESPONDENCE.]

DETROIT, September 13, 1867.

In order to steal a march upon the equinoctial storm, and if possible secure fine weather, the Michigan Agricultural Society fixed their Annual Exhibition this year at an earlier period than usual. Last year, incessant rain well-nigh spoiled their Show; but on the present occasion the weather, until today, has been most propitious. While I write the rain is descending in torrents; but this being the last day of the exhibition, its success is already a "foregone conclusion," while, from the violence of the storm, there is every probability of abatement by the afternoon. Thus far everything has gone off quite prosperously. The entries in the several departments have been as follows:—

| | |
|---------------------------------------|------|
| Cattle..... | 132 |
| Horses, Mules and Jacks..... | 246 |
| Sheep, Swine and Poultry..... | 184 |
| Farm Implements..... | 463 |
| Field and Garden Implements..... | 71 |
| Dairy and Household Manufactures..... | 97 |
| Domestic Manufactures..... | 144 |
| Fine Arts, Needle Work, &c..... | 277 |
| Flowers and Fruit..... | 168 |
| Miscellaneous..... | 257 |
| Racing..... | 28 |
| Total..... | 2065 |

The receipts have been large, as will be seen by the subjoined return:—

| | |
|-----------------|------------|
| First day..... | \$ 503 00 |
| Second day..... | 3,283 00 |
| Third day..... | 5,768 00 |
| Total..... | \$9,644 00 |

Before the rain commenced this morning, a considerable number of persons had made their way to the Fair Ground, and should the weather clear up this afternoon many more will go, so that a handsome addition may yet be made to the receipts as above reported.

The Exhibition is held on the Association Park grounds, Hamtramck, about three and half miles from the city, up the river, and on its bank. Spacious temporary buildings have been erected within a large circle, bounded by a race course. In these, all the articles and animals on exhibition are housed, with the exception of the implements, which are for the most part out of doors, and the horses, which are accommodated with a long range of stabling outside the race track. The offices of the President, Secretary, Treasurer, and Committees, are conveniently located in a central position, and close beside them, covered with placards, is a roomy Editorial shanty, jointly owned by the *Advertiser* and *Tribune* and *Western Rural*, where all the representatives of the press find cordial welcome, together with writing facilities and materials. In attempting to give some idea of the Exhibition, it will be as well perhaps to follow the order of the foregoing entry list. Beginning, then, with the cattle, it must be acknowledged that the display is a rather meagre one, both as to number and quality. Among the several classes, the Devons are best represented. A herd of thirteen, owned by Walter Cole, of Batavia, Genesee county, N. Y., comprise some excellent specimens of this breed. The Michigan exhibitors of Devon cattle are Calvin Pierce, of Disco, Macomb county; the State Agricultural Society; John Allen, of Coldwater, Branch county; and William E. Robinson, also of Coldwater. Samuel Toms, of Oshawa, Ontario, shows a very promising two-year old Devon bull, "Duke of Somerset," bred from imported stock, and weighing 1,800 lbs. Mr. Toms also shows a Devon cow and calf. D. M. Uhl, of Ypsilanti, exhibits a fine herd of Short-Horns, headed by the four-year old

bull, "De Grey," bred by Mr. R. A. Alexander, of Kentucky. His cow "Florence," eight years old, is a fine specimen of a Durham milker, being in good condition, and yet giving a large yield of milk. F. E. Bush, of Le Roy, Calhoun county, exhibits a good two-year-old Durham bull, "Grand Duke, jun.," which took the first prize last year as a yearling, and is an animal of much promise. E. Curran, of Washington, Macomb county, shows a four-year-old cow, "Young Jenny," with a calf at her side, which is a good specimen of a strain known in the United States as the "Shaker Durhams." H. H. Tillotson, of Marshall, Calhoun county, shows a herd of short-horns, comprising some good animals, among which may be mentioned a fifteen-month-old bull, "Sheldon's Duke," and an eight-year-old cow of the Shaker strain, "Dimity Queen." A few Ayrshires are shown by F. E. Eldred, of Farmington, Oakland county, and the State Agricultural Society. A solitary Galloway bull, the property of the State Agricultural Society, attracts much attention, most of the visitors never having seen the like before. Some fine yokes of working oxen are shown, and a Detroit butcher, W. Smith by name, has twenty-two head of fat cattle, among them a pair of milk-white steers, said to weigh 4,900 lbs., and destined to make Christmas beef. The collection of horses is a truly splendid one. Our American cousins are "great" on horse flesh, and Michigan is not a whit behind any of her sister States in this respect. In this necessarily brief notice of the several departments of the Show, not much can be done by way of particularization among so many as 211 entries of horses. A list merely of the most noteworthy animals would consume a large amount of space. Suffice it to say, then, that thoroughbreds, roadsters, all-workers, draught, carriage and saddle horses, brood mares, colts and fillies, are all represented—some of the classes by animals of continental reputation, and several of the exhibitors hailing from the Dominion of Canada. Mules, jacks and jennies, are also on exhibition. We should judge that mules are coming into more extensive use among our American neighbors as beasts of all-work. The display of sheep is even more limited than that of cattle, and but for the enterprise of several Canadian flock-masters, would have been an utter failure. Indeed, so far as Michigan is concerned, it is so. For some reason or other, even the Merinos are very poorly represented. Whether the praiseworthy efforts of Mr. Sanford Howard, and other prominent men in the State Agricultural Society, to turn attention towards long-wooled sheep, have given offence to Merino breeders or not, we are unable to say; but certain it is that almost by general consent they have kept their flocks at home. P. S. Charlton, of St. Clair, is well-nigh "alone in his glory" as a Merino exhibitor; he has, however, the company of J. W. Langworthy, of Lancaster, Erie Co., N. Y., who has brought nine Merino bucks, to sell, no doubt, to Michigan Merino-men. E. Driggs, of Rome Centre, and Mr. Wallington, of Saline, are almost the only Michigan exhibitors of Long-wools. Canada is well represented by George Miller, of Markham, with fifty-one sheep and lambs, mostly Leicesters and Cotswolds, and a few Shropshire Downs; Messrs. Bishop and Lovering, of Oxford, with seventy Leicesters and Cotswolds; Samuel Toms, of Oshawa, with twenty Leicesters and twenty-three Southdowns; Wm. Hendrie, of Hamilton, with five Cotswolds and twenty-three Leicesters, and Adam Oliver, of Perth, with eleven Leicesters. The show of swine is small and select. H. D. Court, of Battle Creek, has thirty Chester whites of various sizes, headed by his three-year old boar "Ben," weighing 754 lbs. W. Smith, of Detroit, shows nine hogs of the Suffolk and Essex breeds, which appear to great advantage beside the big-boned and coarse-fleshed Chesters. Two of Mr. Smith's Suffolks, only seven months old, weigh 400 lbs. a piece, and are beautiful specimens of the breed. A mammoth coop, intended for poultry, has very few occupants, chiefly Brahmas,

and the poultry department may, without libel, be branded *nil*.

The array of field, farm and garden implements is usually very varied and extensive at all the United States Agricultural Fairs, and the present is no exception to the general rule. Five hundred and thirty entries make up a pretty extensive assortment, and one that baffles brevity of description. Most of the articles, however, wear familiar faces, and no words need be wasted on ploughs, harrows, cultivators, reaping, mowing and threshing machines. The presence of several seed drills and manure sowers may be regarded as a sign of improving agriculture. A potato-planter, and four different styles of potato-diggers, attract much attention. So does a ditching machine, which looks as if it might dig a drain without much hard labour being required. Corn-huskers, both hand and horse-power, are shown, implements of great value to Western farmers, disposing, as they do, of the most tedious part of the work in harvesting corn. Corn-shellers are also shown, which work to a charm. Cider-mills, of very portable and simple construction, are exhibited in actual operation, and the sweet cider retailed as fast as made, at five cents per glass. An ingenious gate, to be opened or closed by a person on horseback or in a vehicle, is shown both by model, and in full working size and operation. Fences of various styles are to be seen, among them a self-supporting straight-rail fence, held in place by stakes driven into the ground on either side, only a few inches from the line of the fence. A number of wood-sawing machines are on the ground, one of which, "Boynton's Lightning Cross-cut Saw," deservedly attracts much notice. It works either by horse or hand power. Tried by hand, two men working it, a knotty bush log, sound and seasoned, twelve inches in diameter, was cut off in ten seconds. It was stated that twenty-six cords of wood had thus been sawed by it in eight hours. With a pair of horses attached, it cut an oak log of eighteen inches diameter in nine seconds, and the same log was cut by hand in twenty-eight seconds. The peculiar excellence of this saw consists in reducing friction to the minimum point, and raising the cutting power to the maximum point. The inventor and patentee is Mr. E. M. Boynton, of Grand Rapids, Michigan. A self-unloading waggon is shown, which, by an ingenious arrangement of rollers and stakes on an inclined bottom, unloads itself of the heaviest load at the single turn of a crank. It is chiefly meant for hauling timber and lumber. Hay rakes and tedders are on the ground, and the usual display of horse-pitchforks. Fruit ladders of several kinds are on exhibition, and for sale on the spot, it being the season for fruit gathering. One of them works on the plan of the picker hoisting and lowering himself with a windlass. A new style of hoe is shown, which can be set at various angles, or used entirely straight as a Dutch hoe. "The simplest and cheapest power in the world" is displayed in the shape of a self-adjusting windmill, engaged in the double operation of pumping and churning. A spanking breeze from morning till night kept this wind-power in constant and busy motion. Coming now to the contents and vicinage of the several buildings, "Carriage Hall" first presents itself for inspection. Within and around it we find a very large and attractive display of wheeled vehicles of all sorts and sizes, from a light trotting sulky to a heavy farm waggon. This feature of the show far surpasses anything of the kind we ever witnessed elsewhere, and does the carriage-makers of Michigan immense credit. From the number of vehicles labelled "sold" before the close of the fair, this method of advertising seems to have succeeded in a high degree. "Mechanical Hall" comes next in order. Here the central object is a large stationary steam-engine, designed to furnish power wherewith to drive the machinery on exhibition. Rods and band wheels are erected all through the building in convenient positions for use. Lath mills, shingle-splitters, barrel-headers, &c., are fizzing

away at a great rate, and some care is needed to keep visitors from dangerous proximity to them. The Detroit Mechanics' and Inventors' Association occupy nearly one-half of this building with models and machines of various kinds, and have also some forty agricultural implements out of doors. Several convenient and spacious refrigerators are shown here, one of them labelled "The coolest thing this side of the North Pole." Since the acquisition of Walrusia the United States ought to be able to produce any desired degree or amount of refrigeration. A large, and apparently effective cooking apparatus, occupies one corner of this building, so that the two extremes of heat and cold are in close juxtaposition with each other. "Manufacturers' Hall" contains a somewhat motley array of articles. At the front entrance is a large and beautiful assortment of cabinet-makers' wares, from the factory of Henry Weber, Detroit. Spring beds of various patterns, and bed-lounges, costing from \$25 to \$100 a piece, are shown by several makers. An assortment of cloths from the Jonesville Woollen Mills is much admired. It consists of beaver overcoatings, tweed and casimere trousers, Canadian grey, and farmers' wives' dress woollens. Morgan, of Detroit, an enterprising boot and shoe maker, exhibits a large and varied assortment of goods. Hoop skirts, of their own manufacture, are shown by Bottomley & Land, of Almont. The Michigan Salt Company, of Saginaw, exhibit some fine specimens of "solar salt," so called because made by solar evaporation. It is of transparent whiteness, and said to be the best description of salt for packing purposes. A large collection of stoves occupies considerable space in this hall, and some styles of soap-stone stoves, especially an open Franklin pattern, are particularly deserving of attention. The Detroit Chair Factory, and House of Correction, display a variety of beautifully-made chairs. Specimens of wood-turning, India-rubber goods, combination school seats and desks, samples from the Detroit White Lead Works, and other things "too numerous to mention," attract the eye of the beholder. Two other prominent features of this Hall must not be forgotten—one, an exhibition of some fifty varieties of scales by N. B. Bowley & Son; and the other, a magnificent display of carpets from the stores of Messrs. Abbot, and J. Nall, Jr., & Co. "Agricultural Hall" is also somewhat motley in its contents, having in it many things not particularly agricultural in their character. Rock and ground Michigan plaster, raw-bone and super-phosphate, flavouring extracts, perfumery and pop-corn, are "all in a row" on one side. Samples of cider and malt vinegar, cigars and specimens of tobacco, both raw and manufactured, cheese, beets, pumpkins and a few other vegetable products, are collected here in a rather confused state. An ingeniously contrived desk and counter seat is shown in this department by S. E. Hatfield, of Oshtemo, Kalamazoo county, which folds away into a very small compass, and would be very useful as a means of supplying extra seats for churches and public halls in case of a crowd. But the chief object of attraction in this hall is "Bristol's dish-washing machine," a simply constructed piece of mechanism, which performs its allotted work with great dispatch, to the astonishment of all beholders. After a close observation and actual trial of it, we must own that Yankee genius appears to have added to its beneficent inventions for ameliorating the lot of woman, an effective dish-washer. Farewell now to scalded finger tips, and unlady-like hands. Ladies condemned to do their own work never need put their hands into dish-water. Eight dollars American money, remitted to John I. D. Bristol & Co., Detroit, will secure this domestic convenience, and with it escape from the sorrows of dish-washing. A machine for cutting leather fly-nets for horses is also exhibited in actual operation, and is said to be capable of cutting three hundred per diem. Cullen Brown, Detroit, receives orders for it. An important discovery in the shape of "Longsdorf's patent paint" is exhibited in this hall. It is said to be a complete substitute for lead and oil, not costing one-fourth the expense which they do. Longsdorf & Bros., Mechanicsburg, Penn., are the proprietors of this discovery. "Fruit Hall and Floral Hall" must be dismissed with a very brief notice. The time of the show was too early for a good display of fruit, and hence but a limited quantity is on hand. Grapes especially are not far enough advanced to show to advantage, the out-door kinds having scarcely begun to colour. Beside green fruit of various kinds, a large collection of canned fruits is shown, very nicely got up in glass jars. The fruit yield in Michigan this year is said to be below average; yet plenty of luscious peaches, pears, and apples were for sale, at low prices to all comers to the fair. The principal part of the show in Floral Hall was not the flowers, by any means. The chief floral exhibitor was that enterprising seedsman and florist, James Vick, of Rochester, N. Y., who by way of advertising his seeds sent a beautiful collection of dahlias, asters, gladioli,

and other late blooming plants. Messrs. Ford and Adair, of Detroit, and E. P. Powel, of Adrian, also show roses, asters, phloxes, &c. "Floral Hall" is, however, chiefly occupied with pianos, melodeons, and other musical instruments; with sewing-machines of all the well-known makes; with displays of jewellery, lamps, photographs, and paintings in oils and water colours. Near "Floral Hall" the bee-men had an attractive side show of their own. Messrs. Kidder, of Vermont, Flanders, of Ohio, and Thomas, of Canada, conducted this department, and had interested crowds around them all the time, witnessing their control over "the little busy bee," inspecting the hives, and buying bee-books and bee-charms. The Thomas' hive distanced its competitors, and carried off the first prize, thus confirming, by the judgment of disinterested parties, the high opinion formed of it by those Canadian bee-keepers who have put its merits to the test. "Racing—twenty-eight entries"—forms an odd and highly objectionable feature in the Exhibition; but with the exception of the State of New York, all the State Fairs, so far as I know, include the race-course as a permanent institution. This is very much to be wondered at, and regretted; for quite apart from any moral view of the matter, racing and the pursuits of agriculture are so foreign and incongruous to each other, that the introduction of the former cannot but militate against the interests of the latter. This is freely acknowledged by leading agriculturists here and in other States, where, nevertheless, racing is on the Exhibition programme; but the plea is, "we cannot get a sufficient attendance to make the thing pay if we exclude racing." This is a sorry confession, while it conveys a high compliment to New York and Canada, who can and do make their exhibitions pay without such a concomitant, and who could not be induced, there is reason to believe, by any kind or degree of persuasion, to introduce this feature. On the whole, however, the Michigan State Fair of 1867 is highly creditable to the industry, intelligence, in ventive skill, and energy of the people, betokening great progress, and giving promise of a bright future of agricultural and commercial prosperity.

Annual Meeting of the Provincial Association.

On Friday Morning, Sept. 27th, the annual meeting of delegates was held on the grounds, and on motion of Mr. McRae, seconded by Mr. Rykert, the City of Hamilton was fixed on as the next place of Exhibition. The Mayor of Hamilton said that the City Council had pledged themselves to provide sufficient and suitable accommodation, and to do whatever could be done for the Fair, within the bounds of reason. Mr. Swinyard had also offered the usual railway accommodation for freight and passengers to the exhibition, and an effort is to be made to prevent the transhipment of the freight at Toronto that week.

The following officers were elected for the ensuing year:—On motion of Mr. Rykert, seconded by Mr. Caven, Mr. Thomas Stock, of East Flamboro, was elected President. On motion of Mr. Madden, seconded by Mr. Roderick, Mr. James Nimmo, of Camden, was chosen first Vice-President. On motion of Mr. Stock, seconded by Mr. Rykert, Mr. John Walton, of Peterboro, was appointed second Vice-President. On motion of Mr. Brown, seconded by Mr. H. J. Morgan, Mr. R. L. Denison was appointed Treasurer.

Thanks having been voted to all the officers for the past year, and to the Grand Trunk R. R., it was resolved on motion of Mr. R. L. Denison, seconded by Mr. Shea, that in the opinion of this meeting it will be advisable for the county agricultural societies, mechanics' institutes, and horticultural societies, each to appoint one delegate to attend a meeting of the Board of Agriculture during the month of November, in the City of Toronto, to advise with them upon an application to Parliament for a new Agricultural Bill—the time to be fixed by the board, who shall send a circular to each county society, and that the name of each delegate be forwarded to the secretary of the board; also, that each delegate be paid by his own society.

On motion of Mr. Morgan, seconded by Mr. Woodburne, it was resolved that the Board take such steps as they may deem expedient for the repayment to the different societies of the deficiency caused by the failure of the Upper Canada Bank. Mr. Alexander said the Board were doing what they could. The matter had been represented to Mr. McGee and Mr. Howland, who promised to do their utmost to have the deficiency made good. Owing to the constitutional changes, nothing had been accomplished, but the Board would press the matter on every occasion.

Mr. McIver, seconded by Mr. Roderick, moved that the directors be requested to exclude the names of exhibitors from the tickets attached to articles until the prizes were awarded. Lost.

On motion of Mr. Hendrie, seconded by Mr. McLarin, it was resolved that it was desirable to change the day of the annual meeting to Thursday, and that the delegates to the Toronto meeting in November next be requested to take the point into consideration.

A letter was read from the Secretary of the Lower Canada Agricultural Association, suggesting an Intercolonial Exhibition, to be held at Montreal. The meeting then adjourned.

The President's Address.

ALTHOUGH the President's address, in consequence of its premature publication by one of the local papers, was not delivered, it has nevertheless appeared in the public journals; it naturally ranks among the proceedings of the association, and our record of the exhibition would seem very incomplete without a document of so much importance, which is, moreover, well worthy of perusal by all interested in Canadian Agriculture. The following is the published address:—

FARMERS OF ONTARIO.—The revolution of another year imposes on me, as President of this Association, the duty of addressing you on some of those matters which we have again met to promote by an extended and open competition. In doing so, I shall not occupy your time at any great length, but simply offer for your consideration some plain, practical observations in reference to the great interests which it is the main object of this Society to subserve.

We are essentially an Agricultural Association, and cannot be too frequently reminded that whatever contributes to the physical support and comfort of man may, in one form or other, be traced ultimately to the soil, without the cultivation of which we should not only be deprived of our "daily bread," but also of those raw materials which the ingenuity and industry of man enable him to work up into articles of necessity or luxury, contributing to the wants and comforts, the refinements and elegancies of civilized life.

The beneficent author of our being has made the labour of the husbandman the means and condition for obtaining the necessaries of life, thereby indicating the duty of cherishing that earnest thought, long and careful observation, and persevering industry in the cultivation and management of the soil, on the results of which the comforts and prosperity, and the very life of nations even, largely depend.

Now, how do we Canadian farmers stand in relation to the great question of the soil? The answer we can honestly give will be a correct exponent of the true condition of our agriculture, and afford data by which to measure our progress or retrogression. In the infancy of our settlements, as the dense forests were felled, the virgin soil generally produced abundantly, under a crude and primitive management, to which the term "cultivation" would hardly apply. In the course of years, sometimes not many, the productive power of the soil was found to undergo a gradual diminution, till at length it ceased, in too many instances, to yield a remunerative return—a state of things wholly brought about by constant cropping, superficial cultivation, and inadequate manuring. In this manner the soil has been gradually—in some instances almost insensibly—wearing down in various parts of this country; and from the nature of the treatment it has but too commonly received, no other result could in the nature of things have happened but the one which there is so much reason to deplore.

With the fact of the tendency of the soil to comparative exhaustion in many places of our older settled districts staring us in the face, it becomes important for us to ask what can be done to prevent or arrest this downward movement? The answer is obvious—a deeper, cleaner, and more thorough cultivation; the better preservation and more judicious management of manure, and the observance, as far as circumstances admit, of some sound, recognized principle in the rotation of crops. I have long been persuaded that farmers in general have been in the habit of cultivating more land than their means enabled them to do well, and, as a natural consequence, the results have become, by degrees, more and more unsatisfactory. In new soils, naturally adapted to the raising of wheat, as in the case with

most of the land in the Province of Ontario, that crop has been in many instances so often repeated, sometimes even for years in almost unbroken succession, that it has become, in some places, the most uncertain and precarious of all the crops of the farm. It is more than probable that, with a more thorough system of cultivation, and less frequent cropping with the same kind of grain, and with the observance of other salutary measures which modern science and improved practice now distinctly recognize, we should have comparatively little rust, midge, smut, &c., which have of late years so alarmingly increased. Efficient draining of wet land, of which there is more or less to be found in all districts, is the beginning and basis of all agricultural improvements. On wet and heavy lands, deep culture even, and liberal manuring are almost thrown away. The introduction, therefore, of a judicious system of under-draining, wherever required, would aid in an astonishing degree all other appliances for developing the natural resources of the soil. This work of amelioration, however, in a new country where capital is scarce, labour dear, and produce often low in price, must necessarily be slow. But it is most obviously the interest of farmers and of the community to push this important movement on as fast as possible. All capital judiciously expended in draining will never fail of making a profitable return. Where tiles or stones cannot conveniently be obtained, boards or even boughs, or old rails might be advantageously employed. Before, however, underdraining is largely adopted in a new country, the scouring out of obstructed creeks and little streams, which are the natural channels of drainage, to improve the outfall, should be the first or preliminary operation. It is astonishing how a little sound attention to such matters, in some places, will relieve many acres of land of superfluous water lying on the surface during the heavy rains of autumn, or from the melting snow of early spring. It is pleasing to observe that drain tiles and pipes are now being manufactured by machinery in various places in the Province, of good quality and at reasonable rates.

If farmers in general were to reduce the proportion of arable land and cultivate a smaller quantity more thoroughly, with proper attention to manuring and the rotation of crops, they would produce as much, and in some cases probably more, than they now do, and have a larger breadth for the purpose of pasture, in which state it is well known that soils reduced by too severe cropping, slowly, but certainly, become renovated. Now, it is, in my estimation, to the extending of productive pasture, in connection with the breeding and fattening of stock and of the dairy, that we must mainly look for the means of renovating our exhausted arable lands, and of securing the advantages of an improved system of farming. Within the past year or two a great impetus has been given, in various parts of the country, to the production of cheese on the co-operation principle.

We regard this movement, if judiciously conducted, as a sign of healthy progress. The increase and improvement of pasturage will act beneficially on the growing of grain, for the more animals we keep the more manure we make, and manure is the farmers' sheet anchor; hence the chief motive to increase and preserve it from deterioration, a matter sadly neglected in this country. In order, however, to reap the full benefit of cheese-making, either in factories or private dairies, it will be essential to produce an article of first quality, which will always command a price more or less profitable, according to the well understood principle of the relative amount of supply and demand in accessible markets. Inferior butter or cheese will hardly ever bring a profit in any market; and to export such articles to England would injure our character for these products, and entail upon us an inevitable money loss. Skill, perfect cleanliness, and systematic attention, are essential qualifications for the successful carrying on of the dairy business; which is also naturally affected by the quality of the pasture and the different breeds of cows. A cross from a pure-bred Ayrshire or Durham bull and our best native cows, will be generally found to answer well. It is much to be desired that our domestic consumption of cheese should be increased, as it contains a large amount of strengthening and wholesome food in a small compass, specially adapted to people who undergo much physical exertion. If the people of this continent could be got to consume cheese at all in proportion to those of Europe, there never could exist the slightest danger of over-stocking the market. The consumption of cheese is, we believe, steadily on the increase, both here and in the United States, where its production is rapidly assuming gigantic proportions.

The improvement of live stock is among the chief objects which this Association seeks to promote, and those who are acquainted with its history need not be told, that in this, as in other important respects, its mission has been eminently successful. Much,

however, indeed, very much, remains to be done in this direction, both by the Provincial Association and its kindred societies throughout the Province. We have already, thanks to the public spirit of a few enterprising importers and breeders, as fine animals as can anywhere be found, whether horses, cattle, sheep or swine; which, if our farmers would more generally avail themselves of, the money value of the live stock of this Province would speedily be doubled. The surest and most practicable way of accomplishing this object seems to me the general use in all the more advanced parts of the country of pure-bred male animals, a thing now comparatively easy to what it was but a few years ago. Societies and individuals should do their utmost for the practical and speedy accomplishment of this most valuable object. As an evidence that something has already been done in this important direction, I need only refer to the Canadian Herd Book, a good, portly volume, just on the eve of publication, containing the pedigrees of several hundreds of short-horned cattle. It is a source of devout thankfulness that the European cattle plague has hitherto been kept from our shores; and although the prohibition which the Government saw fit to make in regard to importation has, no doubt, prevented a number of infected animals coming into the country, yet it must be felt that the imminent peril to which we were exposed fully justified the measure. Happily the plague has been stayed, and is now almost extinct in the mother country, where its ravages have been protracted and tremendous; the greatest caution, however, should be exercised for a considerable time to come in regard to importations, and a modified prohibition will have probably to be continued, till all chances of danger have passed away.

I may mention as a sign of progress, in connection with the improvement and enhanced value of farm stock, the Veterinary School that has been established in Toronto by the Board of Agriculture, for the benefit chiefly of the agricultural interests. You will be pleased to learn that its progress, though slow, is, nevertheless, constant and healthy. At the end of last term four pupils passed their final examination, conducted on the same principles, and embracing the same subjects, as those of Victoria College of London and Edinburgh, and obtained the Diploma of the Board. These young men, with the three that passed the previous year, are located in different parts of the Province, and have, I am happy to learn, already attained to useful positions. As our live stock increases in amount, and improves in quality and value, the services of men specially educated for their profession becomes every day more needed in cases of serious accidents or disease, and the owners of stock will find that in the end it is far cheaper to employ well-tested professional talent, than to trust to good luck or ignorant empirics. Last year there were fifteen young men in this school studying professionally. I may also observe that the Board has, with the assistance of some of the Professors in the University College, provided a certain amount of instruction in anatomy, diseases and breeding of live stock, and the scientific and practical principles of agriculture, specially adapted to young men intended for, or engaged in, Canadian farming. As this course occupies only six weeks in the depth of winter, and the instruction is free, it is to be hoped that more will avail themselves of so valuable an opportunity.

The establishment of an Agricultural Museum has been for some time in contemplation; but from one cause or other but little has yet been actually accomplished. It is much to be desired that such active measures should be adopted as will secure the speedy realization of so interesting and useful an object. A capacious hall is already provided for the purpose, which might be filled, in addition to agricultural productions, with specimens of our mechanical, manufacturing and artistic skill, in connection with the Board of Arts and Manufactures. These interests are already incorporated with those of Agriculture in this Association, and the arts and manufacturing products of the country have, for a long time, formed a most useful and attractive department of our annual Exhibitions. In this important respect, our Association exactly resembles the oldest organization of the kind in England—"The Bath and West of England Society, for the promotion of Agriculture, Manufactures and Fine Arts," whose operations and reports are widely known and appreciated. The blending of the results of our various industries in our Annual Exhibitions, greatly enlarges the sphere of their attraction and usefulness, and affords a practical illustration of the mutual connection which exists between all the great interests of a civilized and progressive people.

Nature, it is true, has adapted, in a special manner, this section of our Dominion for agricultural pursuits, and this great interest will probably continue the principal source of our wealth and prosperity for generations to come. But it should not be forgotten

that there is, perhaps, no country on the globe that possesses such magnificent water communication and power as are afforded by our numerous and extensive lakes and rivers, which constitute such a striking physical feature of the surface. The mineral resources of the vast, and at present a most unproductive tract of land, stretching north of the St. Lawrence to the shores of Lakes Huron and Superior, will in time, according to all human probability, become exceedingly rich, extending through the whole of British America to the distant shores of the Pacific. By developing their mineral resources, the agricultural capabilities of the country will, in due course, be brought out (and these are in many cases anything but insignificant), manufactures and commerce will spring up, so that what is now but an inconceivably vast wilderness, will, in time, become the scene of comfort and busy industry, and the home of a numerous and thriving population.

Fruit culture is a branch of rural economy that is beginning to receive more enlightened attention. There can no longer remain a doubt that, in sections of country bordering on the St. Lawrence and the great lakes, many of the choicer sorts of apples, pears and plums, can be successfully raised; and even the peach can be produced in favorable localities of a superior quality. The culture of grapes has of late years been rapidly extending, and experience has already decided that both our soil and climate are well adapted to the growth of this luxurious fruit in great perfection. Indeed, facts at present seem to indicate that Canada is destined to become a wine-producing country. The recent report of the Jurors on the sample of wine sent to the Paris Exhibition by the proprietors of the Clairville vineyard, is of a very encouraging character. There are awards, I understand, not yet made, or at least not announced; but from what has already transpired we may, I think, justly congratulate ourselves on the respectable position which Canada has taken in the unprecedented collection of the world's industry and skill. France will thereby occupy a proud page in the history of modern civilization, in which this magnificent event will be recorded as a characteristic epoch in the enlightened and happy reign of Napoleon the Third.

As a Canadian farmer of many years' standing, I have lamented to see, more particularly of late, an increasing disposition among our country youth to abandon the homes and pursuits of their fathers to increase the already crowded lists of trades and professions in our towns and cities. Within certain limits, a movement of this sort is right and proper; there is no reason why the sons of farmers should all follow their fathers' pursuit. But I am afraid that not only is this restless desire of change among our rural youth carried to an injurious extent, but that it arises from a radically false notion of things. Farming, I fear, is thought by many to be a comparatively inferior calling, characterized by hard, rough work, and small gains; whereas that of the merchant and professional man is regarded as much more clean and agreeable, attended by far greater profit, and altogether more desirable and respectable. It is, in great measure, to these low and erroneous views of the status and gratifications of the farmer, which are unfortunately so prevalent, that the increasing evil is to be ascribed. In a new country like ours, where many of our farms not long since had to be hewn out of the primitive forest, but little opportunity was afforded the first settlers either for mental improvement or the practice of anything approaching to systematic agriculture. At that time it was literally farming in the rough, and the same may be said, though not to a like extent, of those who commence new settlements in the present day. But there is, in most cases, a great difference between the condition of the earlier settlers of the country and that of those who now undertake the work of opening new settlements. Such have been the changes for the better in later years, by the construction of roads, the extension of commerce by means of improved facilities of inter-communication, that settlers now-a-days in the back country have comparatively few difficulties and hardships at all compared with those experienced by their predecessors.

With reference to the fact of so many of our country youth evincing an indisposition to follow agricultural pursuits, it is of importance to inquire into the causes, and how the evil may, in some measure at least, be arrested. I answer, first, we should clear away much which at present greatly mystifies the subject, by forming correct views of the proper status of farmers in a country like this, where almost every man owns the land he cultivates—a circumstance which enables him to cherish feelings of independence. Then, it is important that we should form a correct estimate of the kind and amount of knowledge which it is necessary for a farmer of the present day to acquire, that he may follow his pursuit intelligently, improvingly and profitably. In a word, agriculture is the noblest and most indepen-

dent pursuit of man, and in its onward progress invokes the aid of some half-dozen of the most important and interesting departments of natural and experimental science. If any should feel a doubt about the correctness of this statement, I would recommend them to attend the lectures given in the University and Veterinary School at Toronto; or, to study some of the many valuable treatises which have of late years issued from the press, on the science and practice of our art. I would, in all earnestness, say to parents—do everything you can to inspire your sons with a love of knowledge and of rural pursuits, the quiet and beauty, healthfulness and virtue, of country life, by encouraging them to think, read and observe. Make your homes attractive by the genial influence of parental love and care, and rational and innocent recreation; surrounding them with luscious fruits, health-giving vegetables, with a little ornamentation by the way of cultivating shrubs and flowers. What are within and around a human dwelling, exercise a silent and perpetual influence on the taste and character of the inmates, for good or evil, through all coming time.

It is by a suitable domestic and school education that our agricultural youth must be mainly prepared to follow the pursuits of their fathers, in an intelligent, improving, and profitable manner. Something more definite in the way of teaching scientific subjects in relation to agriculture might, I think, be advantageously introduced into country schools; and Agricultural Societies might aid the progress of the good work by holding meetings of their members as frequently as practicable, for mutual instruction and encouragement in the prosecution of their art. I observe, with pleasure, that Professor Buckland, in his rural addresses to the numerous Agricultural Societies in different parts of the Province, strongly urges this means of improvement, as likewise the other methods to which I have already alluded. Most earnestly is it to be hoped that such precious seed will not fall by the way side.

With reference to the present Exhibition, time will only admit of a few words. Although the number of live stock is not so large as we are accustomed to see in places more westward, it is most satisfactory and encouraging to know that in point of quality there is no deterioration. We should always bear in mind, in estimating our rate of progress, that *quality* rather than quantity is a far more important element in the calculation. The animals from Lower Canada, especially the splendid importations of Mr. Cochrane, are most welcome, and increase the attractions of this important department of the Exhibition. I regret that the display of agricultural implements, though comprising a number of excellent articles, is much smaller than on previous occasions. In roots the exhibition is undoubtedly inferior, a circumstance arising from the severe drought which has affected a large section of country, and particularly the district in which we are assembled. Making due allowance for these and other causes that have injuriously affected the present Exhibition, we have still sufficient cause to feel encouraged in promoting the progress of agricultural, manufacturing and mechanical interests, which it is the great object of this Association to foster and advance.

I will close by just observing that we meet on this occasion as an Association, for the first time, under very altered and, I trust, improved political conditions. We are no longer a series of almost isolated colonies, but a Dominion, which, humanly speaking, bids fair to embrace the whole of that immense territory vaguely known as British North America, extending across the continent from the Atlantic to the Pacific, and from the great lakes to the pole. This closer connection with the Eastern Provinces should make us feel, as members of the Agricultural Association of Ontario, a deeper interest in those of our fellow-citizens belonging to similar organizations in the Provinces of Quebec, New Brunswick and Nova Scotia. By cultivating a liberal and fraternal spirit, and reciprocating kind offices, we shall all feel that we are doing our duty faithfully and patriotically as members of a great Confederacy, forming a large integral portion of the good old British Empire, "on which the sun never sets."

CIRCULATION OF THE CANADA FARMER.—Our friends will be glad to learn that the circulation of the CANADA FARMER, so far from falling off, as we understand has been stated, is steadily increasing, and is in advance of that of last year.

PRIZE LIST.—In order to secure as much accuracy as possible, we defer the publication of the Prize List till it has been officially revised. If, in the reports already given, any omissions or errors have been made, our readers will please to make all due allowance for the difficulty of examining so large an assortment of articles in the hurry of the period, and amidst the almost impassable crowd of visitors at the Exhibition.

List of Exhibition Entries.

The following condensed list will show the number of entries for the Exhibition of the present year, and also those of last year in Toronto, and of 1863 in Kingston:

| | Kingston, 1863. | Toronto, 1866. | Kingston, 1867. |
|--|-----------------|----------------|-----------------|
| HORSES. | | | |
| Thoroughbred horses | | 22 | 2 |
| Agricultural do. | | 131 | 59 |
| Road & Carriage do. | | 161 | 214 |
| Heavy Draught do. | | 62 | 51 |
| Total | 394 | 376 | 389 |
| CATTLE. | | | |
| Durhams | | 92 | 82 |
| Devons | | 106 | 52 |
| Herefords | | 32 | 33 |
| Ayrshires | | 91 | 118 |
| Galloways | | 59 | 51 |
| Angus | | 12 | 6 |
| Grade | | 66 | 62 |
| Fat Cattle | | 28 | 37 |
| Total | 391 | 486 | 441 |
| SHEEP. | | | |
| Leicesters | | | 200 |
| Cotswold | | | 114 |
| Southdown | | | 67 |
| Shropshire | | | 47 |
| Merinos | | | 39 |
| Fat Sheep | | | 10 |
| Total | 478 | 672 | 477 |
| PIGS. | | | |
| Yorkshire | | | 29 |
| Berkshire | | | 30 |
| All other large breeds | | | 16 |
| Suffolks | | | 42 |
| Berkshires | | | 45 |
| Essex and all other large breeds | | | 22 |
| Total | 130 | 185 | 184 |
| POULTRY. | | | |
| Anyage | | | 155 |
| Chickens, &c. | | | 57 |
| Total | 192 | 376 | 212 |
| AGRICULTURAL PRODUCTIONS. | | | |
| Grains, small field seeds, hops, &c. | 500 | 462 | 470 |
| Roots, other hoed field crops, straw, &c. | 285 | 453 | 197 |
| HORTICULTURAL PRODUCTS. | | | |
| Professional list | | | 24 |
| General list | | | 216 |
| Domestic Wines | | | 6 |
| Total | 184 | 489 | 246 |
| Garden Vegetables | | 501 | 255 |
| Plants and flowers | | 154 | 192 |
| Dairy products, honey, bacon, &c. | | 107 | 145 |
| Agricultural implements, horse or other power | | 160 | 128 |
| Do. for hand use | | 121 | 122 |
| Cattle food and miscellaneous | | 5 | 11 |
| ARTS AND MANUFACTURE DEPARTMENT. | | | |
| Cabinet ware and other woods and hair manufactures | | | 61 |
| Carriages, Sleighs and parts thereof | | | 47 |
| Chemical manufactures and preparations | | | 17 |
| Drawings—Architectural & Mechanical, Engravings, Building Material and Constructions, Pottery, &c. | | | 28 |
| Fine Arts | | | 161 |
| Groceries and provisions | | | 59 |
| Ladies' Work | | | 149 |
| Ladies' Flower Hair Work, &c. | | | 69 |
| Machinery Castings, &c. | | | 60 |
| Metal Work (Miscellaneous) | | | 33 |
| Musical Instruments | | | 32 |
| Natural History | | | 9 |
| Paper, Printing, Penmanship, Bookbinding and Type | | | 4 |
| Saddle, Engine Hose, Trunk Makers' Work, &c. | | | 56 |
| Shoe and Bootmakers' Work, Leather, & Woolen, Flax and Cotton Produce | | | 39 |
| Total Arts and Manufactures | 1233 | 1838 | 954 |
| Total Entries, Kingston, 1863 | | 4,787 | |
| Total Entries, Toronto, 1866 | | 6,544 | |
| Total Entries, Kingston, 1867 | | 4,204 | |

CLOSE OF THE FRENCH EXHIBITION.—The correspondent of the *Daily News* says:—"The decree has gone forth, and is registered in the *Moniteur*, that the Universal Exhibition is to be closed on October 31 with the same inflexible punctuality which marked its opening on the day so announced—April 1, and the distribution of prizes on July 1. The building is to be pulled down and the material sold. All the gardens and annexes in the Champ de Mars are to be levelled and broken up, and the old sandy plain is to be restored to the Minister of War for purposes of drill. I am one of those who think this decision a pity. Purchasers of shrubs in the horticultural garden are informed that they must fetch away their purchases on November 1."

Toronto Veterinary School.

It will be seen from advertisement that the next session of this useful institution will be commenced November 10th. Mr. Smith has associated with him on the staff of instructors, in different branches of the science, several gentlemen of talent and reputation, whose names will appear when the list is finally made up. This school has already turned out several pupils, who, after a very strict examination, based on the practice of the Veterinary Schools of London and Edinburgh, have entered on the practice of their profession in various parts of the country; and it is an encouraging fact to the young men themselves, as well as highly complimentary to their former teachers, that they have all secured a respectable practice and are giving much satisfaction to their employers. It may not be generally known that young men engaged in, or intended for Canadian farming, are admitted free of expense to the class which meets for six weeks, commencing the 8th of January next, in which they enjoy an excellent opportunity of obtaining a considerable amount of correct and useful information on the scientific and practical principles of agriculture, and the breeding, diseases and treatment of farm animals. We are glad to hear that there is a prospect of a greater number of both classes of students in the coming session.

DAIRY FURNISHING STORE.—We would call attention to the advertisement of Messrs. Jones and Faulkner, of Utica, N. Y., which appears in our present issue. Those in want of dairy requisites will do well to send their orders to this firm, respecting which we have the highest references.

CREDIT SALE OF STOCK AND FARM IMPLEMENTS.—We direct attention to the advertisement of Mr. W. Hendrie in the present issue, notifying an extensive sale of valuable stock, produce and implements, to take place at the Brant Farm, Wellington Square, on Friday, the 11th of October.

SADDLERY AND HARNESS.—Farmers who have been in the habit of employing Mr. H. E. Smallpeice, saddler and harness maker, of Yorkville, will be glad to learn that he has removed to more extensive premises on Nelson Street, Toronto, next door to Wood's Commercial Hotel. We can speak from experience of his good workmanship and prompt attention to business.

SALE OF SHORTHORNS.—The *Scotsman* states that the celebrated herd of shorthorns belonging to the Duke of Montrose, and the largest portion of the herd belonging to Viscount Strathallan, were sold by public auction near Stirling. The celebrity which the herds submitted for sale had acquired—particularly that belonging to the Duke of Montrose—attracted a very large attendance of eminent breeders of cattle, including a number of spirited buyers. The sale was opened with the Duke of Montrose's cows and heifers, for which there was a good competition. Rosedale, the best cow in the herd, and one of the finest female shorthorns in the kingdom, excited much attention when it entered the ring, and elicited the highest encomiums of all the shorthorn breeders present. The starting price for it was 100 guineas, and the competition which followed was confined to Mr. Young, factor for Sir William Stirling-Maxwell, M.P., and the fortunate buyer, Mr. Beattie, Montreal, a native of Dumfriesshire, who secured her for 235. She is a magnificent animal, has distinguished herself in the ranks of public competition, and comes to Canada.

MISCELLANEOUS MACHINERY.—A trial, to test the comparative speed of the old grain-cradle, against the reaping machine, for a wager of \$10, came off in a field of oats, on the farm of Mr. Daniel Rose, on the 8th concession, Westminster, on Wednesday, the 28th ult. The challenge was given by Richard Jackson, who has long been noted as one of the best cradlers in these parts, that with another cradler and himself, and two men to bind after them, he would cut and bind two acres of grain as quick and as well as any other four men could with the help of a reaping-machine and a span of horses. The challenge was accepted by Mr. Donald McMillan, and the match came off as stated above. This match excited a lively interest, and was witnessed by a large majority of the farmers in the neighborhood, as it was known that the hands on both sides were amongst the best that could be picked up in this township. The result was, the machine men cut and bound the two acres in one hour and twenty-five minutes, while the cradlers took one hour and forty-two, thus making seventeen minutes in favor of the machine. The machine actually cut the two acres in fifty minutes, the balance of the time being occupied in finishing the binding. The oats were a heavy crop, over ripe, and partly down; very tough cutting for the cradlers, or they would have finished in much less time. —*Cor. London Free Press.*



Horticultural Products at the Provincial Exhibition.

FRUIT.

In consequence of the long season of drought by which so many parts of the country have suffered, it was to be feared that there would be only a poor display of fruit at the present Exhibition; but, notwithstanding this drawback, the show in this department was highly creditable. Much of the success attained was due, however, to the contributions of those who pursue this branch of industry in the fruit-growing district *par excellence* of this country, and who have before contributed largely in Toronto and Hamilton to the magnificent display of Canadian fruit which has raised and established the reputation of the Province in this respect.

The horticultural products were displayed in the upper story of a large building set apart for them, and the various agricultural products, together with dairy produce and implements connected therewith.

The kind of fruit which, this year especially, was both most excellent and most numerously represented, was the different varieties of apples. Pears, with some few but splendid exceptions, were scarcely up to last year's mark; and peaches were, on the whole, both fewer and inferior. Plums were fairly represented, and of grapes there was a good show, though we missed some contributors to last year's Exhibition.

Among the professional nurserymen, Mr. George Leslie, of Toronto, as usual, had a splendid collection of fruits, consisting of nearly every variety in season, and some even almost past their season—such as cherries, raspberries and currants. His show of apples, pears and grapes was especially fine.

Mr. J. P. Williams, of Bloomfield, also exhibited a very excellent collection, among which were no less than 130 varieties of apples and 32 varieties of pears. He had also in bottles, a kind which he has found especially adapted for preserving and canning, and which he terms, from its peculiarly excellent flavor, the peach apple. It is a seedling, and small, but much esteemed by those who have tried it in the manner recommended.

Besides the collection of fruits of all sorts just mentioned, Mr. George Leslie and Mr. Williams had each a beautiful display of special fruits entered under other heads, such as pears, plums and grapes.

Mr. Fleming, of Toronto, exhibited a very fine choice fruits, principally grapes, both open-air and grown under glass.

In the amateur list, there were many contributions of great merit. Most of the exhibitors in this class have won laurels before, and their names are familiar in the records of former exhibitions.

Mr. J. H. Brown, of Niagara, took the first prize for the best twenty varieties of apples, and the second prize for the best ten varieties; also the first prize for the best twelve winter dessert apples (the Montreal Pomme-grise), the first for the best twelve fall cooking apples consisting of the fall Pippin; the first prize for the best four varieties of dessert apples, and a similar distinction for the best four varieties of cooking apples. The first prize was also awarded to him for a magnificent dish of pears, single variety (Flemish Beauty).

Mr. G. Z. Rykert, of St. Catharines, also again distinguished himself in this department, having gained the third prize for the best twenty varieties of apples; the first for the best six varieties of pears; besides other successes.

Mr. R. B. Warden, of Picton, carried off the second prize for the best twenty varieties of apples; the third for the best ten; the third for a collection of twelve winter cooking-apples, and also for the same number of a fall variety (the Alexander), besides other premiums.

Among the other successful exhibitors were Messrs. G. J. Miller, of Virgil; A. Shaw, of Kingston; J. Daly, of Kingston; A. W. Taylor, of Barton; A. F. Currie, of Niagara; J. H. Busch, of Wolfe Island, and others, for the particulars of whose successes we must refer the reader to the Prize List. H. Carduff, of Montreal, exhibited some very magnificent apples, of splendid size (variety Alexander), but as they were not labelled with any name, they were ruled out of competition.

Peaches, some of them very beautiful in appearance, were shown by Messrs. A. F. Currie, of Niagara; H. J. Brown, of Niagara; J. Kilburn, of Beamsville; G. J. Miller, and others. Some good samples of plums were also exhibited by Messrs. Shaw, Kingston; J. Benham, Guelph; T. Watson, Kingston; J. D. Humphrey, of Toronto.

The show of Grapes, if not quite equal to last year's as a whole, possessed some special features of excellence, and was highly creditable. Some very fine samples, grown under glass, were shown by Mr. James Fraser, of Kingston, who carried off several prizes, and furnished altogether a very admirable collection. In the same class, and more or less successful, were Messrs. J. Wright, of Kingston, Rykert, Gutthrie, Shroeder, Hirshfelder, and Kilburn, of Beamsville. Mr. Kilburn's most remarkable display, however, was a large collection of forty-six varieties of grapes grown out of doors, consisting amongst other sorts of the Ontario grape—a very large kind, some of the specimens measuring three inches in circumference—the Delaware, Concord, Iona, Israeli, Rogers' Hybrids and the Clinton. One variety of Rogers' Hybrids, No. 3, could hardly be surpassed in flavor by any grown in the hot-house. The whole collection was extremely creditable, and obtained the distinction of a first prize. The same exhibitor showed some good samples of wine, sweet, dry, and sparkling, and divided the honors of this class with W. W. Kitchen, of Grimsby.

GARDEN VEGETABLES.

In the same room with the fruits were arranged the next class of horticultural products, namely, garden vegetables—these occupying tables down the side of the room, while the former were displayed along the centre. This collection, though deficient numerically, was generally of very fair quality, and contained some superior specimens of horticultural skill and success. Many of the names which have been again honorably distinguished are familiar as successful competitors in former years; and to these were added some new and local exhibitors. Among the latter was the Rev. Dr. Williamson, who exhibited some very fine red beets and long red carrots, for the latter of which he obtained the 3rd prize; the other prizes for this vegetable having been awarded to G. Croft, of Pittsburg, and Mr. Benham, of Guelph. Without particularizing the awards of each, it may be mentioned that the principal contributors in this class were, besides those already named, Messrs. J. J. Nicholl, E. Scott, S. N. Watts, H. McCauley, C. George, and T. Briggs, of Kingston; A. W. Taylor, of Barton; E. Barden, of Portsmouth; J. D. Humphrey, and R. Gutthrie, of Toronto; G. Z. Rykert, of Grantham; J. Gardiner, of Elizabethtown, and G. J. Miller, of Virgil. Among the vegetables which seemed most deficient was the celery, which this year made a very poor show. Cauliflower and brocoli were also but slenderly represented. Some of the roots were very good. There were also some remarkably fine onions, a good display of tomatoes, and a very handsome show of capsicums, particularly those exhibited by Mr. Rykert. Mr. Gutthrie, of the Toronto Lunatic Asylum, also deserves special mention, both for his success in many of the single varieties and for having furnished the best general collection of vegetables of all sorts. The pursuit of horticulture has, during the past dry season, been attended with peculiar difficulty, and the more praise is therefore due to these exhibitors for the creditable display they have brought together.

FLOWERS.

For a Provincial Exhibition this class must be pronounced a failure. The display was indeed very meagre, and confined to a small number of exhibitors. J. M. Hirschfelder, of Toronto, had a small collection of greenhouse plants, for which a prize was awarded; also, some good petunias. R. Gutthrie exhibited an elegant floral design in the form of a decorated vase. Mr. G. Leslie had a good collection of dahlias, which took a first prize. J. J. Nicholl was a successful exhibitor of fuchsias, pansies, verbenas, double zinnias and asters. Mr. Flanagan, of Kingston, had also some very beautiful dahlias, asters, and petunias, and extra prizes were awarded to him for a fine specimen of *flox drummondii* and a beautiful collection of gladioli. Ford and Hay, of Flam-boro', and Stacy, of Kingston, were also amongst the contributors to this department, which, it is to be hoped, will be more numerous and extensively represented in future Exhibitions.

In the same room was a solitary exhibitor, J. J. Whitehead, Kingston, of ornamental rustic work. The few specimens shown of this pleasing art, especially an elegant flower basket, were extremely creditable, and would have won distinction in a much larger competition.

Canadian Fruit District—Reply.

To the Editor of THE CANADA FARMER:

SIR,—In reply to a letter in the CANADA FARMER of the 16th inst, I have much pleasure in acceding to your correspondent's request, that some information be given on the subject of Canadian fruit-growing, as affected favorably or the contrary by the soil and climate of various parts of the Province. I have been a long time in the country, and being much interested in the horticultural products of various localities, I have been specially observant in reference thereto. It is unnecessary to compare one portion of the country with another, or to state the several advantages which each portion enjoys. Confining my remarks to the subject of fruit culture, I may truly say that there is but one part of Canada where all the horticultural productions of temperate climates can be brought to perfection. These productions consist of the grape, peach, and the hardier fruits. That locality is situated south of a straight line between Port Talbot on Lake Erie and the forks of the St. Clair river. It is, in fact, the south-western part of that peninsula which is surrounded by three of the five great lakes. To limit the tract still further, there is a region situated between Lake Erie and the Ridge which runs through the Southern townships of the county of Kent, which I do not hesitate to say will ultimately be the garden of this country; and not only that, but perhaps the most favored spot on the continent of America for the production of the fruits which I have above mentioned.

The soil is a black rich loam, formerly covered by heavy forests of maple and beech, the fir tribe being there unknown. The advantages of this tract of country are many. It is not so apt to suffer from drought as are other portions of Canada, and it enjoys an immunity from late frosts in the spring and those early frosts in September which too often destroy the hopes of a whole summer in one night. This is the land of that superb parasitical plant the *Bignonia Grandiflora*, and the *Catalpa* and *Althea frutex* may now be seen there in all their autumn beauty. The pear succeeds well all over the counties of Essex and Kent, attaining a height in many instances of sixty feet. Many of the trees planted by the early French settlers are still in full bearing.

The apple often attains such a size as to render it difficult to recognize the particular variety. The Spitzenburg, particularly, being much larger than in more easterly districts. But it is for the cultivation of the grape and peach that the limited locality above mentioned is peculiarly suited.

Where vines require winter protection the cultivation of the grape is troublesome and expensive, and in fact it cannot be grown extensively. No such protection seems here needed, and ordinary pruning is all that seems necessary.

The Isabella, a poor grape when compared with the Delaware and other recent introductions, is almost the only grape cultivated, but this arises from want of knowledge. The culture of an earlier and better variety of fruit would be attended with much profit.

Of cereals it is unnecessary to speak, for with such a soil and climate as above described the hopes of the most ambitious husbandman, with ordinary industry and intelligence, cannot fail to be realized.

Indian corn is a staple crop, and no better test of a good climate and soil is necessary.

I trust that the above may be useful to your correspondent "M." and other readers interested in the important work of Canadian fruit culture.

Toronto, Sept. 1867.

S. W. G.

The Household.

Domestic Machinery at the Exhibition.

SPINNING MACHINES.

THE number of these articles on the ground afforded proof that the interests of the farmer's family are being looked to in the house as well as his own in the field. Four or five of these handy articles were shown, each displaying considerable ingenuity, and all marked by many servicable qualities. In addition to the really clever device of Mr. Lazier, of Belleville, in which twelve threads are spun at once, the well-known machine of Mr. Dell, of Strathroy, Middlesex, was observed. Mr. B. Wheeler, of Lough-boro', had also a wooden wheel reel on exhibition, of no particular prominence as a novelty. W. Glendillon's article of the same class was, perhaps, better,

and displayed some qualities which are more attractive to the "canny" housewife actually interested.

Mr. J. H. Rowe, of King, exhibited a spinning wheel which he has been pleased to term the "Champion." And indeed it would appear from the merits which this article combines that its name is not wrongly applied, for in several instances, when put in competition with other wheels, not only did it accomplish more work, but we are assured that the work was more satisfactorily performed. Testimony to this effect was furnished by several parties who can speak practically as to its worth and labour-saving qualities.

The "Champion" took an extra prize in Class 44, Section 27, and was besides highly recommended by the judges.

SEWING MACHINES.

We all remember how demonstrative washing machine men, showing their wares at the Provincial Exhibition, used to be. Their prominence has now, however, waned in deference to the sewing machine exhibitors, who bid fair even to outstrip their antitypes in the ability to attract the attention of the public. But the willing response on the part of the latter demonstrates the fact that a genuine interest is felt in their wares, and that every improvement, however out of the way it may be, is watched intently, and its merits intelligently discussed. First of all, with an effort to do all the gentlemen exhibiting the credit they deserve, we would remark that the assortment is a good one, and displays many of the latest qualities of this family friend.

Messrs. Grout & Co.'s family sewing machine is, with due deference to the others, a model article. They justly took the prize as a family machine, with also a diploma. One peculiarity in their construction is that they work either by hand or treadle, while arranged either for light or heavy sewing. It is in this particular that sewing machines strive to excel, and Messrs. Grout & Co. have succeeded well in their efforts to secure this desideratum. The simplicity of the hemmer is also another valuable consideration in the machine. They are manufactured at St. Catharines, and sold wholesale in Toronto.

Mr. Norris Black exhibited the Singer button hole machine, a fine labor-saving article, doing work of the finest description, without hesitancy or interruption. The object of this machine being once stated, its advantages will be equally soon apparent. Mr. Black also shows Singer's family and manufacturing machines, and an embroidery machine which, by taking off two branches, makes a valuable family machine. The No. 2 Singer, for fine labor work, has a device which carries the shuttle in a basket, obviating friction; while the machine uses, like the last named, a very short needle. Many other qualities of a miscellaneous kind are among those claimed for these machines.

Mr. J. A. Davis, of Watertown, N. Y., had a number of his patent machines, the "Davis Shuttle," on the ground. The chief peculiarity claimed for this machine is its giving a greater range of work than the ordinary machine, and its adaptability to all kinds of needlework.

Among the family sewing machines shown, was also a very neat article exhibited by Messrs. C. Irwin & Co., of Belleville. It is well adapted for heavy and light work, and compares so well with the others as to make a distinction of merit difficult. In this class, theirs and the Messrs. Grout's machine competed against the Wheeler & Wilson prize Paris articles, and with great credit; Messrs. Grout & Co.'s machine, on the ground, walked through a piece of shingle and a fine piece of muslin, without change of needle, the best proof of its "combination" qualities.

G. A. Walton, of Ottawa, agent for the Wheeler & Wilson and Howe machines in Canada, showed the family machine of the former, with the button-hole and embroidery attachment, and also the Howe machine for heavy work. Both present a fine appearance, and being awarded such high encomiums at Paris, are doubtless excellent.

The British American Manufacturing Company, of Paris, were also the exhibitors of a lock stitch shuttle machine for family sewing, for which they claim the merits of simplicity of construction with stout and compact workmanship.

"I can't find bread for my family," said a lazy fellow in company. "Nor I," replied an industrious miller; "I'm obliged to work for it."

RECREATIONS OF A PHILOSOPHER.—Professor Doremus once placed a linen handkerchief in the explosive condition of gun cotton, and threw it into the wash. Bridget washed, dried, and sprinkled it ready for ironing, without a suspicion of its character. The moment she placed the hot iron upon it, the handkerchief vanished into thin air, nearly frightening the poor girl out of her senses. Had this occurred an age ago, the professor would have passed for a "limb of Satan."—*Scientific American.*

TO PRESERVE CUT FLOWERS.—In order to keep cut flowers from fading, care should be taken not to put too many in the glass or vase, and to remove the water every morning, picking off every decayed leaf as soon as it appears, and cutting off the ends of the stems as soon as they show any symptom of decay. If a pinch of nitrate of soda is put into the vessel every time the water is changed, the flowers will retain their beauty for a fortnight or more. Common saltpetre will have nearly the same effect.—*Western Rural.*

Advertisements.

TORONTO VETERINARY SCHOOL!

(Under the Patronage of the Board of Agriculture of Upper Canada.)

LECTURES to second and third years' students will commence

On **NOVEMBER 10th, 1867.**

SUBJECTS—Anatomical Demonstrations and Dissections. Diseases of the Farm Animals.

Lectures on Materia Medica, Animal and Vegetable Physiology, Chemistry, Breeding and Management of Live Stock, to students of the first year, will commence

On **JANUARY 8th, 1868.**

Also, a course of Lectures on the Principles of Agriculture, scientific and practical, specially adapted to young farmers, FREE.

Prospectuses and particulars can be obtained from A. Smith, V.S., in relation to veterinary subjects; or, Professor Buckland, University College, on those relating to agriculture.

H. C. THOMSON,
Secretary Board of Agriculture.

Board of Agriculture, }
Toronto, Sept. 21. } v4-19-2t

TO CHEESE FACTORIES!

THE ONTARIO PACKING HOUSE

IS PREPARED TO MAKE

LIBERAL CASH ADVANCES ON CHEESE

Consigned for sale to JOHN T. DAVIES, Liverpool.
Apply for further information to JOHN T. DAVIES,
Ontario Packing House, Hamilton.

Sept. 28, 1867. v4-19-2t

SUMMERS' GRAIN CHOPPING MILL

THIS useful mill is a most efficient invention for chopping grain to feed to stock. It is strongly made, works easily and rapidly, and will be found to effect a saving of at least one-third in feed. Price \$50.

Machinists wanted in different parts of the Province to manufacture these mills. Patent rights for sale throughout Canada.

All letters to be sent [prepaid] to Pine Grove Post Office, to
WILLIAM SUMMERS, Patentee,
v4-19-2t* Village of Woodbridge.

JONES & FAULKNER,

(Late J. Jones & Co.)

Dairyman's Furnishing Store!

—AND—
DEALERS IN BUTTER AND CHEESE,

No. 141 Genesee Street, Utica, N. Y.

DAIRY necessities of every description always on hand, particularly **Pure Anatto**, an article in much request among dairymen.

Special attention given to Canadian orders v4-19-1f

FALL PLANTING.

TORONTO NURSERIES!

(See Kingston Prize List.)

THE attention of purchasers is directed to the very fine stock of all kinds of

Fruit and Ornamental Trees, Hardy Grape Vines, Currants, Gooseberries, Asparagus Plants, Rhubarb, &c., &c.

SUITABLE TO THIS CLIMATE.

Packing done in the best manner to ensure carriage to any part of the Dominion. Priced Catalogues on application.

N. B.—Purchasers have first choice of stock by procuring in the Fall. GEO. LESLIE, Leslie P.O.

Toronto Nurseries, Sept. 1867.

v4-19-1t

CREDIT SALE.

WILL BE SOLD BY AUCTION

AT THE

Brant Farm, Wellington Square,

On **FRIDAY, 11th OCTOBER, 1867,**

300 THOROUGH-BRED LEICESTER AND COTSWOLD SHEEP, consisting of Rams, Ewes, and Ewe Lambs. Bred from the best stock, including many prize-takers.

Also, twelve superior grade Cows, Cheshire Figs, and a number of useful Farm and Driving Horses and Colts. Implements, Roots, Hay, Straw, &c.

Sold on account of the owner leaving the farm.

WM. HENDRIE.

Wellington Square, 24th Sept., 1867.

v4-19-1t

BRADLEY'S PATENT CULTIVATOR.

THIS IMPROVED CULTIVATOR, suitable for any kind of land, is specially adapted for uneven ground, which it will cultivate to a regular depth throughout. It is cheap, simple and durable, and has given entire satisfaction wherever it has been tried. For particulars and the right to manufacture apply to the Patentee.

v4-17-3t*

W. H. BRADLEY,
Centreton P.O., Haldimand

MILLER'S

INFALLIBLE



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 35c., 70c., and \$1, with full directions on each package. A 35c. box will clean twenty sheep.

167 King Street East.

HUGH MILLER & Co.,
Medical Hall, Toronto.

v4-14-1f

COE'S SUPER-PHOSPHATE OF LIME.

ONE HUNDRED TONS

For Sale on Liberal Terms to Close Consignment.

Apply to
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PHILIP BROWNE & Co., Brokers,
67 Yonge Street, Toronto.

ONTARIO POULTRY SHOW,

TO BE HELD IN THE

AGRICULTURAL HALL, TORONTO,

November 6th and 7th, 1867.

ENTRIES CLOSE October 7th, 1867. For particulars apply to the Honorary Secretary,
v4-19-1t HON.-SEC'Y., Box 1070., Toronto.

To NURSERYMEN and DEALERS.

PLUM TREES

WHOLESALE AT THE TORONTO NURSERIES.

Sept. 1867.

v4-19-1t

GEO. LESLIE, Leslie P.O.

MONTREAL VETERINARY SCHOOL.

IN CONNECTION WITH THE

MEDICAL FACULTY OF MCGILL UNIVERSITY.

UNDER THE PATRONAGE OF

The Board of Agriculture, Province of Quebec.

LECTURES

COMMENCE ON WEDNESDAY, 20th NOVEMBER, when the INTRODUCTORY LECTURE will be delivered.

For Prospectus apply to

D. McEACHRAN, Veterinary Surgeon, Montreal.
 or to
 GEO. LECLERC, Esq., Secy. Board of Agriculture, L.C., Montreal.

HIGHLY IMPORTANT AND UNRESERVED SALE OF PURE BRED STOCK.

MORETON LODGE, GUELPH, Ontario, Dominion of Canada.

ANNUAL SALE.

MR. W. S. G. KNOWLES begs to announce that he has received instructions from FREDERICK WM. STONE, to offer for sale without reserve, at Moreton Lodge, Guelph,

ON WEDNESDAY, OCTOBER 16th, 1867,

Twenty-five very SUPERIOR PURE BRED SHORT-HORNED and HEREFORD CATTLE, male and female; upwards of one hundred fine COTSWOLD and SOUTHDOWN SHEEP—rams, ewes, and lambs of superior size, wool and quality; together with a number of fine Berkshire pigs, Aylesbury ducks, and Dorking fowls, all of which are in a healthy breeding condition, and well worth the notice of Breeders of full-blooded Stock.

Catalogues, with full particulars, will be ready for issue on the 23rd of September, and may be had on application to Mr. Knowles and Mr. Stone, Guelph, or Mr. Henry Arkell.

Moreton Lodge, Guelph, Sept., 1867. v4-18-2t

500 STOCKS OF BEES WANTED!

TO any person sending to Whitby Station a good stock of bees free of charge, safe arrival guaranteed, I will in return send free of charge, one of my First Prize Double-boarded Bee-hives, including right to make. Price \$6. I will also take in exchange for Territory, good Stocks of Bees or a good Horse and Buggy, and will not refuse Money.

ITALIAN STOCKS.

Having received all the orders for Italian Stocks that I am able to fill without extra expense, the price after this date will be as follows: In the Single-boarded hive, including right to make, \$18. In the Double-boarded hive, including the same, \$20.

ITALIAN QUEENS.

My Italian Queen, imported from Lake Maggiore, Italy, has arrived. She is a large, fine queen. breeding beautiful light coloured queens, even to the third generation.

N.B.—This is the only queen in Canada imported from Italy, Persons who desire to secure queens bred from her this season, would do well to send in their orders at once. Price of queens bred from her, and ordered to be shipped in July, \$7; after that date, \$5. Queens bred from last year's importations and guaranteed pure, \$5. Orders for Stocks, Queens, Hives, Books, &c., will receive prompt and careful attention, addressed to

J. H. THOMAS, Apiarian,
 Brooklin, C. W.

v4-12-1f

CIDER MILLS.

No Fruit Grower should be without one of

H. Sells' New Patent Cider Mills.

By a simple process it cuts the apples in pieces, and forces them on two fluted revolving rollers, adjustable with set screws, which crushes them perfectly fine. Also, a new discharge; so that as fast as the apples are made fine, the rollers are relieved, thus greatly reducing the labour of driving the machine. This mill never clogs, and is not likely to get out of order; is capable of making five or six bbls. of cider per day, worked by hand, and more if driven by power. It will grind the pumice a second time, which makes a saving of one-third of the cider with all small presses. Mill and Press complete, with two curbs, weighs 300 lbs.

PRICE \$30 at our Shop in Vienna.

All orders will meet prompt attention. Agents wanted all over the Dominion to sell.

Address, H. SELLS,
 Vienna, Ontario.

August 28th, 1867.

v4-18-4t.

Markets.

Toronto Markets.

"CANADA FARMER" Office, Oct. 1st, 1867.

DURING the past week there has been a lull in the produce market; the decline in barley in the United States markets is stopping trade in that staple to a great extent here. There being little else to operate in at present, dealers have not been as active this week as last.

Flour—Since our last report there has been a fair amount of business transacted in flour. Early in the week the market was very dull, and No. 1 super was difficult of sale at \$6.60. Yesterday, however, an improved feeling was manifest, and, in sympathy with Eastern markets, prices slightly advanced. A further advance took place to-day, and the week closes with No. 1 super in good demand at advanced prices, \$6.85 being freely paid for good brands. The following are the sales of the week:—100 bbls No. 1 super at a point west at \$6.50; 100 bbls. do at \$6.55, at Weston; 200 bbls do at \$6.60; 300 bbls do at \$6.65; 100 bbls do at \$6.70; 100 bbls do at \$6.75; 100 bbls do at \$6.85 f o b; 100 bbls do at \$6.85 f o b.

Wheat—The dullness which characterized the market last week has given way to a better feeling, and both spring and fall are now in good demand. Prices have advanced during the week fully 3c for spring, and 4c for fall, and the tendency at the close of Change to-day was decidedly upward. The following are the sales of the week:—2 cars spring at \$1.42; 1 car do at \$1.42; 1,400 bushels on p. t.; 700 bushels do at \$1.41, in store; 1 car do at \$1.42; 1,325 bushels do at \$1.44 f o b; 3 cars do at \$1.41 in store; 1 car do at \$1.42; 1 car do at \$1.43; 1 car fall at \$1.48; 1 car do at \$1.48; 1 car do at \$1.51; 1 car do at \$1.52 on the street market. The receipts have been light. Prices have remained steady at \$1.40 to \$1.42 for spring, and \$1.48 to \$1.50 for fall.

Oats—No receipts by cars, and very little offering by farmers' waggons. Prices during the week have advanced, the demand being considerable, and the supply very light. From 48c to 50c would now be paid for good loads on the street market.

Barley—The market since our last report has received a check, a considerable decline having taken place in New York and Oswego, which recoiled upon this market. Car lots are fully 5c to 7c lower than last week, and the tendency is still downward. The receipts by cars during the week have been 63,000 bush; cargo lots since the market declined have been almost unsaleable, and car lots have sold with difficulty even at the reduced rates. For the best samples not more than 70c to 72½c could have been procured to-day in car lots. A sale of 4 cars was made at the latter figure. The receipts on the street have greatly fallen off. On no day during the week have more than from 15,000 to 20,000 bushels been brought in by farmers' waggons, and on several days the receipts did not exceed 8,000 bushels. Street prices have declined fully 5c since our last report—ranging now from 72c to 74c in exceptional cases. The following are the sales of the week:—1 car at 74c, 1 car at 75c, 1 car at 75½c in store, 4 cars at 75½c in store, 1 car at 72c on track, 1 car at 73c, 3 cars at 74c f. o. b., 1,000 bushels at 73c f. o. b.; 4 cars at 73c f. o. b.; 10,000 bushels at 74c in store, 1 car at 72c, 6 cars at 72½c.

Peas—The only sale reported since our last return is that of a car at 76c early in the week. Since then there have been no car lots offering, and transactions have been confined to the street market, where prices have slightly advanced, ranging now from 76c to 79c, with moderate receipts.

Oatmeal—Only a retail trade doing.

Pork—The market is without change. No sales to report. The nominal prices are:—Mess, \$18.50 to \$19. Prime mess, \$15 to \$15.50.

Bacon—The season for old being about over, operations are confined to small sales. Ordinary cut sells at 8c; Cumberland cut, 9c.

Cut Meats—All kinds favour the buyer. Hams and rolls are quiet. The current rate for smoked is 11c; shoulders, 7c to 8c.

Butter—The market is improved. Purchases have been prompted by speculation, which has caused more activity. Prices for bright yellow range from 12c to 13c. Mixed store-packed difficult to sell at from 11c to 11½c.

Cheese—In better request; for shipping lots, 9c; for city trade, 10c.

Lard—Out of the market.

Eggs—In fair demand for shipping at from 11c to 12c.

Hay and Straw—Hay, \$12 to \$14.50. Straw, \$8 to \$10.

Hops—In fair demand, and good supply; selling at from 35c to 50c, according to quality.

Potatoes—Selling on the market at from 60c to 65c.

Dressed Hogs—Selling on the street at from \$4.50 to \$5 per 100 lbs dressed weight.

Freights—Unchanged. Grain to Oswego, 3c, U. S. currency, with a considerable number of vessels offering. Grain to Montreal, 7c. Flour to Montreal, 20c.

Hides and Skins—There is no change to note; prices remain unchanged. Green butchers' hides buying at 7½c. Green calf-skins, 12½c to 15c. Woolskins, at \$1.60 to \$2. Murrain hides, 5½c to 6c. No. 1 inspected hides selling at 8½c; No. 2 inspected at from 7½c to 7¾c.

THE CATTLE MARKET.

There have been a great number of cattle offering during the past week, but the most part of inferior quality. Good first-class cattle have been scarce and in demand. There is nothing new to note in the condition of the market; prices remain without material change.

The following are the quotations current per 100 lbs dressed weight:—1st class cattle, \$7 to \$7.25; 2nd class cattle, \$6 to \$6.25; inferior, \$5.50 to \$6. Calves have been in moderate supply with moderate demand, and have sold at from \$4 to \$7 each. Sheep have been in moderate supply, and have sold at from \$4 to \$6 each. 1st class, \$5 to \$6 each; 2nd class, \$4 to \$5 each, inferior, \$3 to \$4 each. Lambs have been in plentiful supply, selling at \$2.50 each.

Montreal Markets.—Oct. 1.—Flour—Superior extra, \$8 to \$8.25; extra, \$7.50 to \$7.60; fancy, \$7.20 to \$7.30; Wolf Brand Canal superfine, \$7.25; superfine No. 1 Canada wheat, \$7.20 to \$7.40; superfine No. 1 Western wheat, \$7.22½ to \$7.25; superfine No. 2 Western wheat, \$6.85 to \$6.90; bag flour, \$3.50 to \$3.60. Wheat—Canada Fall, \$1.55 to \$1.60; Spring, \$1.54 to \$1.58; Western, \$1.52½ to \$1.57½. Oats—Per 32 lbs, 38c to 39c. Barley—Per 48 lbs, 70c to 72c. Butter—Dairy, 13c to 15c; store-packed, 12c to 13c. Ashes—Pots, \$5.80 to \$5.85; pearls, \$6.50 to \$6.55. Pork—Mess \$20.50 to \$21; prime mess, \$15.75 to \$16; prime, \$14.75 to \$15. Peas—95c to 97½c. Rye Flour—\$4.50.

New York Markets.—Flour—10c to 15c better; receipts, 31,716 barrels; sales, 11,000 barrels, at \$8.65 to \$9.40 for superfine State and Western; \$10.10 to \$10.90 for common to choice extra state; \$10.15 to \$13.50 for common to choice extra Western. Rye Flour—Firm at \$6.75 to \$8.10. Wheat—Excited; 3c to 5c better; receipts, 31,786 bushels; sales, 120,000 bushels, at \$2.25 to \$2.30 for No. 2 spring, to arrive; \$2.22 to \$2.35 for No. 1 do, to arrive; \$2.38 to \$2.39 for No. 1 do, on the spot; \$2.75 for amber Michigan in store; \$2.75 for White Michigan. Rye—Quiet. Corn—1c to 1½c better; receipts, 16,210 bushels; sales, 87,000 bushels at \$1.30 to \$1.33 for mixed Western. Barley—Quiet. Oats—Opened heavy, closed more steadily; receipts, 29,590 bushels; sales, 46,000 bushels at 72c to 74c for Ohio and Chicago. Pork—Closed heavy at \$23.87 to \$24. Lard—Firm at 14½c to 15c.

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