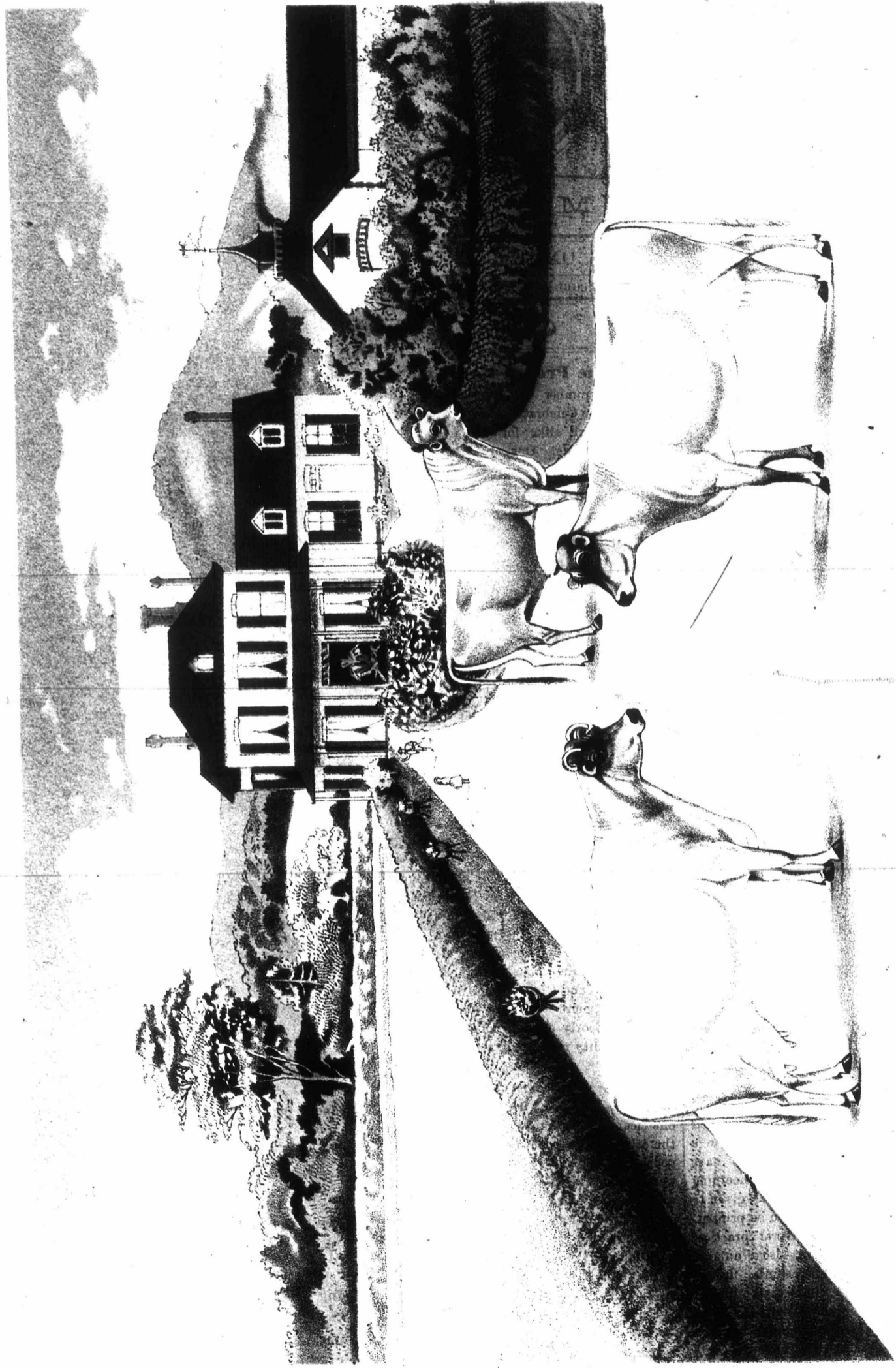


*Supplement to the Farmers Advocate London, Ont.*



J. P. HUNT.

THE LONDON PTG. & LITHO. CO.

THALEY 14299 A. J. C. C.

COUNT HUGO OF ST. ANNES 23613 A. J. C. C.

RUFALETTA 42131 A. J. C. C.

Residence and Group of Jerseys. The property of WM. JOHNSON, Belmonte, Sweetsburg, P.Q.



# FARMER'S ADVOCATE

PERSEVERE AND SUCCEED.

AND HOME MAGAZINE.  
FOUNDED 1866.

VOL. XXV.

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Whole No. 297.

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## THE FARMER'S ADVOCATE & HOME MAGAZINE

WM. WELD, PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED  
IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the first of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

**Terms of Subscription**—\$1.00 per year in advance; \$1.25 if in arrears; single copies, 10c. each. New subscriptions can commence with any month.

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### Editorial Notes.

During this month a great many farmers will buy stock rams. Where only a few ewes are kept a large strong lamb will answer their purpose very well, but where the flock numbers twenty-five or upwards, a yearling or two-year-old sheep is to be preferred. Before selecting breeding rams carefully read the article on page 279 entitled Errors in Sheep Husbandry, by Mr. John Campbell.

It is our desire that every valuable breed of live stock shall have a fair proportion of space in our columns. It is very desirable that practical breeders honestly set forth the merits of their favorites, frankly giving their experience in a concise way. During the past year we have collected much valuable information concerning various breeds, much of which we have given to our readers, and much yet remains to be printed. In this issue will be found several practical letters written by pony breeders, also a number written by Ayrshire breeders; similar letters will be published in the immediate future. Those on Ayrshires should have appeared some months ago, but were laid by in order to make room for Mr. Rodden's article, which the Ayrshire breeders of Eastern Canada were very anxious should appear, as it gave many important facts concerning Ayrshire cattle.

### Editorial.

#### The Proven Horse Fork.

In this number will be found the advertisement of the Celebrated Proven Horse Fork and Sling—useful alike for using in the barn or stacking outside. One of our staff has had one of these appliances in use for several years. It has given good satisfaction when used either in hay, peas loose grain or sheaves, handling one quite as well as another, and withal it is not excessively expensive. It is a very economical labor-saving device, thus reducing the cost of producing farm commodities, and relieving farmers and their helps of a great deal of very hard work.

#### Cleaning Grain.

Cleaning grain is a simple process but it is a very important one. Not more than one farmer in one hundred does it properly. The majority of the grain sold on the market contains the greater part of the small grains or tailings and more or less dross of all sorts. This mode of selling grain is not profitable to the farmer; it must be bought for a less price when not clean, and is also docked in weight either with or without the knowledge of the seller. Small grain, if ground, makes good stock food and possesses some value when fed at home; in fact, it is much more valuable to the farmer than to the grain buyer. When sold, mixed with good grain, it is generally entirely lost to the grower or miller. A farmer who has the reputation of putting only clean, good grain on the market, can always sell more readily and obtain from two to five cents per bushel more than the man who sells his grain in a poorly cleaned condition, though the general quality may be equal under similar conditions.

Last year a case came under my notice. Two farmers had for sale 1,000 bushels of barley each; one cleaned his grain well and sold by sample, the other used a poor fanning mill and cleaned poorly. Each sold to the same man. Each lot was the same weight per bushel, and the color was also equal when cleaned alike, yet the first man sold more readily and received five cents per bushel more for his entire crop than the second. Each fanned their grain, but one used a good fanning mill the other a very poor one. Such cases as these are repeated over and over every day, and our farmers lose thousands every year thereby. Seed grain especially should be carefully selected and well cleaned. Crops of all sorts can be increased by so doing.

We have just received a private letter from Mr. Manson Campbell, of Chatham, Ont., who is

manufacturing a capital mill, one of which we are using. In his letter he says he is making and selling twenty mills per day, and that his output this season will exceed 4,000 mills and 2,000 baggers. These facts speak volumes concerning the value of Mr. Campbell's mills. The bagger which is attached to each mill, when so ordered, is a splendid device and should be used by every farmer who grows grain for market.

#### About Our Advertisers.

While no journal can undertake to positively guarantee all its advertising patrons as absolutely without a flaw, we can say that our advertisers are of the very best class, and very many, probably nine-tenths of them, are personally known to us as thoroughly reliable business men. We refuse many hundreds of dollars worth of advertisements every year, simply because we believe their insertion would be detrimental to the best interests of our readers. We request our readers, as a matter of justice to us, to state, when writing our advertisers, that they saw their advertisement in the FARMER'S ADVOCATE. We would also request our readers to report to us any shortcomings of any advertiser with whom they may have had dealings, and if, upon investigation, "crookedness" is found to exist, the advertisement will be discontinued at once. We are determined that no advertisement appearing in our columns shall, so far as it is in our power to prevent it, mislead our readers. On the other hand, we desire to make all the advertisements a guarantee of the reliability of the advertiser.

If any of our readers desire to buy breeding stock or implements of any kind our advice is, look carefully over our advertising columns. In every case purchasers will find it wisest and most satisfactory to buy from enterprising and pushing business men. All such advertise. In this day and generation the man who does not advertise is usually the owner of stock or goods which is far behind the times.

When writing to any of our advertisers, say you saw their advertisement in the "Farmer's Advocate."

We want industrious, reliable, pushing men in every township in the Dominion, to canvass for us, and introduce our splendid Subscription Picture. Steady employment and good wages given to suitable men. Write for particulars.

### Our Jersey Illustration.

During the last few months our readers have read, no doubt, the discussion that has been going on between breeders championing the merits of different breeds of dairy cattle.

In this number our readers will see the beautiful chromo, which we think is a credit to our artist, Mr. J. P. Hunt, and our branch business, the London Printing & Lithographing Co. We feel sure, could our readers see the animals that are the originals of this group, they would fully understand and appreciate the pride which their owner justly feels. Considering the skilful way in which he has selected his animals from the best bred herds the most satisfactory results can confidently be looked forward to.

The bull Count Hugo of St. Anne's 23613, A. J. C. C., is a particularly richly bred one, sired by Romeo of St. Lamberts 2nd, 1st prize yearling at Quebec in 1887, when \$1,000 was refused for him; he is strongly inbred in the blood of Stoke Pogis 3rd, which is said to have been the best Jersey bull living or dead. The dam of Count Hugo, Queen Bess of St. Anne's, is also full of the blood of Victor Hugo and Stoke Pogis 3rd, or over 90 per cent. of the blood of the far famed Mary Anne of St. Lamberts.

Thaley 14299, A. J. C. C., one of the group is a cow of rare breeding, and is of an entirely different strain, inheriting the blood of the justly celebrated Coomassie as well as Capt. Philip Le Broquets Welcomes, through her dam Fauvette.

Rufaletta 42131, A. J. C. C., the other and younger cow has in her veins the blood of St. Helen and Signal. Thus they are a most happy combination of the most richly bred families. As they are distinctly apart in their lines of breeding, the owner has an opportunity of uniting some of the most valuable qualities, which are invaluable to those who prize this, the butter cow, which has become popular alike by her wonderful productiveness in the hands of the professional dairyman, and the pet of gentlemen who prize her for her deer-like appearance in their pasture grounds, as well as for her supply of cream and butter. Their proprietor informs us that those two cows are producing 20 lbs. of butter per week on ordinary keep without any effort to force them. They have at Belmonte a lot of young things which bid fair to be quite equal to any of their ancestors.

Throughout the length and breadth of America Jersey cows have taken a firm hold on the confidence of butter-makers. The fine quality of the product from the Jersey is not approached by any other cow. The cream separates readily from the milk and the butter is firm and of good texture in the warmest weather. This breed was brought to its present state of perfection after many years of skilful breeding. It is over 100 years since it became a penal offence to import anything of the cattle kind into their original home, the Island of Jersey, and the strictest attention has been paid ever since that time for the especial purpose of producing a butter cow.

Our Artist has been very successful in bringing out in the picture both animals and grounds true to the original. To us it is difficult to decide whether the owner, Mr. Wm. Johnson, Belmonte, Sweetsburgh, P. Q., should feel proudest of his cattle, buildings, or grounds. The cattle our readers can judge from the picture. The grounds are tastefully laid out and handsomely kept, and the buildings are in the best of good order, neat and trim.

The fine appearance of the buildings is in no small measure due to the free use of Johnson's well-known paints.

### Johnson's Pure Paints.

The question of paints and painting is of great importance to the farmer and deserves a greater consideration than has hitherto been accorded to it by our farming population.

Farm buildings last very much longer when protected by good paints, and when taking into consideration the great cost of buildings it seems to us false economy to grudge them a few coats of good paint, to say nothing of the immense difference in appearance.

Farm implements should also receive far more attention in this respect; wagons, sleighs, horse-rakes, binders, all farm implements in fact, will last twice as long if they are kept well painted. When we say they would last twice as long we are not using a figure of speech, but simply state a well proven fact. The annual loss to the farmers of the Dominion from neglect in this respect is very great indeed.

There are several causes for this neglect, such as lack of knowledge how to mix paints and the consequent necessity of going to the expense of hiring a painter, and also the miserable quality of a great many paints. Everywhere throughout the country, villages, towns and cities these facts are made manifest; in fact it is an exception to see a well-painted house on which the paints are standing well. This confirms us in the opinion already expressed that the majority of paints sold are of a very poor quality, and the question now arises, how are the Canadian people to remedy these evils?

They must first make up their minds to consider quality before cheapness, and when they have overcome the tendency of sacrificing the former to the latter they must buy only goods having a well established reputation. Our advice is therefore buy only from firms who invariably send out well tried paints and who have a reputation at stake. Paints bought from such firms are sure to give satisfaction, being both durable and handsome.

Our illustration will give our readers a slight idea of the quality of the paints manufactured by the William Johnson Co., of Montreal. The house is painted with Johnson's Pure Green Stone, the trimmings and cover of the verandah with Johnson's Pure Pompeian Red, and the roof with Johnson's Magnetic Paint. The colors, you will observe, stand out beautifully. The editor of our Eastern Edition has been using paints to a greater or less extent for the last forty years and has never used anything equal to Johnson's paints. No red paint is standing the test of time in London as that which procured from this company. Many other houses have been painted red in imitation of his, even that of the City Engineer and others, but none appear to be so fast in color or equal in substance. Although these houses were painted four or five years later, his is as fresh as when first painted, while the others are more or less streaked and faded. This firm make a great variety of paint for all sorts of purposes, several of which we have used and found them all superior in color, gloss and durability.

We wish our readers to bear in mind that these paints are all mixed ready for use, needing no other manipulation than simply stirring and applying. As all our readers know the main expense of painting is not in the cost of the paint but in the cost of labor. It requires more labor to apply inferior paints than the best. Even if you are lucky enough to buy the best material in an unmixed state you have then to employ a painter to mix and apply them at high wages, while Johnson's paints can be applied satisfactorily by any intelligent farm hand at one-half the cost charged by a regular painter, who would do the work no better.

We will briefly mention some of the paints put up by this firm. Johnson's Floor Paints

are prepared in six shades, from which a suitable selection can be made. These paints have good body and dry in 24 hours. They contain no benzine alkalies or other deleterious compounds, but are good, old-fashioned paints, brought to perfection after years of experience. Their regular line of paints for outdoor use comprise 30 different colors and shades. Added to those they have just brought out 24 of the newest shades, which are beautiful and most artistic.

This firm makes a specialty of Johnson's Magnetic Iron Paints, owning and controlling the only mines in Canada for the manufacture of this article. Base imitations are being put upon the market and sold as Magnetic Iron Paint. We advise those intending to use it to see that the well known trade mark of the William Johnson Company appears on each package.

It is declared to be positively the finest Iron Paint ever offered to consumers, suitable for any kind of work, especially adapted for roofs and out-buildings.

Speaking of the value of Iron Oxide as a substitute for lead, or other bases in paints, the highest French authorities say:—"This product possesses all the good qualities of lead without any of its inconveniences. It is of a rich brown color, and mixes perfectly with linseed oil. Under equal circumstances it covers 150 per cent. more than lead, and is a better protection against oxidation. It contains no acids, sulphur phosphorus, or other element hurtful to the painter or articles painted. Everything that could be injured by wind, rain or shine has been driven out in the process of roasting, hence it cannot be altered by such influences as act injuriously on all other paints."

We are told by the Chemist Berzelius, "that owing to the protective properties of iron in paint buildings have withstood the ravages of time and the destructive elements of heat, rain and frost for over three hundred years."

The ore from which this paint is made is thoroughly roasted in furnaces built for the purpose. It can resist strong heat, and may be advantageously employed for painting the interior of boilers and preserving them from incrustation.

As its tinting powers are more than double that of other oxides, it is economical to use in coloring mortar, &c. It can be used for any purpose, for either inside or outside work.

It makes a beautiful contrast with stone, brick or any of the artistic shades of paint now in vogue, and is especially valuable for painting farm buildings, iron and agricultural implements, as it is fireproof, almost indestructible, economical, un fading and waterproof.

The manufacturers have sent us a long list of testimonials given by such companies as the Cobourg Car Works, Ontario Car Co., The Rathbun Co., Metallic Roofing Co., Chicago; Rock Island & Pacific Railroad Co., Canadian Pacific Railroad Co., and a number of other reliable Canadian and American firms, all of whom speak very highly of this paint. All goods put up by this firm are warranted to be Pure Linseed Oil Paints, containing no cheap mixtures, and are put up in packages varying in size from 45-gallon barrels to one lb. tins. The majority of hardware dealers and painters will advise you to buy their own wares, declaring them to be better than any other ready mixed paints. This they do from personal interests and prejudices. We would advise all who have anything to paint to send to Wm. Johnson & Co., Montreal, P. Q., for a sample sheet of their colors and price list, or else insist upon their local purveyor supplying them with Johnson's Pure Paints.

A beautiful assortment of cards will be sent on application and full information as to their use.

Sheep could be reared on a great majority of farms to advantage. The range of products—wool, mutton, lambs—gives such a leverage in market that some one of the three can nearly always be handled to advantage in any particular locality, to say nothing of the advantage which sheep are to the farm. The great variety of breeds gives a wide latitude in choice, and a selection can be made which will cover the wants of the specialist, whatever he may desire. Many people need sheep who do not realize that need.

**John Dryden, M. P. P.**

The subject of this sketch was born June 5th, 1840, on the farm where he now resides, which then comprised 180 acres, and is situated on lot 20, 7th concession, Whitby, county of Ontario. The school house being near by he was sent to school at the early age of three years. When five years old he had learned to read easy lessons in the New Testament. His father having only a meagre education, and keenly realizing his lack, determined that the son should have all the advantages in this line the schools then afforded. He was accordingly kept steadily at school, making rapid advances and being always a favorite among his class mates and teachers. At the age of sixteen, having been out of public school for some time, he was sent to what was then called the Whitby Grammar School, taught by William McCabe, now manager of one of the Life Insurance Companies of Toronto. Here he continued his studies for a year and a half, taking first place in nearly every subject, and completing the usual course then taken at these schools. His teacher pressed very hard that he should matriculate at the University, and take the course then provided in agriculture, guaranteeing him to obtain the scholarship of \$120 offered at that time in this department. But Mr. Dryden's fondness for the farm and his desire to enter again upon his chosen occupation, caused him to refuse, and so ended his school life.

From his earliest days he has had a fondness for rural scenes and the farmer's life. Naturally fond of live stock, he early manifested a desire to have some of the best specimens upon the farm. To this his father resolutely objected, declaring that these were no better than such as they already possessed, providing both were fed the same, and it was not until many years had elapsed that he was prevailed upon to make his first purchase. This consisted of a bull under one year, which was, as might be expected, given to the care of the son. The bull was kept in the same stable and treated in every respect similar to the ordinary calves upon the farm, but the rapid growth and perfect development of this animal, in comparison with the others, convinced the father that his former idea was a mistake. He was then willing to make the purchase of a heifer, and soon afterwards a cow and calf, which was the starting point of the present large herd of Shorthorns. At the age of twenty-one the farm—to which had been added fifty acres—was passed from his father's control to be worked by the son on shares. This continued for two years, when the arrangement, proving unsatisfactory to both parties, was broken up and a full annual rent was afterwards paid until the father's death, in 1881.

Shortly after he entered into this arrangement he rented his uncle's farm of 170 acres, lying adjacent to his own, and a few years later another lot of 95 acres. The land was held thus for seven years, when he became the purchaser. Sixty-five acres lying too remote from the farm buildings was disposed of and the balance constitutes his present farm. It lies in a block, is pleasantly situated, and contains some of the choicest land to be found in that fine agricultural district. Two public roads, running either way, divide the farm into four parts. On each side of one of these roads maple trees were planted many years ago and the farm has therefore been named "Maple Shade."

It is not too much to say that Mr. Dryden is an enthusiastic farmer, taking a pride in every department of the farm. The farm itself be-

herd of Amos Cruickshank, Aberleenshire, Scotland. The last purchase in this direction being the entire herd of Mr. Cruickshank's nephew.

In stock breeding, Mr. Dryden believes in working for a definite object, with an ideal always before him, and any one who views his sheep or cattle will be convinced that he has accomplished his purpose. In uniformity and flesh producing qualities they can scarcely be excelled. His herd has furnished its fair quota of prize taking animals, which have been shown with marked success, not only in Ontario, but also in Manitoba and the United States.

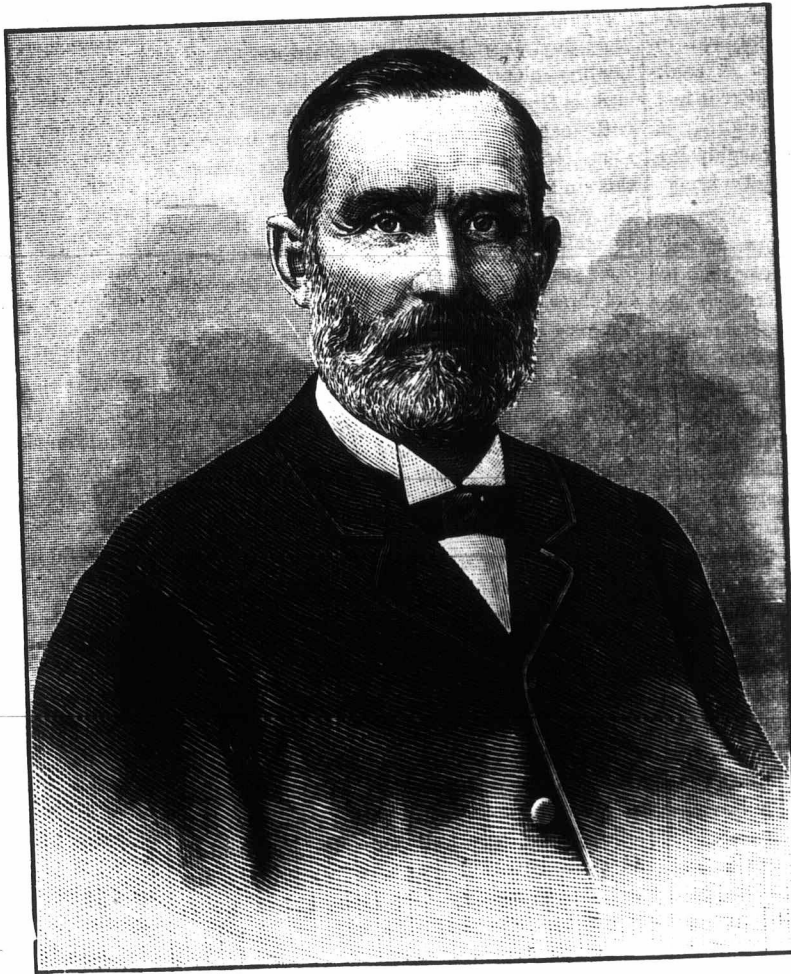
Excellence, however, is not seen merely among the Shorthorns, but horses, sheep, pigs and poultry all manifest the same skill and careful attention. The theory practiced at Maple Shade is, that it pays to produce in all these lines only by the best.

Mr. Dryden has continuously served the public in different capacities since he reached the age of twenty-one. As Secretary-Treasurer of his school section, President of the County Agricultural Society, Reeve or Deputy-Reeve of his township, he has manifested that interest in public affairs which finally placed him in the position he at present occupies. Under his management the Agricultural Society of South Ontario reached the zenith of its usefulness. During that time sheds and stables were erected on the grounds and order and system were inaugurated in every department.

In January, 1864, he was first elected to the Municipal Council. His first speech on that occasion was given with that frankness and honesty which has characterized his entire public career, and was so well received by the people that he was placed by long odds at the head of the poll. At the first meeting of the Council he was elected to the position of Deputy-Reeve, continuing in this place or that of Reeve for many years, when he voluntarily retired. During this period his name was frequently mentioned as a candidate for parliamentary honors. His ambition not lying in that direction, he refused to accept the honor. Being again and again urged by his numerous friends in 1879 he consented to contest the riding with the former representative, N. W. Brown. At this time the riding was represented by

conservatives in both Houses. Mr. Dryden's personal popularity and honesty of purpose placed him, after a hard fought battle, at the head of the poll, and among his farmer friends throughout the riding there was great rejoicing and mutual congratulations. At every election since that time he has been vigorously opposed, but after eleven years of public life his popularity remains the same, and he still holds the place as representative of the riding in the Local Legislature.

All the stock associations of the country have been more or less aided and encouraged by his presence and influence. He has been the honored President of the Dominion Shorthorn Breeders' Association since its inception. He is now the Vice-President of the American Shropshire Association. He has written a good deal for the agricultural journals, and has latterly spent much time in addressing Farmers' Institutes. He is intensely practical, and is always well received and much appreciated. He is in the fullest sense a representative farmer, and is an honor to his calling.



JOHN DRYDEN, M. P. P., BROOKLIN, ONT.

speaks the care and skill with which it has been managed. Everything is done upon the farm in the most approved manner. No part of the work is shirked, everything which is done being well done. The result is that the crops at Maple Shade are never behind those of the district. For the last thirty years tile drainage has occupied Mr. Dryden's attention, and at a Farmers' Institute meeting the other day he was heard to remark that this season he had completed his last field. Many hundreds of dollars have been spent in this work, but Mr. Dryden always claims it has given him ample returns for the outlay. But little needs to be said about his career as a breeder and importer of pedigree stock. His name and his fame have gone abroad, not merely in his own county and province, but in every state of the American Union as well. To the nucleus originally started by his father, under the son's guidance, he has repeatedly added importations from the renowned

### A New Implement.

On the 18th August the editor of the eastern edition was invited to the Asynm grounds, near London, to see the new Draper Spade Harrow work. Several implement manufacturers, dealers, and a number of prominent farmers were also present.

The machine was first tried on sown corn stubble, and although in some parts of the field the grass and weeds had grown up and the ground was hard and tough, the machine did good work. It was next put on a heavy clay field in which were a great number of very large hard lumps. Here the machine was weighted with about 300 pounds, besides the driver. Those present fully expected to see it go to pieces, but no, on it went crushing and cutting the lumps in a very satisfactory manner.

They then went to the farm of Mr. Anderson where the harrow was worked on newly ploughed sod; this it left perfectly pulverized and in splendid condition for the reception of seed. From the appearance of this ground, after it had been cultivated, no one could have told that it had recently been sod, as it was thoroughly cut up, and that without tearing up the sod or bringing the grass to the surface.

This implement is an entirely new device, although it resembles the Disk Harrow, but is claimed by its introducers to be much more effective. While the disk has only twelve round disks placed about six inches apart, this machine has fifty-six spades with 156 sharp cutting edges, as will be seen by the cut in the advertising columns. The machine is made up of two revolving cylinders with curved blades six inches wide and sixteen inches long which, when required to dig or work up the ground, are shifted at angle with each other. The more the ground is required to be pulverized the more the cylinders are angled. There is an adjustable spring tooth in the centre of the machine; this feature is of great value to the harrow, for although the spades cut and turn the ground every two inches, the cylinders are not allowed to come quite together in the centre, therefore it leaves a ridge of about four inches uncut. The spring tooth is made to split this ridge leaving the surface level and making a complete job.

Another new and very valuable feature in this machine is the electric evener spring by which the driver can throw his weight on any part of the harrow. About fifteen years ago the editor had a disk harrow on his own farm and found it a very useful implement, but as the disks were made of cast metal they broke. Steel disks were next used, which were a great improvement. The chief objection then raised to the use of the disk harrow was that it threw the ground in ridges. Later still the disk was made with notches cut out, which was claimed by the inventors to be an improvement over the solid disk. Now we have the spading harrow which the manufacturers claim an improvement over all the others. It is claimed that this implement will not clog, which was a great objection to the old sorts.

In the interests of our patrons we call attention to this machine, and as we learn the makers will exhibit at Toronto, Ottawa and London shows this fall, we would advise all concerned to see it. We believe it is worth a careful examination.

### Stock.

#### Studs, Herds and Flocks.

There are none more desirous of the good wishes of their countrymen than those who have spent their time and means in bringing to our shores the improved stock for which our country is now becoming yearly more famous. Among those who have come rapidly to the front as importers and breeders of Clydesdales are the firm of

MESSEURS. D. & O. SORBY,

Woodlands Stock Farm, Guelph. They have obtained an enviable reputation for the open and liberal manner in which they are conducting their business operations and which has telling effect with their customers, and the yearly increase of their business is encouraging them to go on in the same line. A few well-known horses are still here, such as old Boydston Boy and Bold Boy, as well as some of those not quite so familiar, although successful in the show ring, such as Craigievar, and a lot of very useful mares with foals at foot, which have not been mentioned to our readers in a previous notice of this stud in the ADVOCATE. The importations this year numbered fourteen, eleven of which are stallions, of which one is four years old, one three years, two two years and seven yearlings, and three are mares.

A very showy horse is a three-year-old bay by Beacon, dam by Drumflower Farmer. He has two capital ends and looks like one built of the stuff to stand work. A two year-old by the Good Hope horse, Prince of Airds, is a colt full of promise; a bright bay with good underpinnings, and a capital mover. A yearling colt by Bonny Sanquar shows well, but a better one is a bay by Darnley Hero. This colt is capital from the ground up. He is showy, well-colored, and at present shows among the best of the yearlings. A fine big fellow is the yearling colt Macnab's Heir, whose sire, Macnab, is of most fashionable breeding, as he is got by Macgregor, dam out of a Prince of Wales mare. Macnab's Heir was first at Elgin. A colt with grand quality is a black by the popular bred sire Flashwood. There are other good ones that looked exceedingly well for colts just landed, and some beautiful mares, a particularly fine four-year-old mare by Old Times and a three-year-old by Titwood Lord Lyon.

MESSEURS. ORMSBY & CHAPMAN.

On the banks of the River Credit, in the very south-west corner of the County of Peel, is the picturesque little village of Springfield-on-the-Credit. There we find located the Grange Farm, the property of Messrs. Ormsby & Chapman, the pioneer importers of Improved Yorkshires in Canada. In 1886 Dr. J. Y. Ormsby, the senior partner in the firm, made the first importation of Registered Improved Yorkshires ever made into Canada. It consisted of a boar and two sows. One of the sows, unfortunately, died about two weeks after landing, but they so impressed their owners with the good qualities of this breed that in 1887 they made a second importation. This was followed in 1889 by a third, consisting of six head, and at the time of our visit Mr. G. S. Chapman was, we were told, just leaving England with a selection of sixteen head, carefully chosen from the best herds in England.

One of the most noticeable features in this

herd is its uniformity, all the pigs we saw being apparently cast in the same mould. Among the boars we especially noticed the aged boar Pat (40), C. I. Y. R., winner of the sweepstakes prize for the best large breed hog on the ground at the Provincial Fair last year. He is a grand, long-bodied, deep-sided fellow, showing wonderful quality, and standing as straight on his legs as ever, in spite of his great weight. While among the sows the imported sow Holywell Midge V. and the home-bred sow Hilda are grand specimens of what a bacon pig should be, lengthy and deep-sided, with plenty of bone, but no coarseness. We may add that, although only started in 1886 with three pigs, this herd now numbers over fifty head, all registered, or eligible for registration, and we are informed by Dr. Ormsby that last year their sales of pigs aggregated between \$1,900 and \$2,000, reaching from New Brunswick to British Columbia and into several different States.

Besides their Yorkshires these gentlemen have one of the largest studs of Shire horses in the Dominion. Commencing in 1886 by importing three stallions they have gradually enlarged their operations until their last importation, which consisted of fifteen head—ten stallions and three mares. Among the horses now on hand we would especially mention Leake Cramp, a brown 4-year-old. This colt, while not overly large, has a wonderful set of legs, hard, flinty bone and grand feet. He was placed third at the Buffalo International Fair last fall, and first at Toronto Industrial and first at Hamilton Central. Commander IV. and Leake Walker are a pair of 3-year-olds that should make capital stock horses. The first, a strong brown colt, showing very heavy bone and a wonderful lot of substance, took second last fall at the Buffalo International, while the second, a rich bay, was placed first at Toronto Industrial and again at Hamilton Central. He is the right pattern, low set, thick and blocky, with a grand set of legs and plenty of action.

Besides their Shires Messrs. Ormsby & Chapman own the imported Hackney pony Little Wonder, winner of second prize at the Royal Show in England in 1885, where he was beaten only by his own grand sire, Sir George, Mr. C. W. Wilson's famous champion pony, and we are told Mr. Chapman, who returns this month, expects to bring back with him one or two Clydesdales from Lord Londonderry's celebrated stud at Seaham Harbor.

Besides the horses and swine we found here a small flock of Registered Shropshires and a few Shorthorns.

One noticeable fact at the Grange Farm was this, in spite of its being only a month till show time we found all the stock in breeding condition, as one of Messrs. Ormsby & Chapman's principles is that the easiest way to spoil good breeding is by the mistaken method of over-feeding for show purposes.

Devon cattle as bred by

MR. W. J. RUDD,

Eden Mills, are a nice lot, numbering twenty-eight head, the cows showing good milking development, and some very neat heifers bid fair to follow, and show, as this breed does, capital beefing and grazing qualities, and a particularly good cow sired by the O. A. C. bull, both sire and dam being imported. The bull now in use is sired by a bull which won at the Centennial.

**MR. JAMES HUNTER,**  
Sunnyside, is now breeding a lot of useful Clydes. The two nicely bred mares, imported by himself, have produced a number of good ones. A particularly good one is a three-year-old filly, also a two-year-old filly by Boydston Boy. Gambetta, a son of Brilliant, has done good service in the stud, and the present stock horse is Master Lyndock, sire imported by Messrs. Sorby. He is sired by the celebrated Lord Lyndock that has been so highly spoken of in the west, and was quite successful as a show horse there. Master Lyndock is a really good one, uniting both size and quality in a high degree.

The Shorthorns at Sunnyside have long been famous, Mr. Hunter having always been quite an admirer of Booth breeding. The old Booth sorts are represented by some fourteen of the Mantilina family, some very good specimens of which are here. The old useful sort of the Queen of the May branch of the Symes, with Booth top crosses, that have often made members of our best show herds take a back seat, are still found in some very smooth, heavy cattle in this herd. A goodly lot of descendants of Lady Fanny, of Sittyton breeding, show what this good beefing sort has done to keep them up to the mark. Rather against the rules of propriety in Shorthorn breeding Mr. Hunter has now at the head of his herd a very neat Bates bull bred at Bow Park, and time will show what this cross will do for the Sunnyside Shorthorns.

**THE SHERIFF HUTTON SHORTHORNS.**

Mr. Wm. Linton, of Aurora, who is another full believer in Booth line of breeding in Shorthorns, carries out his views by breeding to Booth bulls of the highest stamp. His present stock bull Royal Booth 2nd, sired by Imp. Royal George, bred by the executors of Mr. T. C. Booth, and out of an imported Booth cow of the Bright family, is a bull of capital Booth character. He is very well filled in all his beef points and is very even and neat. His get are remarkably alike. Some very good imported cows from the old Sheriff Hutton herd are here, and Mr. Linton now has the largest number of this famous old prize winning sort, as for quite a few years the home-bred herd has been dispersed, but each year a number of winners, both bulls and cows of this breeding, have come forward at the Royal and other English shows.

Mr. Linton has a very nice selection of Berkshires, for which he has had quite an active demand.

**The stock farm of**

**MR. E. M. JARVIS**  
is beautifully situated on Lake Ontario, about four miles east of Oakville, on the Toronto and Hamilton Branch of the G. T. R. Within the last few years Mr. Jarvis has begun breeding fine stock, of which Improved Yorkshire pigs are given the most important place. At the head of the herd is Imp. Holywell Physician, a pig of capital character and good even quality. He was bred by Mr. Sanders Spencer. Several sows from the same breeder, among which are Holywell Pearl, a sow with a beautiful head, is proving a most satisfactory breeder, her pigs being ordered as quickly as they are ready to be shipped. A number of remarkably even litters were on hand and were awaiting orders, many of which had been booked for some weeks previous.

A choice flock of Horned Dorsets have lately been added. These sheep appear to be more sought after. Mr. Jarvis is working his land with heavy Clyde and Shire mares which are in keeping with the rest of the stock, and has begun breeding a few Jerseys.

**MR. T. BRAMELD,**  
of Oakville, has twelve head of choice Jerseys of the most fashionable strains, and from them is delivering a goodly weekly supply of gilt-edge butter to customers in Toronto. Two bulls are at the head of this choice herd. One is a son of that capital sire Canada's John Bull, the other is the Stoke Pogis bull Rambler 18456, A. J. C. C.

Mr. Brameld was very successful at last year's Toronto exhibition, and intends exhibiting a few again this year, but owing to a very successful sale held last April will not be forward with as many this year. The cows that are on hand are principally of St. Lambert's blood, and others are from recent importations from the island of Jersey.

**MR. JAMES TOLTON,**  
Walkerton, has bred up a flock of exceptionally fine Oxfords, which number over 50 head of his own breeding. These were bred from sheep imported some years since. To these this year he has added an importation of forty-four. At the head of these is a grand shearing ram and equally as good a lot of shearing ewes, bred by Mr. A. Brassy, that carried first at both the Royal at Plymouth and at the Oxford show in their respective classes. Two extra good ram lambs were obtained from the same flock, the balance were purchased of Mr. G. Adams, including two ram lambs and some shearing ewes from the second prize pen at the Royal. An excellent lot of store shearing ewes and some capital ewe lambs completes the number imported. As a lot they are particularly fine and our readers who may attend the different fairs this season will have an opportunity of seeing them, as they will be out in strong force.

**MR. JOHN ISAAC,**  
Markham, is well known as an importer and breeder of Shorthorns, specimens of which have been particularly successful in the different State fairs across the line as well as at home at our own shows. It has been his aim to breed mostly from imported cows, and by selling at fair profits has obtained quite a reputation. His present stock bull, Baron Lenton, was bred at Sittyton, while his cows are bred by Mr. S. Campbell, Kinellar. This bull has sired a lot of extra good ones, some of which have turned out winners.

**MR. HUGH THOMSON,**  
St. Marys, who has handled a number of imported Clydesdale stallions of late years, has lately landed six nice young horses which are particularly well bred and of nice even quality. They are got by some of the most popular sires of the day. The lot include two three-year-olds and three yearlings. A two-year-old, Garnet Prince, gained first prize last year, beating thirteen others. He is sired by the celebrated horse Garnet Cross, premium horse for Wigtown since 1882-83-84. Mak Welcome, another two-year-old, sired by McCammon, dam by Garnet Cross, is a particularly well finished colt with plenty of quality. A capital yearling is McKnight, sired by Bay Prince (5528). This is a nicely turned colt. He has plenty of bone and should develop into a good one. Royal Ury is

almost a mate to the last, has a capital neck and head, although hardly as neatly turned at the quarter. Of the two others is Sir Patrick, sired by Sir Donald, dam Dolly. Another two-year-old, which we did not get the breeding of, is also on hand.

**Mr. Robert Miller, jr., of the firm of JOHN MILLER & SONS,**  
Brougham, Ont., has recently returned from England. He brought with him 184 Shropshire sheep and seven Cotswolds—five ewes and two rams. The latter were bought for Messrs. J. & W. Russell, Richmond Hill, Ont., and were bought from that renowned English breeder, Mr. Robert Jacobs, and were the choice of his celebrated flock. The Shropshires were carefully selected from the flocks of the best English breeders and in every case those taken were chosen as being the best in the flock. The lot comprise 31 fine show sheep and 153 in fair flesh. Besides the present importation Mr. Miller has 50-yearling Shropshire rams besides a very large flock of breeding ewes. The Shorthorns and Clydesdales belonging to this firm are in fine thrifty condition, and, as usual, include a large number of very good animals. Their crop of calves this year, by that renowned bull Vice-Consul, are worthy of their noted sire and show in each his great wealth of flesh and beauty of form. This grand bull, though now six years old, is as fresh and smooth as he was two years ago when he swept the Province in the show ring.

**JAMES GARDHOUSE & SONS.**  
have a large, fine stock-breeding establishment. They have imp. Clyde and Shire mares of straight breeding and also a number of that capital class that are recorded in the Dominion Draught Horse Stud Book, as Mr. Gardhouse has been breeding heavy horses for thirty-five years. In the class just spoken of he has bred to both Clyde and Shire, more from a point of merit in the sires he has made use of than with a view to breeding in either line, and he has some capital specimens of this breeding.

The noted prize winning Shire horse imported King of the Castle and imported Clyde Donside Stamp stand at the head of the stud. The herd of Shorthorn cattle here have for years taken a prominent place in our show rings. Such imported sires as Premier, Earl and Eclipse have been in use, and a number of imported cows from the most famous herds have from time to time been purchased.

The celebrated Shorthorn show herd of **MESSRS. J. & W. RUSSELL,**  
Richmond Hill, have figured in many a hard fought contest, and although it has been their fortune to have struck more than ordinary heavy odds in the ring, they have also won their full share of laurels. The breeding herd now numbers about sixty head. Two bulls are in use. The roan bull Stanley, which headed the class for over three in every show last season, is now in wonderful flesh and is keeping his form well. The imported three-year-old Windsor (red) is also a bull that carries a lot of natural flesh. As classes are given for both ages, we hope to see both these bulls out at the shows this season. The old families so well known in this herd will be well represented in some of the classes for females, and are quite good enough to keep up the reputation of past years. We have not space to particularize, but some of the younger ones will take a lot of beating.

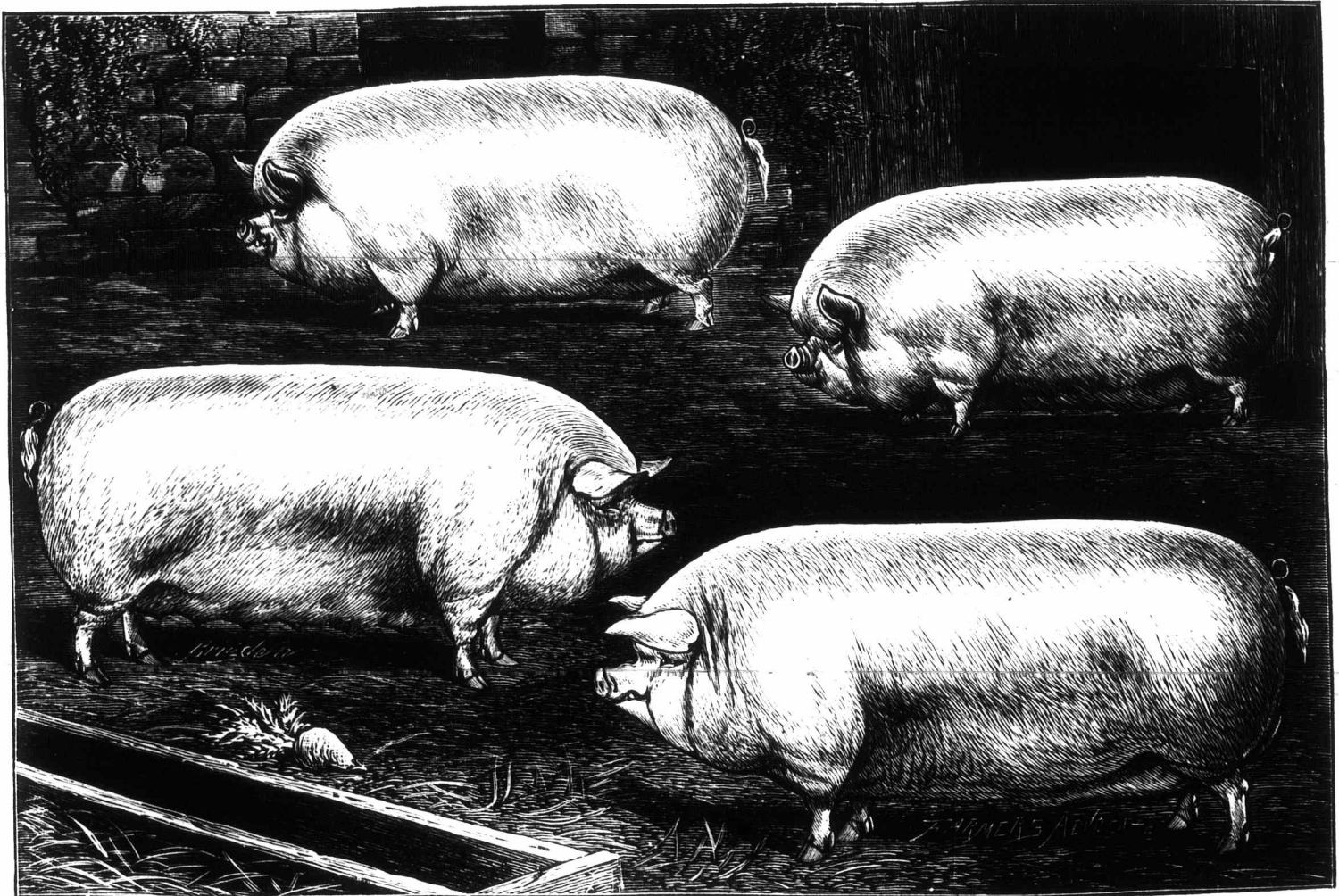
The flock of Southdowns belonging to  
DAVID H. DALE,  
Glendale, near London, has just come to the front. The excellent feeding land, combined with good care, has reared up a flock of Southdowns that for even quality and size throughout the breeding flock is hard to beat. This flock has been founded for many years, and great care has been shown in the selection of the rams that have been purchased for use in the flock, which has not been exhibited to any extent. In order to become more prominent in breeding circles, as well as to continue the improvement of the flock, Mr. Dale visited England this season and selected a particularly choice lot of breeding ewes. Part of these were purchased of Mr. J. J. Colman, whose flock won the following prizes at the Royal Show:—Championship for ram, first for two shear ram, first for pen of shearling ewes.

growth should be exceedingly good, and the fine tilth these fields were in showed that plenty of labor had been expended; not a weed to be seen, either in root or corn crops. Several varieties of the latter had been sown, and there will be no lack of winter feed on this farm, Mr. Simmons evidently making every effort to make feed-growing a specialty. The old sweepstake bull, Sir Christopher, of show yard fame, is still in capital form, and, although not carrying the flesh we were used to see, is still as fresh and vigorous as ever, and some capital heifers testify to his excellence as a sire. The younger bull, Red Knight, the get of the imported Cruickshank bull Julius, and a winner at Toronto and London in 1888, is also looking very well. Among the cows, in point of breeding, the imported cow Mina Princess, bred at Kinellar, deserves premier position. She is a large cow, carrying plenty of natural flesh; a yearling heifer by Gladstone and imported in her dam bids fair to

#### Mr. Featherston's Yorkshires and Suffolks.

Mr. Joseph Featherston, Springfield-on-the-Credit, Ont., has been importing and breeding Suffolk, Essex and Yorkshire pigs for twenty-four years, and has competed at the Provincial every year during that period. Also many times at Illinois, St. Louis, Indiana, and other State Fairs, and has always been a successful competitor. He swept the Yorkshire and Suffolk classes at the World's Fair in New Orleans.

The Improved Yorkshire boar Sampson, illustrated in this issue, was at the head of the Improved Yorkshire sweepstake herd at London Provincial, 1889; first in the aged class, and head of the sweepstake herd at the Industrial Fair, Toronto, in 1889; also first at the Central



PRIZE-WINNING SUFFOLKS AND YORKSHIRES, THE PROPERTY OF MR. JOSEPH FEATHERSTON, SPRINGFIELD-ON-THE-CREDIT, ONT.

A second lot were purchased from Mr. George Jonas, and a ram lamb from the flock of Mr. Wm. Toop, who took second at the Royal at Plymouth. This completed the first lot imported. Mr. Dale left orders with an agent to purchase a shearling ram and a bunch of shearling ewes from the dispersion sale of Mr. H. Webb's celebrated Brabraham flock. These have now just landed and a most beautiful lot they are, and are a great acquisition to this choice breeding centre.

The stock farm of the well-known breeder,  
MR. C. M. SIMMONS,  
of Lobo, is now in beautiful shape. It is seldom that a pasture, such as his heifers were running in, is to be seen at this season of the year. They may well be in fine flesh. This part of the country excels in its grazing lands, and none more so than Lobo. The root and corn crops were all that remained of his year's crops, the others had been harvested and were exceptionally fine. The mangolds and carrots were even now a heavy crop, and with another six weeks

follow her. Third Rose of Strathallen, which seems to be an especial favorite with her owner, has done remarkably well for the herd, as she has a goodly lot of daughters and granddaughters. These cattle are all red and they are certainly nice even cattle.

The Berkshire herd has been particularly successful in its winnings in other years. This year all have been sold to Messrs. J. G. Snell & Bro., and in their hands they will no doubt be heard from, if a beautiful sow under a year that we saw is a criterion of what the others are.

During the month of August

MESSRS. J. G. SNELL & BRO.

received from England an exceedingly good lot of Berkshires and Cotswolds. These gentlemen have been long noted for the very superior quality of their flocks and herds, but at no previous date has this firm had so many grand show animals of the various sorts on their farm. In their animals quantity, quality and breeding have indeed met together in unusual proportions.

Fair, Hamilton, same year. The Improved Yorkshire sow Snowflake was first at London in the aged class, and one of the sows that took the sweepstake and silver medal; also first at Toronto, and in the herd sweepstake pen. Mr. Featherston says:—"Sampson is nine years old and has sired more prize-winning pigs than any boar in Canada, including all breeds." The Suffolk boar was at the head of the sweepstake herd at London which won the silver medal; also first in the aged class at the Toronto Industrial, 1889, and head of the herd for the second sweepstakes. The Suffolk sow was first in the aged class, and in the herd sweepstake for silver medal at London, 1889; also first in her class at Toronto, and one of the sweepstake herd. Within the last month Mr. F. has received from prominent English breeders seventeen head of Improved Yorkshires. His stock may be seen at Toronto, London and Hamilton fairs.

**Ponies and Pony Breeding.**

For many years ponies of the various breeds have been imported into Canada, but the number brought has been restricted because of a duty of 20 per cent. charged by our Government. As yet they have not been admitted free as other animals for breeding purposes are. Why those in authority thus discriminate against this class of stock, which is now so rapidly growing in favor, is something we cannot understand. Doubtless the duty will remain as it is until a Canadian Stud Book for ponies is started. Breeders can then demand their free admission.

Ten years ago a pony and cart was quite a novelty in nearly all Canadian cities. This condition of things is fast passing away. The pony and the pony cart is the best and cheapest means of locomotion, especially for ladies and children's use, or for any kind of light driving in villages, town or cities or for similar country use. Many persons are under the impression that a pony can do but a very limited amount of work. This is a great mistake. Messrs. John Miller & Sons, Brougham, Ont., who have imported a great many ponies during the last twenty years,

hands high is considered the result of some degenerate foreign cross of the ancient Exmoor breed. From the above we learn what is considered a pony in their native home, Britain. At one time, and even by a certain class now, very small ponies were and are considered more valuable than those of a useful size. This is certainly a fallacious fancy, and if continued in will injure pony breeding in America. What is wanted is a useful, stylish, gentle pony, possessing high hock and knee action and not less than twelve hands high or more than fourteen hands. Anything much smaller than twelve hands is too much of a toy to be useful. Anything above fourteen hands should certainly be looked on with suspicion concerning the purity of its breeding as a pony.

One of the most difficult things to get is a really good

**PONY CART.**

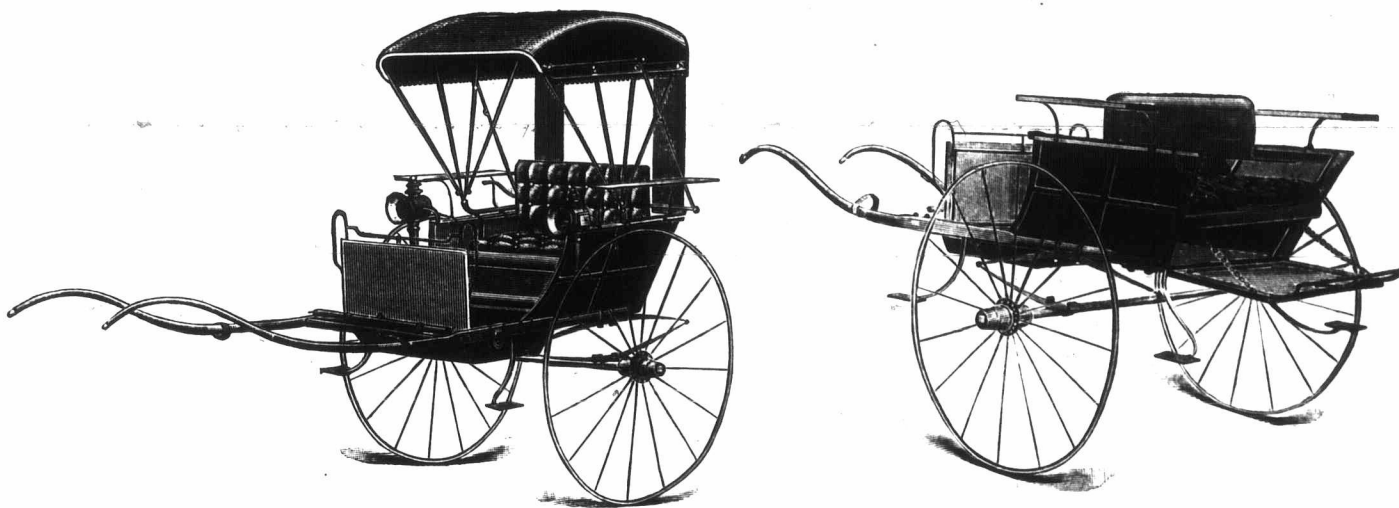
Many of those made in Canada are poor in workmanship and tiresome to ride in. Mr. Wm. Newport, Whitby, Ontario, some years ago introduced an English pattern. His carts, both single and double, large and small are very desir-

and safe for children to ride or drive. The large-sized pony is the most useful, although at present the smaller they are the more valuable they are considered. We would recommend the raising of good, strong, useful ponies, as in the future they will be in more demand, and if crossed with a blood horse bring good, strong drivers that are very desirable. We know one now that is doing as much driving as any horse in this part of the country and standing it well. She is bred from an imported pony and sired by a blood horse. Upon the whole we are very well satisfied with importing and handling ponies, so much so that we intend to keep a few always on hand.

**PONIES IN BRITAIN AND CANADA.**

BY G. W. ROBINSON, KINGSTON, ONT.

The value of ponies in Canada is from \$100 to \$150. Some old ones sell for less, and I have sold several for \$200 each. They are very valuable in cities, as they will do as much running around as the majority of people do with their large horses; they are stronger, according to size, than a large horse, and it is no trouble for a good 11 to 12 hand pony to start off on a good trot before cart or buggy with two grown people



TWO STYLES OF THE NEWPORT CART.

have owned many that did a great amount of work. One of their importation was sold to a leading grocer in a country town and was used for upwards of twelve years in his delivery cart, and was at the end of that time, to all appearances, a good sound pony. Mr. Miller has now a grey pony mare which his family has driven for upwards of twenty years and she is still sound and active and a remarkably good traveler. Mr. Robert Miller, sr., owns and drives a pony which has few equals as a driver, either among ponies or horses. He stands about thirteen hands and is very handsome. Mr. S. Sidney, in his famous work, The Book of the Horse, on page 211, writes thus of the pony:—"Next to, or even before the brougham horse, comes the pony, which is a sort of equine servant-of-all-work; that on which the boys and girls learn to ride and a ready resource in any emergency." The question, What is a pony? is somewhat difficult to answer. In Yorkshire, Leicestershire and Northamptonshire anything under 15 hands 2 inches is called a pony. In Suffolk, famous for its horse breeding, the height of a pony is settled at 13 hands 3 inches and under. In Nottinghamshire anything under 14 hands 2 inches is called a pony. In Devonshire and Somersetshire a pony over twelve

able in every particular—durable, handsome and most comfortable to ride in, and considering the workmanship they are cheap. We have three of them now in use and like them very well indeed. We have seen very flattering reports received from parties in various parts of the Dominion, written by parties who have used these carts. The following are the views of well-known men concerning the usefulness of ponies:—

**THE FUTURE OUTLOOK FOR PONY BREEDING.**

BY R. MILLER, SR., PICKERING, ONT.

We would say we have imported a great number of ponies and have also bred quite a number. They have given us good returns for money invested—equally as much as other branches of stock raising. We consider them valuable for city use, as they can be kept so much cheaper than a horse, and for a light load, short driving on good roads they are equally as good. From present prospects we think the demand for them for city purposes will rapidly increase, as all those who have handled them like them. If raised by farmers to a limited extent I think they would have no trouble in disposing of them at good prices. The cost of raising them is never noticed on a farm. We have found them, without exception, quite active, prompt drivers

in. The vehicles also that are used are generally low, making them very desirable for ladies going calling or shopping. For Young Canada what could be nicer than to see several youngsters with ponies out enjoying themselves in the park or on the road. In Glasgow and Edinburgh, Scotland, also London, England, ponies are used by all classes of people and for all purposes—butchers, bakers, huxters,—pulling loads that would surprise Canadian people, while everywhere could be seen ladies and children driving wonderfully little creatures. In Hyde Park, London, one morning I counted over 100 ponies and turnouts with ladies, children or invalids. Six years ago I bought my first. Since then I have raised, bought and sold over 200. All my driving, which is considerable, is done by ponies. I have a team forty-seven inches high that I can drive right along eight miles an hour—have done so many times for thirty miles at a stretch. Last summer a team of my ponies, forty-five inches high, was driven fifty-five miles in twelve hours, including stops, in a four-wheeled trap carrying two grown people. I can feed three ponies on what one horse will consume. They will eat almost anything. I can safely say a Newfoundland dog will cost more to keep than a pony. I had no idea the work that could be



done with those ponies until I saw it on a visit to Europe. At the Shetland Isles many ponies are seen—almost like our sheep in this country. The cheapest that can be bought is £7 or \$35, but a good Shetland pony will cost £10 to £12 or \$50 to \$60. In all my travels I saw no pony that I liked so well as the Welsh. I visited North and South Wales. They are very fine limbed, clean-coated—almost as fine as a thoroughbred—and are fine travellers. My pony, which last year at the Toronto Industrial beat the celebrated trotting dog Dock, was a Welsh pony and has trotted a mile in less than four minutes. I think some farmers could make more money breeding ponies than horses. At 18 or 24 months ponies are ready to work. Many I have sold at eighteen months have been put at once at work and have always done well. They will sell readily at \$75. I always get \$100 or more for mine. I sold one colt five months old, last fall, to a party in Syracuse, N. Y., for \$100. Every year there are several car load of ponies pass through Canada for the United States. I know that we can raise them cheaper than they can be imported.

#### THE COMMERCIAL VALUE OF PONIES.

BY ROBERT MILLER, JR., BROUGHAM, ONT.

Ponies of any of the following breeds, Shetland, Iceland, Welsh, Exmoor or Highland, if well selected in Britain and imported to this country for sale or for breeding purposes, will pay as well as any other class of live stock. They range in value from \$50 for a foal to \$100 or \$125 for a mare old enough to breed or drive, and much more is sometimes paid for a fancy pony for either purpose. I think they have proved themselves valuable in cities already. They are now being used to a considerable extent to deliver parcels, by children to get the fresh air and for pleasure, a drive behind their pony being the greatest pleasure that any little boy or girl can have. And by no means the smallest advantage attached to this pleasure is the fact that children in this way learn to be expert in handling horses, and this is certainly a valuable accomplishment. I have always noticed that boys and girls who while small have had ponies have been very clever riders and drivers. They could, and no doubt will in time, be used in our cities to deliver all kinds of goods, even to quite heavy merchandise. Many men, otherwise almost helpless, could with a pony make a living by doing anything required in the way of removing goods. Ponies are used to a great extent in this way in Britain. We have imported and kept ponies for upward of twenty years and still have our first pony imported then. She has been very useful and we have raised some of the most useful drivers from her when bred to a trotting stallion. We have different times refused \$250 for a mare bred in this way. She is as good as we have ever seen. We have never had large numbers, having sold nearly always soon after we received them from Scotland. They have paid us very well. We like to do a little business in ponies as well as in any branch of our business, as in every transaction there is some little person made happy. I do not know that anything would be more profitable for many of our farmers than to have a few mare ponies and breed from them. They do not require very good keep, as they will naturally increase in size if well fed. One does not require any more feed than two sheep and they are very reliable breeders. The owner can count on \$50 from each

mare when the foals are fit to wean. They are old enough for small children to ride and drive almost as soon as weaned.

BY W. H. MILLMAN, WOODSTOCK, ONT.

The prices of ponies vary a great deal—from \$75 to \$150 for Shetlands. I have two ponies registered in the Hackney Stud Book (stallions), Cupid, three years, twelve hands high, winner at Royal Show, Windsor, England, 1889; 1st prize at Chicago, November, 1889; he is a black. Lord Man's, registered 2163, Hackney Stud. This is an extra cob pony, 12½ hands high; winner in Europe at several shows; 1st at Buffalo International Show, 1889, in a large class, over all hands. Of course these are extra well-bred ponies; few of this kind are imported. They are very valuable in cities for ladies and children. As a general thing they are very quiet and are easily broken. I have owned and broken a good many during the past four years and keep a pair for my own family. These I would not sell as they are very handy for us. My wife can drive them, also my little boy seven years old. I think they could be bred in Canada at a profit by farmers. Three will cost about as much as one ordinary horse to keep. Yes, there are a good many used in England and Scotland by children, and I believe a great many are used in the collieries hauling coal. I think the best pony is the offspring of a Shetland pony bred to a pony like Lord Man's. This gives them a little more size, smarter move and breedy blood.

#### Non-Breeding Cows.

BY F. GREEN, JR.

Some time ago a well-known breeder enquired what our practice was in the case of cows and heifers that would not breed, and at the same time remarked that he had met with very little on the subject in agricultural papers. There are few farmers but have had the unpleasant experience of owning some cows that will not breed, and in most cases they are usually, after several attempts, promptly consigned to the butcher, thus entailing a heavy loss, especially if they should happen to be pure breeds. The subject is one which would be more ably treated on by a veterinary surgeon, but as none have felt disposed to enter upon it, I will endeavor to give what information I have been able to glean, combined with our own practical experience. Non-breeders may be divided into two divisions, (1) barren cows, i.e., cows which, through some natural defect or malformation of the sexual organs, are incapable of reproducing their kind, and (2) cows which are temporarily barren. There is little doubt that many of the latter have been, and are still being, confounded with the former class, for Prof. Tanner, of Queen's College, Birmingham, England says:—"That from the result of the examination of the ovaries of several heifers which, after careful trial, had been condemned and killed as barren, he was strongly inclined to believe that such cows are comparatively rare, and that he believes that we have the conditions of successful reproduction very much under our own control, cases of legitimate barrenness being much more rare than we imagine, and he further states that he knows that animals which are naturally capable of breeding, can be rendered incompetent by adopting a special course of treatment." Such being the case one should not be too hasty in condemning a valuable heifer until every known remedy has been attempted. In the first place one should seek to ascertain what is the probable cause of the sterility. At times it arises from either the males or the

females or both being kept in too high flesh; another cause is an enfeebled condition of the breeding organs. Instead of the females breeding in a regular manner they come into season again and again after most irregular intervals. This results, says Prof. Tanner, from one of the following causes, either the female does not become impregnated, or else the embryo is imperfectly developed. The non-impregnation of the female may generally be traced to an excessive fatness in one or both animals, and an absence of constitutional vigor, the breeding powers being most energetic when the animals are in moderate condition, uninfluenced by extreme fatness or leanness. When the trouble arises from overfatness alone it can usually be remedied by reducing their condition by low keep and plenty of exercise, a dose of epsom salts administered a few days before the oestrus is sometimes of material assistance, while in others bleeding has been resorted to with benefit. As an instance of the success of exercise and change, I may quote the valuable cow Dodona, bought by the late Mr. Jonas Webb, from Lord Spencer at a moderate price in consequence of her being considered a non-breeder. After the purchase she was driven to her new home, a distance of 100 to 120 miles; in a short time she was bred and afterwards produced twin calves, and subsequently another calf, after which, as she ceased to breed, she was sold. A change of climate again brought her back into breeding, and at the time of her decease no less than 160 valuable animals could be traced to this cow, which had been sold on two occasions as barren. Many other instances could be given but space forbids. Again, highly satisfactory results have been attained by a thorough change of climate. When stock have been sent to hilly districts where the air is bracing they have to take plenty of exercise. Barrenness occasionally arises from too close relationship of blood, or from both animals being deficient in constitutional vigor. Frequently the evil is occasioned by the mouth of the womb becoming almost or completely closed, occasioned by too high feeding or other causes, and until this is remedied it is of course impossible that the animal can breed, but our own experience has shown us that the obstruction can be removed without danger, and that, provided the breeding organs are in a healthy condition, the cow with very few exceptions becomes a breeder. It is of course well nigh impossible for one not skilled in veterinary science to ascertain whether a heifer is or is not a total non-breeder. Our own practice, which has the merit of simplicity, may be of some advantage to other farmers, and in most instances it has proved successful. In the event of a heifer not breeding after several trials we (if possible) try another bull, while, if she is in heavy flesh we reduce it and administer a dose of salts; should this not avail we examine her when she is in season and if, as nine times out of ten, we find the orifice to the womb is closed we open it gently and gradually until one can insert one's fingers in the same manner as one takes a mare; she is then again bred, and if she does not hold at that time she usually does at the second or third time following. With regard to cows breeding we have found the following results which may be of interest. (1) That where the osuteris is not exactly opposite to the entrance to the vagina there is considerable difficulty in getting the animal to breed. (2) That cows and heifers, as well as mares, are not apt to become pregnant immediately after being turned out to grass or immediately after being taken off grass.

**Ayrshire Cattle.**

In our June number we gave a very interesting article on Ayrshire cattle, written by Mr. Wm. Rodden, the President of the Ayrshire Importers' and Breeders' Association of Canada. Before this date we had made preparations to issue a number of articles on this breed. In the Dominion of Canada, as in Europe, we have a great diversity of soil and climate. The commercial conditions and the wants of our people vary very much. Because of these conditions a certain breed will be found more profitable in one locality than another breed, while in another section, possessing a vastly different soil or subject to different conditions, it may not be a desirable kind to keep. Canadian farmers should consider these facts more than they do and be guided by them in selecting stock of all kinds. We believe it would be interesting and profitable to our readers to know

**HOW AYRSHIRES ARE VALUED IN BRITAIN.**

Mr. James Buchannan writes as follows concerning them:—

"This heavy-milking and hardy breed of dairy cattle is well suited to the soil and climate of Scotland, where it has been long established and is highly valued. Small in size, short in the legs, and with fine, clean bones, Ayrshires thrive and give a fair share of milk where large and less hardy cows would scarcely live. In the south and west of Scotland where large cheese-dairies are kept it is a rare thing to find any other breed of cows used, and the knowledge of this fact enables us to appreciate the justice of Mr. Scott Burn's remark, in one of his books on the Dairy, &c, where he says: 'For dairy purposes in cheese districts the Ayrshires are justly celebrated; indeed, they seem to possess the power of converting the elements of food more completely than any other breed into cheese and butter.'

"Little is known as to the manner in which this favorite breed was first brought into or bred in Scotland, but it is generally believed that the cows from which they and Shorthorns are descended were the country cows belonging to the district between the Wear and the Tees; and it is probable that some of these cows—which were famous for being good milkers more than a hundred years ago—were bought by Scotch dealers or drovers when returning to their own country, after disposing of their 'drives' of black cattle in England. The mothers of the milky herd being thus introduced into Scotland, there is good reason to believe that bulls of the West Highland breed were used for crossing, for West Highland cows are to the present day good milkers, and we often see a brindled bull or cow of the Ayrshire breed; but, above all, in the size and shape of the horns of a true Ayrshire there is clear evidence of West Highland blood.

"Great attention and care have been bestowed on the improvement and development of this valuable breed of dairy-cattle during the last thirty years in Scotland. An Ayrshire Herd-book has been established, milking competitions, and of late years an annual exhibition of cows called the 'Ayrshire Derby.' This has brought large numbers to the county from which these cattle take their name; and the competition for the thirty-five prizes offered in the 'Derby' is very keen indeed.

"Large numbers of Ayrshire cows are annually bought and sent to England, Ireland

and the United States of America, and the breed is rapidly rising in favor in all those countries, for although they are profitable on poor and inferior pastures, they are much more profitable where grass is rich and plentiful. The returns from individual cows, and from whole dairies of this breed, have frequently been published in the agricultural papers, and from these statistics it is easy to understand why many tenant-farmers and dairymen are anxious to obtain cows of so profitable a kind. The first cost in Scotland being much less than what is paid for large cows, and the fact that a considerably larger number of the small cattle can be kept on a given acreage, induce many men to give the northern breed a trial, especially where milk is the chief desideratum.

"At a Scotch show thirty years ago judges of Ayrshires looked chiefly to very fine bones, thin, soft skins, small deer-like heads and necks, narrow muzzles and prominent eyes, and these points, with large, well-shaped udders (about which the same opinions still hold), were, and are, sure indications of great milking powers. But it began to be felt that more stamina and stronger constitution were desirable, and therefore, at the present time, a cow is thought more of for having a thicker skin, if soft and flexible, stronger bones, and the horns need not now be thin and fine; and if a cow has a light fore end, with a clean, well-veined neck, judges like to see her with a good covering of flesh, believing that although such a one will probably give no more—if as much—milk as her prototype of thirty years ago, yet the thicker and stronger cow is to be preferred, because her appearance indicates strength and hardiness, with a proportionate capacity for resisting sickness, and an improved aptitude to fatten.

"In Cork and Kerry the Agricultural Societies have endeavored to promote the importation and breeding of Ayrshire cattle by offering special prizes for them. In Kerry, particularly, the Agricultural Society there (which is one of the most flourishing of the kind in Ireland) fully recognizes the importance of the breed. One of its members, an extensive land agent, imported a number of Ayrshire bulls for the use of the tenantry on a number of the estates for which he is agent. Lord Ventry also imported and bred some excellent specimens of the breed; while an extensive farmer has informed me that he intends keeping no other breed of dairy-cows on the two farms he occupies in that county.

"When the Royal Agricultural Society of Ireland visited Tralee, there was a fine show of Ayrshire cattle, and although the competition in the cow class was very strong, the cow which was awarded the first prize had been bred and reared in the country."

**WHAT CANADIAN BREEDERS THINK OF AYRSHIRES—THE INTRINSIC VALUE OF AYRSHIRES.**

BY D. NICHOL.

I have been breeding them to some extent for twenty-seven years, although I have never possessed more than thirty-two at one time. I have raised and sold a number of fine animals. I prefer them to any other breed. I supply city dealers with sweet milk, cream and skimmed milk, all of which must be of good quality. So far I have succeeded in giving satisfaction. I keep cows for strictly dairy business and only good, business dairy cows suit my purpose. I

believe they are the most profitable breed for me to keep. I know that with other breeds there are some phenomenal cows which produce enormously, but I also know that with these breeds one cow differeth very much from another as regards productiveness. I have good reason to believe that there is no breed nearly as uniform in this respect as the Ayrshires. I thoroughly tried the general purpose cow with very unsatisfactory results. Eighteen years ago I hired for a season a first prize Shorthorn bull of fine symmetry to cross with my Ayrshires with a view of increasing their size. In that matter I succeeded well. Out of nine calves four were heifers, which I carefully raised to be very handsome animals. I also trusted that in productiveness they would, when matured, at least equal their dams, but in this matter I was woefully disappointed, for although they gave good milk lavishly for two or three months after calving, they, in spite of all efforts to keep them milking, dried up in less than seven months, hence the average annual yield of each cow was only about 3,500 lbs of milk, consequently I was obliged to sell them to the butchers when five years old, realizing less for the beef than it cost me.

I had something of the same experience with Polled-Angus, and have been forced to the conclusion that the Ayrshires as a strictly dairy cow cannot be made more profitable by the intermixture of the blood of any other breed now in existence. With a matured Ayrshire cow properly fed there is no difficulty in obtaining annually 6,000 pounds of good, marketable milk. That is only an average of 20 pounds per day for ten months. I could show you some cows that have not been dry for six years. These are more profitable than any other breed in sections of country where dairying can be made more profitable than beef production, as is the case in Eastern Ontario and all the Eastern Provinces of the Dominion.

Hardiness and healthfulness are two of the qualities they possess in such a remarkable degree which makes them so peculiarly adapted for the business for which they have been specially developed. I have never exposed any of my cattle to intensely severe weather, therefore cannot say exactly what they may be able to endure, but from what I have learned by observation I have no hesitation in saying that, with the exception of the West Highland, a Scotch breed, they are the hardiest of all breeds. I have never seen an unhealthy Ayrshire cow, except some which, being too highly fed just before calving, have been taken off with milk fever.

Additionally, permit me to say that from among the common cattle of the country, although a very large majority of them are poor producers, there may be selected some remarkably useful dairy cows, which, if their pedigree is good (I mean if their dam and grand-dam have been good milkers), can be made to produce good dairy stock by being bred to a pure Ayrshire bull. In the Province of Quebec I have seen many grade Ayrshires doing good business in the dairy. Many more things I would like to say but I know you dislike long articles.

**THE AYRSHIRE AS A DAIRY COW.**

BY JOSEPH YULL.

Great difference of opinion exists as to the origin of this valuable dairy breed. Aiton tells us that in the beginning of the 17th century the

cows in Ayrshire were a small, shapeless, inferior breed of cattle, few of them giving more than six or eight quarts of milk per day, and when put to beef they seldom weighed over 400 lbs. In color they were mostly black with white faces and a white stripe along their back. Mr. Howard tells us that about the middle of the 17th century a gentleman by the name of Dunlop brought several cattle of the Teeswater breed from England. These cattle were large sized and great milkers. Whether the Ayrshire cow is directly descended from the Teeswater breed or whether there was any other breed imported to cross them with or whether they were crossed with the native cattle of the country is not definitely known. One thing certain is the improvement must have been very rapid, for Mr. Farrel, writing in 1775, tells us that the improvement was simply marvellous. And in the year 1788 the Laird of Dunlop presented the Poet Burns with a two-year old heifer, said to be the finest quey in Scotland. And again, Rawlin, who wrote in 1794, in speaking of the Dunlop cows says they were the greatest cows to yield milk of any breed in Great Britain or Ireland. The Ayrshire cow was introduced into Canada almost with the first settlers. They were brought out in vessels to supply the passengers and their families with milk during their long voyage and on landing were eagerly sought after by farmers living near Montreal and Quebec. I will now proceed to show some peculiarities of the Ayrshire cow which renders her the best dairy cow for the Canadian farmer. She is very docile, being easily petted. She has a very strong constitution. She is very thrifty, being able to gain a good living where most other breeds would starve. They will give more good milk from the same amount of food than any other breed. The following are five points essentially necessary in a good dairy cow, no matter of what breed she is, and I think the Ayrshire fills the bill fully as well as any other breed:—

1. A large udder is of elastic quality.
2. A soft, mellow, movable skin.
3. A large, roomy barrel.
4. Long, broad rumps and thin hips.
5. A fine, tapering neck, with clean cut face with large, prominent eyes.

I think I will be able to satisfy the most skeptical that the Ayrshire cow has fully sustained in Canada the reputation she has gained for herself in her native land. I will now try to show you how she succeeds when in competition with other breeds.

In the year 1882 W. Weld, Editor of the FARMER'S ADVOCATE, offered \$100 for the best five cows for general purpose and profit at the Provincial Exhibition held at Kingston. The owners were required to give an account of their doings for the last year. This account was taken into consideration by the judges in making their awards. This prize was awarded to five Ayrshire cows owned by Thos. Guy, Oshawa. And in the same year an Ayrshire cow owned by the same gentleman took first place at the Toronto Industrial. And in 1884, at the Industrial held in Toronto, the first prize in the milk test was awarded to an Ayrshire cow, also owned by Mr. Guy. And in the same year, at the Provincial held at Ottawa, an Ayrshire cow, owned by James Drummond, Montreal, took first for the best cow that had calved previous to the first of May. And an Ayrshire

cow, owned by the same gentleman, took first for the best cow calved after the first of May; also an Ayrshire cow, owned by Jas. Callander, North Gower, took 2nd. In 1886, at the Dominion Exhibition held at Sherbrooke, Quebec, three prizes were offered in the milk test and all three were captured by Ayrshire cows. The 1st owned by Thos. Brown, 2nd by James Drummond and the 3rd by Thos. Ervin, all of Montreal.

In the year 1887, at the Grand Dominion Jubilee Exhibition, held at Ottawa, the sweepstake for best milk cow of any breed was awarded to an Ayrshire cow owned by myself.

In the summer of 1884 Professor Brown conducted a test of dairy cows. He commenced his test with eleven different breeds, but before he concluded the test he had discarded all but three, namely, the Ayrshire, Jersey and the Holstein. For weight of milk the Holstein took the lead and the Ayrshire next, and for quality the Jersey took first and the Ayrshire second, and when it came to quality and quantity combined the Ayrshire took the lead. And to make it still plainer, so that any person could understand it, he showed the value of the different cows' milk for a certain length of time. While the Ayrshire cow gave 6,000 lbs. milk the Jersey gave 5,000 lbs., and the Holstein gave 7,000 lbs.; the Ayrshire cow's milk was worth \$47.00; the Jerseys was worth \$46.00, and the Holsteins was worth only \$22.00.

In conclusion, let me say that I could easily have collected still more evidence to show that the Ayrshire cow is not only the best dairy cow in Scotland, her native country, but that she stands unrivalled as a dairy cow in Canada. Since the year 1882 she has come out ahead no less than twenty times. What we claim is that the Ayrshire cow is the best dairy cow in the world, under ordinary circumstances, with such treatment as the Canadian farmer generally gives his cows. She is a very reliable breeder. This is a very great advantage to the dairyman when he can depend on his cows coming in at a certain season of the year. She is also very prolific. I will give you one instance: H. E. Eyre, Esq., of Harlem, purchased a heifer calf from me which gave birth to a calf at two years old and another at three, and in the spring of 1889, a few weeks before she was four years old, she presented her owner with a beautiful pair of twin heifers. Last fall, at the County of Leeds Agricultural Exhibition, the cow and her four heifers took five prizes against strong competition.

We do not claim for the Ayrshire that they are a beef breed, but if bred for that purpose their beef qualities would soon improve for they are good feeders. I will give you my experience with them as beefers: In the year 1881 I killed, "off the grass," a four-year-old heifer which proved barren. She dressed 775 lbs. beef, 120 lbs. tallow and her skin weighed 73 lbs., and last summer I milked an Ayrshire cow till June; dried her off, and fed her on grass alone, and in competition with other breeds she took 1st at Kingston, 2nd at Ottawa, 1st at Renfrew, and 1st at Almonte for beef. About the beginning of December I killed her, she weighed 650 lbs. beef, 112 lbs. tallow and her skin weighed 72 lbs. Last fall I killed an Ayrshire cow that was 19 years of age. The beef was good.

A few good sales of the produce of a stallion will do more to raise a horse in the estimation of breeders than anything else. Owners of stallions should make a note of this.

### Berkshires vs. Yorkshires.

BY WILLIAM DAVIES, TORONTO.

In your July number appears an article on Berkshires versus Yorkshires by Mr. Benjafield, Dorsetshire, Eng., and I ask space to reply. That gentleman characterizes my letters on the above subject as "mis-representations" and my style as "bitter." This I deny in toto and appeal to your numerous readers, not fearing their verdict; but what shall we say of the person who thus denounces my writing, and then proceeds to characterize his opponent's statements as "vile assertions," "libels," and "wild unscrupulous and vindictive outbursts of prejudice." But, now, to the subject. Mr. Benjafield and other breeders of Berkshires contend that they are par excellence, the pig suited to the wants of pork packers, while we bacon curers dispute this, contending they are too fat, I presume. Mr. Benjafield will be proud to admit that pigs in all large hog raising countries are more indebted to Berkshires for their improvement than to any other breed. I should suppose from a general knowledge of the subject that Berkshire boars have been kept in the ratio of five to one of any other breed, and probably five to one of all other breeds, and as we pork packers are at our wits end to get pigs lean enough to suit our customers, is it not clear to any impartial person that we are indebted to the Berkshires for the fat hogs, the product of which we do not know what to do with, for every year, and I might say every month, consumers become more exacting and clamorous in their demand for lean. We are paying regularly a much higher price for long fleshy hogs, about 170 lbs. alive, than for fat hogs 220 lbs. Is it to be credited that we do this for fun, or as Artemus Ward would say "pure cussedness."

Mr. B. intimates that Messrs. Harris & Co., of Calne, Eng., speaks highly of the Berkshires, and that they and other bacon curers offered prizes for the most suitable bacon hogs, one of which was taken by Berkshires and White Cross, a pen of ten pigs, and the first prize for the pen of five by Berkshires. This I do not dispute. Neither my firm or Harris care what breed they are if they fill the bill, and without doubt some young Berkshires suitably fed can be made to meet our requirements, but you will note that the first prize for ten went to cross bred, which is just what pork packers recommend. But I have before me an article by Thomas Harris, one of the firm Mr. Benjafield swears by, in which he says:—"Years ago the Berkshires was much more valuable, but fashion has spoiled them, and breeders will have to alter the present standard if they wish the bacon curers to recommend this breed to the farmers. The middle and small Yorkshires have the same fault as the Berkshires carried to a much greater extent." Further, he says:—"The principal, and I consider the best breeds of pigs, are the Berkshires, Yorkshires and the Tamworths. The first are beautiful animals and everything that can be desired except that most important point leanness."

If I were writing as a breeder of Yorkshires only partiality might lead me to advise farmers to breed and feed the Improved Large Yorkshires, but my interests as a breeder are infinitesimal compared with my interests as a pork packer and bacon curer. Hence, I again urge farmers who read this to cross their ordinary

sows with a Yorkshire boar, and I also urge and advise them to raise and feed twice as many as they ever have done. The demand for mild cured lean meat increases every day, and whatever else is a drug on the farmer's hands prime small hogs are and will be in active demand.

**Berkshires vs. Yorkshires.**

I rejoiced to see in your estimable magazine for July a letter from Mr. N. Benjafield which is said to have been written because he saw in your April number "one of my productions." The said productions appear to have so irritating effect on Mr. B. that he does not permit himself to give a direct reply to them, but vents his spleen on the devoted head of Mr. William Davies, whom he most unfairly charges with "misrepresentation of Berkshires," and more strangely still with "bitterness of style." I was innocent enough to think that if two estimable points were more particularly noticeable in Mr. Davies' letters than any others these were his fairness and his courtesy. It is true that Mr. Davies had, in giving his experience of Berkshires, to give facts not in favor of these pigs, and he also had to reply to or to suffer from attacks on his bona fides or his disinterestedness.

Mr. Benjafield writes that "he wishes to flatly contradict the statements of your various correspondents that Berkshires are short in the back, too fat, too coarse in the shoulders, too light in the hams, overdone with offal, merely fit to raise stock suitable for mess pork whose destination is the pine woods, where lumbermen can eat blubber, that the best curers have quite thrust them aside as totally unfit for the bacon trade, &c." Well, for my part, he is perfectly welcome to flatly contradict many of the so-called statements when your correspondents are silly enough to make them. It is scarcely necessary to repeat what has been written on the failings of the present style of Berkshire, but Mr. Benjafield will mislead no one but himself when he puts into others' mouths stupid statements to which they have not given utterance, nor will he do his cause much good in the attempt.

Mr. Benjafield says "that Berkshires will thrive where white pigs would almost starve." Will he give us proof of this assertion, the truth of which I have not experienced, and I have done a little pig breeding during the last thirty years? My reasons for giving up the Berkshires were that they reared too few pigs, grow too slowly up to six months old, were not good pigs for bacon curers, and that when the boars and yelts were old enough to sell for breeding purposes no one wanted them. My experience with Improved Yorkshires is exactly of the opposite kind, as I have this year already sold three hundred and forty-five boars and yelts, besides winning seventy-nine prizes worth £296 in eight days, or at shows all held on one or more of the eight days at one time, so that the same pigs could not be shown at the other shows held the same week. I might add that this is the largest number of prizes and of the highest value ever won in England by one exhibitor, and what is of more importance everyone of the pigs I showed was bred by myself, not, as is so common in England, bought at high prices all over the country.

Mr. Benjafield says that the best bacon curers in this country do not object to Berkshires.

What does he call the Harrises, of Calne? Does not this firm occupy, and has it not for years occupied, one of if not the very highest positions in this country? Why did they commence a crusade against the fashionable Berkshire and declare it totally unsuited for the curers purpose, and why did they recommend the Improved Yorkshire? What is the use of quoting the views of one or two curers who are in a district where comparatively few good Yorkshires have been found, but where numbers will soon be bred. On the 26th ult. I received a letter from one of the largest salesmen of bacon in London in which was this paragraph:—"Yesterday I was at the ——— Bacon Factory. I recommended them to introduce your pigs to their farmers." This first-rate man of business had learned from handling some thousands of sides of bacon each week the breed of pigs which made the best baconers, and he knew also whose herd has for years supplied the right kind of pigs to command the highest price when converted into bacon. It is a curious circumstance but the very Mr. Richley, of Corbridge-on-Tyne, whom Mr. Benjafield brings forward as a witness in favor of the Berkshires, has for the last two years been building up a herd of Improved Yorkshires mainly of my strain; the last sow I sent to him, Holywell First Choice (2308), was only farrowed on April 26th, 1889. Of what use is the evidence of the pork salesmen in the London Central Meat Market where the highest price is made of small porkers of about 70 to 80 lbs.? Again, why do foreign curers from all countries buy Improved Yorkshire boars to distribute? On the 26th ult. I had a letter from a Norwegian gentleman who had just returned from his country asking me if I could supply him with 20 to 30 boars such as the manager of a curing establishment being started at Christiania saw at Holywell when he was here, and yesterday I had a telegram to forward the first nine of the consignment. On the same day I had a letter from Mr. Magnus Kjar, about the oldest bacon-curer in Denmark, asking for 30 young boars such as he had two years since from here; and today I have a letter from a Danish gentleman who wishes me to send 10 boars to him for distribution.

Facts such as these are of infinite value as compared with the assertions of Mr. Benjafield, who cannot produce evidence of seventy boars being sold from all the English herds during the last seven years to foreign bacon-curers, whereas I obtained orders for seventy of my Improved Yorkshires within a week. It is mere childishness to bring forward the fact that one or two prizes offered in a district where comparatively no good Yorkshires are kept, or where, as Mr. B. asserts, "quite 75 per cent. of the pigs are Berkshires," and, I might add, 20 per cent. black pigs of other strains are kept, that these few prizes were won by Berkshires. If I were to give instances where similar prizes have been carried off in other districts by pigs usually kept in those districts it would prove nothing of value. The question to be solved is, which breed of pigs pays the rearer and feeder the most profit and which breed makes the most money. Nearly all the civilized world declares the really Improved Yorkshire to be that pig.

SANDERS SPENCER.

In the month of June Great Britain imported of cheese 169,369 cwt., against 148,251 cwt. a year ago, including 84,047 cwt. from the United States (Atlantic ports), against 62,207 cwt., and 52,685 cwt. from Canada, against 47,965 cwt.

**"The Haras National."**

The stable of La Compagnie Du Haras National are situated at Outremont, about two and a-half miles north of Montreal, where may be seen many splendid specimens of Percherons and French Coach horses.

The Haras National Company is composed of French-Canadians and American capitalists, represented in Canada by the Hon. Louis Beau-bien, Montreal, and in France by the Baron E. DeMandat-Grancey, in Perche, whose farm is one of the best known breeding establishments in the land of superb horses. At Fremont, Nebraska, the Percheron and Arabian Importing Horse Co. have an extensive sale station where many powerful horses are annually sold to the enterprising western farmers. Near Buffalo Gap, South Dakota, ranging over 40,000 acres, the company own nearly 900 head of horses, including Percherons, Arabians and trotting bred stock.

The Montreal establishment, fourth in order of founding, is becoming the most important point in the business.

The stables of Outremont cost \$21,000; they are 155 feet long, 50 feet wide, and 60 feet high, being three stories, splendidly furnished inside, and provided with large, roomy and well-lighted box stalls. Among over 40 stallions, all thoroughly acclimated, we will speak more particularly of the three which appear in the illustration.

The first, a beautiful black Percheron, July 15168, standing fully 17 hands high, weighs 2,000 pounds; imported in May, 1888, and got by Myrama (15166), dam Garotte (15167); he has gained a most enviable reputation as a prize winner and a sure foal getter, showing to an eminent degree those prized attributes of the Percheron as a breed. He won diplomas and first prizes when two and three years old at Ottawa, Sherbrooke and Hochelaga, P. Q., and is now four years old.

Roi De Bignon (1499), dapple grey, 16 hands high, weighing about 1,600 pounds, got by Coco, dam Fanchette, is a Breton Stallion (Stud Book of the Agriculteurs de France). He has a splendid neck and a beautiful head; he shows grand action and is full of quality. He is six years old and won at Hochelaga two first prizes as the best heavy draft horse of any breed.

The Marquis De Puisaye is a grand French Coach horse. He is a beautiful bay, 16 1/2 hands high; his fine finish and quality is a proof of his excellent breeding, which is here given:—

Marquis de Puisaye won at Toronto as carriage stallion, three years old (no special class for French Coachers), 3rd prize, 1889; at La Prairie, 1889, 1st prize as French Coach, any size; at Sherbrooke, 1889, as three-year-old French Coach, 1st prize. Bay, 16 hands; weight, 1,500 pounds; foaled March 12, 1886; bred by M. Mauny, of La Cochere, Department Orne, France; got by the Government stallion Tigris, dam Enterpe; chestnut, foaled 1879; by Jactator, dam daughter of Tonnerre Des Indes; imported June, 1889, by the Haras National.

The Percherons have for many years been in great favor in Quebec Province and the sister Provinces have of late shown such interest in them that this Company anticipate disposing of a large portion of their importations in western districts. They intend to assist in the formation of local joint stock associations for the purpose of enabling farmers and others to purchase a stallion for their district, a system that has so far been very successful. Besides, the Company insure against death for a small annual charge, any horse sold. It is the only company in Canada which is willing to take this risk. The particulars of this plan, together with much information respecting French horses, is published in a catalogue issued, free of charge, on application at the company's office. In this catalogue they write as follows:—

"Both stallions and mares of extraordinary excellence are now to be seen in the stables of the

Haras. Their certificates of pedigree will promptly convince those who are acquainted with the Norman and Percheron Stud Books of their racial superiority. We cordially invite all connoisseurs in horseflesh to visit the stables, which have been pronounced without rival in the Dominion, and to there examine Percherons and Normans, and assure themselves by personal inspection of the truth of our assertions. At Montreal they will always find a carriage at their disposal to convey them to Outremont. (The office of the Haras is at 30 St. James St.)

"The Haras National was inaugurated May 10, 1890, by his Excellency the Governor-General, Lord Stanley of Preston, who, together with a large number of Senators, Members of Parliament and others had come down from Ottawa by special train and arrived at Outremont at 12.30. There were present Hon. L. Beaubien, Mon. R. Auzias-Turenne, Count De Sieyes, Baron De Poliniere, of Paris; Hon. J. A. Chapleau, Secretary of State; Hon. Edward Stanley, Hon. L. O. Taillon, Hon. Senators Ogilvie, Girard, Perley, Casgrain, Cochrane, Howlan, Sanford and Thibaudeau; Messrs. Jas. Mackay, Ottawa; H. S. Foster, Treasurer Dominion Dairy Association; B. R. Woodward, President Eastern Townships Agricultural Association; Hon. Dr. Ross, Col. Panet, representing the Minister of Militia, etc., etc. Over eight hundred invitations had been issued.

"His Excellency remarked that 'this establishment would open up an important industry for the Province, and he wished the projectors of it every success.'"

#### Railway Companies and Fair Associations in Relation to Stockmen.

BY J. Y. ORMSBY.

Read before the Swine Breeders' Association of Canada.

The subject to which I am about to draw your attention is the position which we, as breeders of pure-bred swine, hold towards the managers of the various Fair Associations and also towards the two great railroad corporations which practically control the whole railroad system of Canada.

I may say that my principal reason for bringing this subject before you is that I do not consider that we are receiving the amount of consideration due to us from either the railroad companies or the Fair Associations, and I shall now briefly place before you my ideas on these points, both as to what are the principal disadvantages that we labor under and how these disadvantages may best be overcome.

With regard to the Fair Associations I think the worst trouble that we have to complain of is the system of selecting judges now in vogue. According to the present system, the judges at the different fairs are selected by the directors. They are asked to give their services for nothing, and in most cases to pay their own expenses, the result being that in very many cases we find a man selected who absolutely knows nothing about the stock he has to judge, his sole recommendation being that he is a friend of one of the directors, and, according to that gentleman's account, a good judge of pigs. Now, gentlemen, I contend that being a good judge of pigs in general does not for one moment render a man capable of going into a ring of pure-bred pigs of any particular breed and judging them, for if it does, we may as well do away with our different classes for different breeds altogether and show all the breeds together, and let one of these good judges of pigs in general judge the whole lot by his standard of a good pig.

Let me ask here what would be thought of a

Fair Association that would select a man who had never handled any sheep but Cotswolds to judge Southdowns, or a fancier of Ayrshire cattle to judge Shorthorns, and yet, because a man has bred some good Berkshires, he is thought quite capable of judging Poland Chinas and Yorkshires.

Now, surely this must be wrong. Every distinct breed of hogs, as of horses, sheep and cattle, has its own distinctive features or points, and until we get men as judges who are capable of going into the ring and judging our pigs by their points, we shall never in my opinion get anything like satisfaction in the show ring, and the only way I can see to get such men as judges is for the fanciers of each breed or swine to meet together, select a number of men, who are, they are satisfied, capable of judging the breed they represent by its own scale of points, and declare these men fitted in their opinion to act as judges on this particular breed. Then let a list of these men be sent by the Secretary of the Hog Breeders' Association to the secretaries of the various fairs, with a request that they choose their judges therefrom.

Another point to which I would draw your attention is the persistent way in which the Fair Associations ignore the existence of herd books among pig breeders. On looking over the prize lists of the principal fairs in Ontario I fail to find one case in which registration in a herd book is mentioned as necessary.

Now, gentlemen, if it is necessary that a Shorthorn, or an Ayrshire, or a Devon cow be entered in her respective book to insure her purity of blood, why, I ask, is not a similar stipulation made in the case of a Berkshire, a Yorkshire, or a Suffolk pig? If the fanciers of these breeds of swine see fit to have a herd book in which to record their stock, it seems to me that Fair Associations, which are ostensibly formed to promote the breeding of pure-bred stock, should do all they can to support such herd books, and to insure, by the fact of registration in them, the purity of pigs shown as representatives of the various breeds.

Before leaving the subject of Fair Associations, there is one point that I feel needs your attention, and that is the need there exists for better accommodation, both for ourselves and our stock at shows.

Pigs are not the easiest animals to drive, and I certainly think whoever inaugurated the principle of building pig pens in parallel rows, with narrow alleys between, open at each end, deserves very little thanks from pig breeders and exhibitors; and I would suggest that, in view of the necessity that will soon exist for more accommodation for pigs at the Industrial Fair, the attention of the Fair Association be drawn to the advisability of erecting any new pens in the form of a rectangle, with an open space in the centre for exhibition purposes, and also of providing space above the pens where bunks can be placed for the attendants to sleep in.

With regard to the accommodation that we receive from the railroad companies, while I am willing to allow that they have made a certain amount of concessions in our favor, still I do not think they have gone far enough in that direction.

As the thing stands now we pay full car rates to the first fair that we attend, and then half rates to those following, with a free return home from the last fair to the place we started from. This is all very well, but I find the trouble is that we are only allowed one attendant to each car, and if we send more, which we are compelled to do, for no one man can attend to a carload of valuable stock, we have to pay full rates for them. It is true that a special rate is given on production of an exhibitor's certificate, but under the present conditions this is almost useless, as it almost always happens that our stock in order to arrive in time at a fair has to leave home before the date on which this special rate comes into force.

Drovers travel for a cent a mile. Now, surely breeders of improved stock, to whose exertions

mainly the very trade in which these drovers are engaged owes its existence, may reasonably look for a similar concession in their favor, at any rate at a time of year when they use the railroads to as great an extent as they do at fair time.

I would therefore suggest that this Association pass a resolution asking the various Fair Associations of Canada to urge upon the railroad companies the advisability of granting to exhibitors, in addition to one free pass with each car of stock, tickets at the rate of one cent a mile for all attendants needed to accompany the said car, and also of giving a similar rate on passenger trains to all persons producing exhibitor's certificates during the fair week and the three days preceding.

Having now taken up a good deal of valuable time, I will close my paper with a hope that it may bear some fruit in gaining for stockmen some further consideration from the Fair Associations and railroad companies of Canada.

#### Horse Breeding in Canada.

Formerly the Hackney horses as used in England were recognised as horses for work on the road. Whatever other qualities he had it was necessary that he should have feet and legs of that wearing type that could stand, as the English groom with his pronounced provincialism gives it, the "ammer, ammer on the 'ard 'igh road." He was a horse for harness or saddle wherever hard or quick work was required; he was ridden to cover, to meet the hounds by the road or across the country as the case required, the hunter having been sent ahead by a groom, and if the hunter failed to turn up he took the field with the best of the hunters, and in many cases he was a hunter one day and hack the next. His power of endurance could be obtained only by good breeding, but it is more as a finished harness horse that he is recognised on this side of the Atlantic and it is only of late years that the Hackney has been freely imported.

With English equipages and English style of driving this English horse has naturally come to the front. The English Hackney, like the French Coacher and the American trotter, have all had their trotting actions improved by the Norfolk trotter. Lawrence says:—"The early English horses were improved by horses brought over by the Norse invaders, who had their strongholds in Yorkshire and Norfolk." However horse breeding was paid attention to in England at a very early date, for we read that Athelstan forbade the exportation of their best horses in the eleventh century. The best blood for hundreds of years was brought from abroad; in the long series of wars in which England was embroiled, every opportunity of selection was thus afforded.

The peculiarity of the action, as indicated by the name of Hackney, is the most important difference between him and the thoroughbred.

It is from the original native mares in this case that the trotting habit is derived, as this distinctive trait seems to have been a peculiar feature in the ancient breed. From very early times the trotters of Norfolk and Yorkshire were crossed with the thoroughbred Arabs and Barbs. Thus the Norfolk trotter, through long inherent good qualities, have proved particularly effective, and can claim quite as select breeding as the thoroughbred himself. Crossed with heavy mares, cobs of the highest action were produced; crossed with the thoroughbred he produced the modern English Hackney. Across the channel we find the same blood freely running in the veins of the French Coacher who carries himself in the same

incomparable style. Again, imp. Bellfounder and his descendants, such as Hambeltonian 10, Harry Clay, and others in the American trotting blood owe and display the same manner of going to this source.

As the modern English harness horse he is a combination of stylish action and attractive form, he must appear well from all points. Unlike the English Coach horse, which placed before the high heavy carriage or lighter brougham and driven by the coachman, this horse is all for side appearance. It matters not how plain he may appear from the driver's perch, he must have plenty of style in neck and head, as he moves with a slow and stately step. He is just the horse to draw the family carriage of the middle aged lady or old gentleman.

Far different is the high-stepping Hackney. He must be attractive from all points as he is driven by his owner. He must look as well from the driver's seat on mail phaeton or wagonette, as his brilliant action appears to those who meet him on the street or in the park, and while driving at eight miles an hour should show as though he were going twelve. As he draws special attention everything must be in perfect keeping. He should be well harnessed, showing any amount of spirit while going; he must look as well standing, his legs placed well under him, for our high steppers must be sure footed. His head is carried naturally and well. He is a horse essentially for pleasure, to be used by men of wealth or business men to drive back and forth from residence to counting house. The horse alike for the city swell or the girl of the period. He at once inspires life to the driver and those in the carriage drawn by him. The Hackney horse of past days was used for long journeys—he was more a horse for work than for pleasure. The advent of railways changed the whole requirements of the horse. Short distances to the railway stations, the park, the street—he has to appear in the most attractive form—therefore the high stepper, with probably enough work for exercise, will perform what is required of him, while for long journeys the highest steppers may not be so suitable as a horse with less sensational action. Horses are required to have the same attractive paces for dog cart and tandem teams, or our now popular box carts. When driven single the horse makes the whole display in himself, as there is nothing about the vehicle and appointments which does not derive its appearance from the horse and his manner of going. Just what the thoroughbred has been in improving the quality and endurance of our horses for saddle and harness purposes this breed of Hackneys should accomplish in bringing up the appearances of our horses. We have scores of mares with breeding and endurance and other good qualities that go a long way towards making good carriage horses, but they lack attractiveness in their gaits. In trotting we have been accustomed to see our horses ape the action of the fast trotter, which is for speed. The long quarter, the thin stifle and shoulder, which is quite appropriate for the skimming along the road motion, which in the trotting horse has been developed. This is just as much out of place for an attractive turn out as the high stepper would be for the race track. The Hackney stallion should work wonders in the much needed line of improving the style of going in our horses. A stud book for this horse has been started of late years in which the breeding is as carefully recorded as in any other, and the Hackney is likely to become as popular in Canada as he has been in his native home.

**Horses.**

The breeding season is now well over, and looking back on what has taken place in agricultural circles in the last twelve months let us ask ourselves what lessons we have had taught us in this line of stock breeding, and also whether we have taken advantage of these lessons in a practical way, and I am afraid the conviction that will be forced upon us will not be altogether a satisfactory one; for while I am very willing to give our farmers credit for every move they make in the direction of better stock, and more of it, I am afraid in the line of horse breeding we cannot, on careful consideration, find that any decided move has been made for the better within the last year. That the course of events in the past as been such as would lead us to expect such a move no one can deny, and the fact that it has not taken place, at least to any noticeable extent, I think goes some way to prove the truth of the assertion made by me in a former paper, viz., that a large proportion, if not a majority of Canadian farmers, are more inclined to lay the blame of hard times on "that wicked Sir John and the N. P.," than they are of trying to find out the real cause of poor crops and low prices and whether they have not a remedy for them in their own hands; but as this may be deemed by some to be a somewhat libellous statement let us glance for a moment at the events of the last few months and see what reasons I have for making such an assertion.

That the day of grain raising has gone by is a fact that certainly has received stronger confirmation than ever, for while grain crops all over Ontario last fall, as a rule, showed a very light yield, prices have been as low as ever, and the question therefore now before us is, Can this deficit in the returns hitherto received from the sale of grain be made up in any other way? and if it can do the events of the past year warrant us in believing that part of this deficit can be made up by horse breeding? To both of these questions I answer most unhesitatingly "Yes," and when I say "yes" I mean "yes," and I shall stick to it in spite of my friend Smith from the back concession, who says "he don't believe there is any money in horses, any how, for he sold his brown five-year-old for \$90 last month and Pete Brown and Job Robinson couldn't sell their's at all, and now those blamed Yankees are putting on \$30 a head duty, and who can blame them, any way, when that old tough, John A., won't give us reciprocity, &c." But hold on, Brother Smith, for a moment or two. What about your neighbor Watson who sold a bay two-year-old colt for \$150 and was offered the same for his two-year-old Shire-bred filly, but refused it? What did you say? Some fellows always do have tarnation good luck, any way. Oh! yes, but you did not call it good luck when Watson paid \$16 for the use of an A1 imported horse, and you and Brown and Robinson used that mongrel little Canadian bred at \$6 to insure, because a foal was a foal, any how, and you were not going to pay such all-fired prices to any man. No, Watson was a fool according to you then and would never see his money back. Let me ask my reader which principle he followed out last May and June, that of always breeding to the best male to be got, even if it did cost an extra \$5 or \$10, or that of pretending to believe one horse as good as another and consequently using the one that cost the least. I am afraid a

good many of the readers of the ADVOCATE whom I know well will have to confess to having followed the latter plan, and more than that, will try to justify themselves by declaring, like our friend Smith, that they cannot make a cent out of horses for they cost more to raise than they sell for. Now, let us look the question fairly in the face and see whether such a plea is justifiable.

In the first place, is there any truth in the assertion that there is no money in horses? Well, I think there is a great deal of truth in it, for I honestly think that at the very least one half the farmers in Ontario are raising colts today that will never pay for their keep. But if you ask me, on the other hand, Can money be made out of horse? I would say, most certainly it can, and if you want proof of it go down among the farmers of Scarboro, Vaughan, Markham or Pickering and ask them do their horses pay them; or slip into Grand's, in Toronto, and ask Mr. Grand what prices saddlers and carriage horses fetched at his sale last April.

What, then, is the reason we are told so often that there is no money in horses? Simply this, these men who are kicking so about horse raising are breeding either a class of horses that are very little use to themselves or to any body else, such horses, for instance, as you may expect to get when you breed a common Canadian mare, weighing say 1,100 or 1,200 lbs., to a little Canadian trotting stallion, standing 15 to 15 2 hands high and weighing about 1,000 lbs.—a miserable little cathammed brute that would not make a decent gelding and whose only recommendation is that he can trot a mile in four minutes, or, perhaps, even three and a-half; or else they are breeding a class of horses the market for which, while they undoubtedly are far superior to the last mentioned, is very limited and has been overstocked for some time past—I mean general purpose horses. But that there is good money in breeding the right class of light horses was very apparent last April to any one who attended Grand's sale, for while there were numbers of such horses as I have just referred to, viz., small, ill-shapen roadsters and general purpose horses taken away unsold or else knocked down at what could never pay for raising them, anything in the shape of a decent saddler, carriage horse or cob that showed even moderate action was quickly snapped up at prices ranging from \$175 to \$520, and a very significant fact is this, that almost all these horses were bought by American buyers from Boston, New York and Rochester, showing conclusively that while Americans do not want our roadsters, and very little wonder, when they have a very much superior class bred in their own country, they do want and are willing to pay good prices for light horses of an English type, provided they are sound and show lots of breeding.

I cannot therefore urge too strongly on our farmers the necessity there is for their leaving entirely alone the miserable little trotters that are swarming throughout Ontario today; it will take years of careful and patient breeding to undo the mischief that has been done already by these horses. And while it is very apparent to any one who has carefully watched the light horse trade during the past two or three years that there is a splendid trade in saddlers, carriage horses and cobs awaiting our farmers if they can only be persuaded to breed such classes of horses; it is equally apparent that unless our farmers make up their minds, once and for all, to patronise a better class of light stallions this trade will gradually slip through our fingers. There is an old saying that "you cannot make a silk purse out of a sow's ear," and in the same way you cannot breed a good saddle or carriage horse from a little, cat-hammed, droop-rumped trotting stallion.

BLUE BLOOD.

[TO BE CONTINUED.]

### Sheep Breeding a Profitable Industry.

BY ALDERMAN FRANKLIN.

Read before the Canadian Sheep Breeders' Association.

Why not followed in Ontario to a greater extent? Grain crops don't pay, and cattle are not as high as they were, yet the Canadian farmer realizes three-quarters of a cent more for his fat cattle per pound than the feeders of the United States.

Sheep are high, and indeed very scarce, but a man may travel all through Ontario for a year and he will never see from out of a railway window 100 sheep in a flock; if he does they are the collection of some drover who has collected them together in twos and threes awaiting shipment to some market. Of late years, owing to the higher price of Down wools, the use of rams of the larger Down breeds upon the Leicesters and Cotswold cross that constitutes the common sheep of the country, has been prevalent, and we must admit there has been an improvement both in mutton and fleece. All, however, are bought up to leave the country and our stock is short. Our farmers should turn their attention to sheep, for sheep demand only little, and very light attendance. Two hundred sheep can be cared for as easily as twenty cattle in the winter; they should have the run of big pens with constant access to an outside run, for sheep, more than any other animal, must have exercise and fresh air, be it ever so cold. They don't like damp weather, but cold weather they do not mind. There are no stalls to clean out, no chaining and unchaining, no milking, no conveyance of milk to the factory. The litter of a sheep pen need not be moved until the spring; they get higher, but no harm is done, and it is the best manure a farmer can put on his land. In summer it is easier to move 200 sheep from one enclosure to another than two head of cattle; they follow readily, and there is no racing about after them. It is calculated that seven sheep eat as much as one bullock oats in five months, whereas the sheep's tread is known as the "golden foot." Our natural June grass or wild pasture is exactly suited to them, and they only want an occasional top-dressing and chain harrowing to make as good and close a sod as is found in Hampshire or Sussex. If farmers would become flock-masters they could do with half the fencing, and sheep follow cattle to great advantage. The "big bite" of grass in early June can be fed off by cattle, finished with some meal on the grass; the sheep follow and bite closer and like a short nibble. They should be driven from one pasture to another at least once a week, for they hate the ground that has been stained by their own species. Then see how quickly they come into profit. A good Down cross will clip 10 lbs. of wool when a year old, and at the same time next year will have one or two lambs and another fleece to dispose of. There is nothing on the farm that pays so quickly or so well. Here we are, free of the diseases that decimated the flocks of England. The liver-fluke and the rot are comparatively unknown as is foot rot, all of them being plagues resulting from them being too thick on the ground in the Old Country. All that we have to guard against is contained in the old legend "Beware of the Dog." I believe this is a principal reason why more sheep are not owned, and the township laws allowing a proportion of

the value for worried sheep is not a method of compensation but makes up for the risk. It is a terrible risk and few owners have escaped heavy loss from this source; but surely it is avoidable if proper precautions are used. Opinions will differ as to the breed of sheep to be adopted, but I am not speaking of the sheep breeders and importers who have select breeding flocks and sell for fifty dollars a head. What we are talking of is why should not flock-masters of 300 or 400 good mutton sheep take the place of the scraggy, wretched, half-dozen crosses that one sees around the outbuildings of most of our farmers, and from which the itinerant drover has to procure his wares. I think no good reason except the dog worry exists, for keep and care are cheap, and so are the buildings. The cheaper and airier these are the better the sheep will do. Costly buildings and frost-proof would be worse than thrown away upon them. Are not all these reasons for trying sheep farming here? Early lambs are in great demand in large cities, and there is no risk having lambs come in dry, cold weather if 24 hours protection is afforded to the little ones. If proper precautions were taken I believe there would be no greater death rate among lambs coming in January than in May, and the ewes will take the ram after the first cool nights in August. But the early lambing is not the only recommendation. Sheep are scavengers and eat away the weed crop in the fence corners and out of them. Nothing but wild grass, natural pasture, can stand the constant bite of sheep and live.

I have shown that they are remarkably free of the diseases that assail flocks in the Old Country; that they take but little attention; come into profit sooner than any other flock; improve the farm rather than drain its resources; subsist on natural pasture; are best housed in the cheapest buildings, and possess every attraction for our farmers. I believe they will yet resort to sheep farming, and we shall see flocks of 100 where we now see ragged, disconsolate half-dozens. There are plenty of good sheep in the country for the propagation of rams that, put to the cheaper ordinary ewes of the country, will suffice for the production of large flocks of mutton sheep, and make them at least as common as the notable little flocks of breeding Shropshires, Southdowns, Oxford Downs, Cotswolds and Leicesters are now in all parts of the Province. It is foreign to the purpose of this paper to enter upon details concerning the feeding and care of sheep. Nearly every farmer knows enough of that, but I may say that the sowing of rape is employment for a slack season of the year, and sheep are greatly improved by feeding on it before going into winter quarters; they have better carcase and better fleece, and it pays, as also does early pasturing of them on rye, which can then be ploughed in time for the summer crop of something else.

What I should recommend would be the establishment of large flocks of ewes and the use of a Shropshire ram. This would improve the mutton and give more size than the cross with the Southdown. Shropshire sheep, too, are very hardy and thrive on land where Leicesters or Cotswolds would not succeed.

If a breeder is dishonest a shrewd man will often detect it in a short correspondence relating to stock, but it is well to remember that a breeder may be perfectly honest in his statements and still his judgment may be faulty from lack of experience or education. Especially is this true of young breeders.

### Hog Raising in Relation to Future Agriculture.

BY MR. M'NISH, LYN, ONT.

Read before the Dominion Hog Breeders' Association.

In reviewing the history of past events one fact in particular is deeply impressed upon the mind, and that is this that the success of all great movements has depended upon the organization of all the forces in sympathy with them—to the concentration of all the energy of their promoters upon the object in view.

As one who takes a great interest in the agricultural industries of our country I view with pride and satisfaction the formation of this Association, which has for its object the elevation of a hitherto much neglected animal to that point in the public esteem to which his many good qualities entitle him.

The bulletin recently issued by the Ontario Bureau of Industries on the swine industry reveals to us the astonishing fact that this Dominion is annually importing from the United States over \$2,000,000 worth of hogs and their products.

Why is this? Because the Canadian farmer has yet to learn that lesson which he might acquire from the thrifty habits of his Saxon or Scandinavian brother in Europe, who, less favored by nature, forced to coax a livelihood from an often unwilling soil, is compelled by these circumstances to turn every product of the farm to the best advantage.

This Province alone, with its favorable climate and fertile soil, should produce as many hogs as are consumed in the whole Dominion, besides exporting large quantities.

During the past decade our system of farming has undergone great changes. Wheat growing, which has failed to yield the profit of former years, has been abandoned to a great extent and the virgin soil of the boundless prairie claims that industry for its own. Beef raising too, which at one time claimed a great share of attention, is likewise emigrating to the cheap lands of the far west, and we are looking about us for a more remunerative field for our labors, and if we as farmers, here in the eastern portion of Canada, wish to make a success of our calling we must look about us and adapt our methods to our changed circumstances. How can we do it? By dairying, some one says. Only partially, I answer. Dairying to be really profitable must go hand in hand with swine raising. The greatest success in farming consists in converting all unmarketable products into marketable products. The offal from the dairy has no market value; we have too long been literally wasting it; we must provide some means of converting this waste product into goods of some market value. The channel through which we can do this most quickly and profitably is by means of well bred, thrifty pigs.

The dairy interests of our country, under the fostering care of the Government, has made enormous strides during the past few years. New and improved methods of converting milk into marketable products are continually being introduced, but it is a lamentable fact that the part of dairying which makes it really profitable—swine raising in conjunction—has received very little else but neglect. It is, however, gratifying to know that the hog, as well as the cow, is at least having its claims recognized, and it remains with us to show our appreciation of the efforts of

our Government in a practical manner by turning the mass of information it has placed at our disposal to a profitable account.

The Danes are held up to us as models to copy from in dairy matters, and they, in conjunction with butter-making, have taken hold of swine raising so vigorously and systematically that their hog products are fast acquiring a world wide reputation. In the British markets they are fast replacing the Irish bacon, so long held in such high esteem.

With the use of a silo and other improved methods of feeding, dairying is bound to make still more rapid strides than it has made in the past, and there is no reason why we Canadian farmers, with the assistance of free corn, cannot raise pork as cheaply as those living in the corn belt, especially when we take into account the vast numbers of hogs which succumb to the cholera. There is nothing to prevent us from raising a pound of pork to every pound of butter, or three to five pounds of cheese.

It seems to be a recognized fact that the days of heavy fat hogs are numbered and consumers are clamoring for lighter and leaner hogs. The weight that seems to be most popular among packers, is an animal weighing from 150 to 200 lbs. dressed weight, a weight which can easily be acquired at from six to eight months.

In conclusion, I would urge every member of this Association to be untiring in his efforts to place this very important branch of farming in its true light before the farmers of this Dominion. Let Canada hold the same proud position in the production of bacon that she does in the production of cheese.

**Errors in Sheep-breeding and Feeding.**

Read before the Canadian Sheep Breeders' Association by John Campbell, Jr., Woodville, Ont.

It has been well said that "he who never makes a mistake never makes anything," yet it is only as far as we are taught how to shun misfortune that the considering of past errors will be useful. I am sure every breeder present can recall some mistake in judgment or practice when dealing with the flock, which, though causing a present loss, has ultimately proved a cheap bit of experience; the lesson taught acted as a guard against more and probably worse mismanagement. No doubt it is more pleasant to think and tell of our hits, but valuable information can be had from recounting our misses, which may show the more fortunate, or beginner, how to avoid disaster.

The want of a definite aim is perhaps as common an error as is to be met with among would-be breeders. Some breed or other is fancied and the foundation of a flock purchased with little knowledge of the breed's characteristics, less consideration of the suitability of their farms for the fancied animals, and still less thought of what market will be found for the expected surplus stock in after years. Time passes and disappointment steps in; the flock is not up to an average standard, so sales have been slow and at low figures, many going to the butcher, and the particular breed is set down as a failure by owner and unthoughtful neighbors, while an experienced eye would readily trace the failure to errors in selection and management.

But the most practical and experienced men do not meet with unbroken success. We have here to-day as careful and successful sheep-farmers as can be got together in this country, yet is there one who has not regretted some time or other a step which was the source of vexation and loss? A ram was used which did not exactly please, but on the score of economy or convenience he was put in the flock with the result of the produce being far from what was wanted. Or a male has been used in form and character as near perfection as it is possible to get them, perhaps carrying show-yard honors, yet the outcome did not prove satisfactory. In this case the mistake was in using a superior animal when out of proper condition to repro-

duce and transmit his excellent qualities to his get. It certainly is a loss to many breeders that our fairs are held so near the coupling season when it is necessary to have sheep in too high condition for successful reproduction, because decisions are often given according to plumpness given by excessive feeding.

Placing a ram in the flock which lacks in some feature strongly wanting in the ewes will surely stamp that want more fixedly in the flock. It is well to have any point of excellence lacking in the ewes largely developed in the sire, while he should at least be fairly well proportioned in all points.

Apparently excellent rams in all respects have sometimes proved wretched failures as getters, simply because their good qualities were possessed by some chance, not being fixed by continuous breeding in one direction, so their mixed blood showed itself in offspring of many types. We should therefore pass by a ram of uncertain breeding, let his appearance be ever so pleasing to the eye.

When the increased value of one crop of lambs from twenty ewes, when sired by a choice male, may be many times the difference in price between a good and an inferior one, the error of being too saving of the pocket should be avoided when selecting the head of the flock. What has been said of using rams when out of condition from excess of flesh and fat, applies with greater force to breeding ewes when in show condition, and much more so when fitted for that purpose beyond the sea, where stuffing is practised without any limit, except the disability or death of the sheep.

How many present can report the investing in Old Country show ewes for breeding purposes to be at all as profitable as the use of those in store condition? Is it not an error on our part to continue bringing them here at a great expense for the sake of winning in the show ring? They should not prove a means of building up any one's reputation as a breeder, and the sooner we will ask fair officials to offer the best premiums for breeding animals for sheep bred by exhibitor the better will it be for us, as *breeding pure and simple* will be the more encouraged and not mere speculation.

Rams can with care be gradually reduced in condition from Old Country show fit so as to be useful, particularly if not older than yearlings, but ewes often never.

Though an occasional error in selecting ewes for breeders may not be much noticed it is by having each and every one right that the greatest success can be reached. Uniformity of form and fleece will often result in sales, when the intending purchaser in looking over a lot of varying characteristics, will, if he wants a good article, be satisfied with a short inspection. What an error then to begin a flock, or continue one, having no fixed standard of excellence to take the buyer's eye or contribute to the owner's reputation as a breeder.

At the same time a mistake may be made by discarding a ewe, failing in some unimportant feature, but otherwise of good quality. We should always bear in mind that mutton and wool which will bring the highest prices at the least cost are the profitable products in sheep-raising, so that fancies in the way of a much-covered head in this breed, or a bare head in that, should not be carried to extremes. Here I may say that at the Royal Show at Windsor last year a ram in one of the shearing classes was defective in a point which many judges in this country would so condemn as to leave him without an award, yet there he was given second place among some 140 competitors, and in a two-shear class one with a somewhat similar defect won second place also. But with all due care in selection and mating a very great deal depends on proper feeding. In years gone by I have had serious loss of lambs caused by the liberal feeding of roots to in-lamb ewes. While roots are so beneficial to the growing sheep and ewes after lambing, abortion or the dropping of weakly lambs, follows the feeding of roots, except in moderation, to lamb-carrying ewes, and mangolds are particularly hurtful. Of late years I have met breeders who could not account for the appearance of half-rotten lambs, or weak, puny things, with just a spark of life, which

soon died. In every instance the error was in too free a use of roots, and usually mangolds.

Loss of lambs, as well as of ewes, result from feeding much grain to breeding ewes previous to lambing, but it is a mistake to allow them to fall in condition, so that there is a scarcity of milk at a critical time. Overfeeding, which causes garget and other disorders, and underfeeding, soon seen in stunted lambs, are to be avoided. The alternate stuffing and starving occasionally seen would soon ruin the best flocks. It is the happy medium of so feeding as to secure a continuous growth from the birth to maturity, and maintaining a moderate and uniform condition afterwards, that will give us the best returns for our labor in producing mutton and wool, or sires to be used in pure-bred flocks, or to improve the grade flocks of our own country and other lands.

**General Purpose Cattle.**

A correspondent of the Holstein-Friesian Register says:—"The low price of dairy products in the West does not justify the average farmer to raise an exclusive dairy animal, neither does it pay to raise an exclusive beef animal." The writer, it is needless to say, makes this statement as a contention that the Holstein-Friesian cattle are the great general purpose cow of the day. We have no quarrel with him on the merits of the Holstein cattle; they are a useful breed, as any one who has watched their progress in America must admit. Booms may help a breed for a short time, but the last end is worse than the first; hence we say the Holsteins must have intrinsic value to have been able to reach the place they hold in the estimation of the American public. But is it as a general purpose cow she excels? Not by any means. While the present system of proving milk is in vogue she is the best of cheese cows to the individual farmer, whatever she may be to the cheese industry at large, and if the persistent efforts of the past five years are continued for a decade there is little reason to doubt that she will be equal to the best as a butter cow. But if a dairy cow, bred and developed for that special purpose, can not be made profitable, and a beef animal, bred and developed along that line, and for that purpose only, must be kept at a loss if kept at all, how in the name of common sense are we to unite these two losing productions and make them profitable. If an animal could be found that would produce as much milk and as good a quality as the dairy breeds and as much beef of as good quality as the beef breeds and at the same time cost the same to feed as one of these animals then we might claim a place for a general purpose animal, but at present they are, as a breed, a mite. True, on our prairies, where the pasture and hay costs usually little or nothing, almost any cattle will yield a profit, but what we claim is, that under any and all circumstances, where a general purpose animal yields a profit, a special purpose animal would yield a greater if the breed best adapted to existing circumstances were adopted. Who are our best mechanics? Are they not men who have made their trade or calling a special study all through life? We find handy men everywhere, but they never make a success of any line. Who are our most eminent divines? Are they not men who have not only studied theology but have thrown the whole energy of their lives into their work? True, there are men following the plough that can preach a very good sermon, but are they not far from the top of the ladder? Who are our best doctors? Is not the same reasoning applicable? There are many quacks or general purpose men, but when we are sick unto death we do not call on them—we want the special purpose man. Quack doctors, quack preachers, quack mechanics and quack cows all must take second place.



**Chatty Letter from the States.**

[From our Chicago Correspondent.]

After the severe depression in cattle prices, owing to excessive receipts, prices advanced 30 to 50 cents per hundred pounds the middle of August, good 1,400 to 1,600-lb. cattle selling freely at \$4.80 to \$5.00.

The remarkable drought which has extended over so wide a scope of country has had the effect of materially changing the entire situation in the live stock world. It has also served to show how very dependent is our American farmer on the crop which our British cousins, who prepare stock for the shambles, are independent of, namely, Indian maize. Early in the season the general prospects for a big corn crop were excellent, and there seemed to be no good reason why there would not be an unusually large number of animals fattened during the summer and early fall. In most localities there was a goodly supply of old corn on hand, and it was the most natural thing in the world that, in the face of good crop prospects, there should be a free use of it in making early beef, pork and mutton. The scorching rays of the sun poured down and the rain fell not. The pastures dried up and the price of corn went up. Farmers who had old corn on hand began to feel that it was worth more as a cereal than in the form of marketable meat, and those who were dependent upon the stores of their neighbors immediately began to sacrifice the cattle whether one-fourth or one-half fat, or not fat at all. The result has been a very heavy over-marketing of cattle and hogs not at all fit for market and of course a collapse in prices.

Western ranchmen are a little disappointed at the low opening of the markets for their class of stock, but they were unfortunate in starting in just when the dry weather was forcing in such large numbers of unripe native cattle. A good many well informed dealers seem to think the late sales of western range cattle will be the best as they think the panic caused by the drought will be only temporary and that a strong reaction is bound to set in.

While corn feeders are sacrificing their young cattle many of the heaviest cattle and meat dealers are showing their faith in the future of the general market by purchasing freely of cattle to put on feed in the distilleries and glucose factories.

There is more life in the demand for well located cattle ranch properties than for years past, but at the same time some of the heavy companies in the Northwest are at this time sending to the butcher thousands of cows and yearlings. Thus we see the trade is full of anomalies, but if it were not for this difference of opinion there would be less incentive to trading than there is.

The live cattle export trade is not very brisk, but there is a good free movement all the time, and if it were not for this outlet American cattle would be selling much lower than they are.

R. H. Whittett, Aledo, Ill., had in a load of cattle averaging 1,320 lbs. that brought \$4.75. They were grade Shorthorns.

W. S. Vannatta & Son, Fowler, Ind., marketed fifteen 1,510-lb. Herefords at \$4.75.

D. A. Hancock, Blackburn, Mo., marketed three loads of nearly purebred Polled-Angus, his own feeding, which averaged 1,420 lbs. and sold for \$4.85 and three loads of the same cattle

averaging 1,464 lbs at \$4.92½ the following day when the market was higher.

The western range cattle have sold lately at \$3.10 and \$3.75, for fair to prime 1,075 to 1,240 lbs., wintered Montana Texans. For the week ended August 2nd Chicago received 85,890 head of cattle, not counting 5,380 calves, being the largest week's receipts on record.

Hogs will be scarcer than expected this winter, unless the corn crop is much better than now seems possible. There will probably be no material shortage, but it was expected that the winter crop of hogs would be a large one.

**Our Clydesdale Letter.**

The season of 1890 will long be memorable as one of the most exciting amongst Clydesdale breeders in Scotland. The show of the Royal Agricultural Society of England at Plymouth in the end of June and of the Highland and Agricultural Society of Scotland at Dundee last week were both remarkable in their way for the Clydesdale representation that was forward on both occasions, and two unexpected, but not therefore erroneous decisions. The two horses bred at Craige, Ayrshire, and own brothers Mr. Gilmour's Prince of Albion and Mr. Kilpatrick's Prince of Kyle, after remarkable runs of success have both had their colors lowered and suffered defeat. Prince of Albion, the older of the two, and possessing the greater balance of Clydesdale characteristics, has performed the unprecedented feat of winning first prize four years in succession at the Highland and Agricultural Society's Shows, viz., at Perth in 1887, Glasgow in 1888, Melrose in 1889, and Dundee in 1890. When passing one his appearance is altogether pleasing, and the beauty of his form and gaiety of his carriage have rarely been equalled and never excelled. He is a bay horse with four white feet and pasterns and a white stripe on face. His weakest points are his back, which is a little plain; his thighs, which are not so well developed as might be, and in his movement he walks rather wide behind. His surpassing balance of merit in every other detail has rendered him perhaps the most uniformly popular Clydesdale stallion of the half century which has intervened since the National Society of Scotland last held a show at Dundee.

But we have said that he has been beaten. The vanquisher was Prince Alexander, a yearling-bred like Prince of Albion, sire Prince of Wales 673, dam by Darnley 222, a cross which seems never to have failed—no fewer than three of the first prize winners at Dundee having been so bred. Prince Alexander was bred by Mr. Alexander Black, Craigenrosch, Stranraer, and his owner is Mr. William Renwick, Meadowfield, Corstorphine. He was never before exhibited but stepped at once into first place, and in competition with all the first prize winners secured the Clydesdale Horse Society's Championship of £25.

Mr. Renwick also owned the first prize three-year-old stallion, Darnley's Last, whose sire was the celebrated Darnley and his dam a Prince of Wales mare. This horse will not be three years old until the 7th of August. He is a richly colored horse with scarcely a speck of white on his uniform coat of deep dark brown, and he moves freshly and with sufficient activity.

Mr. Peter Crawford, Dumfries, is owner of the first prize two-year-old stallion Prince of Carruchan, whose dam was also dam of the champion female Clydesdale Sunrise, owned by

Mr. Riddell. The sire of the dam of these animals was got by the well known horse Old Times 579, and her owner is Mr. John MacCaig, Challoch House, Teswalt, who bred the fourth prize yearling filly, the first prize two-year-old filly Scottish Snowdrop, which has never been beaten, and the two animals already specified, Prince of Carruchan and Sunrise, a feat never before equalled in the annals of Clydesdale breeding.

Mr. R. Sinclair Scott, of Craigievar, was also a very successful exhibitor. He was first in the brood mare class with his fine mare Scottish Marchioness; second in the class of three-year-old fillies, with the beautiful Darnley mare Scottish Rose, and first, as we have seen, with Scottish Snowdrop.

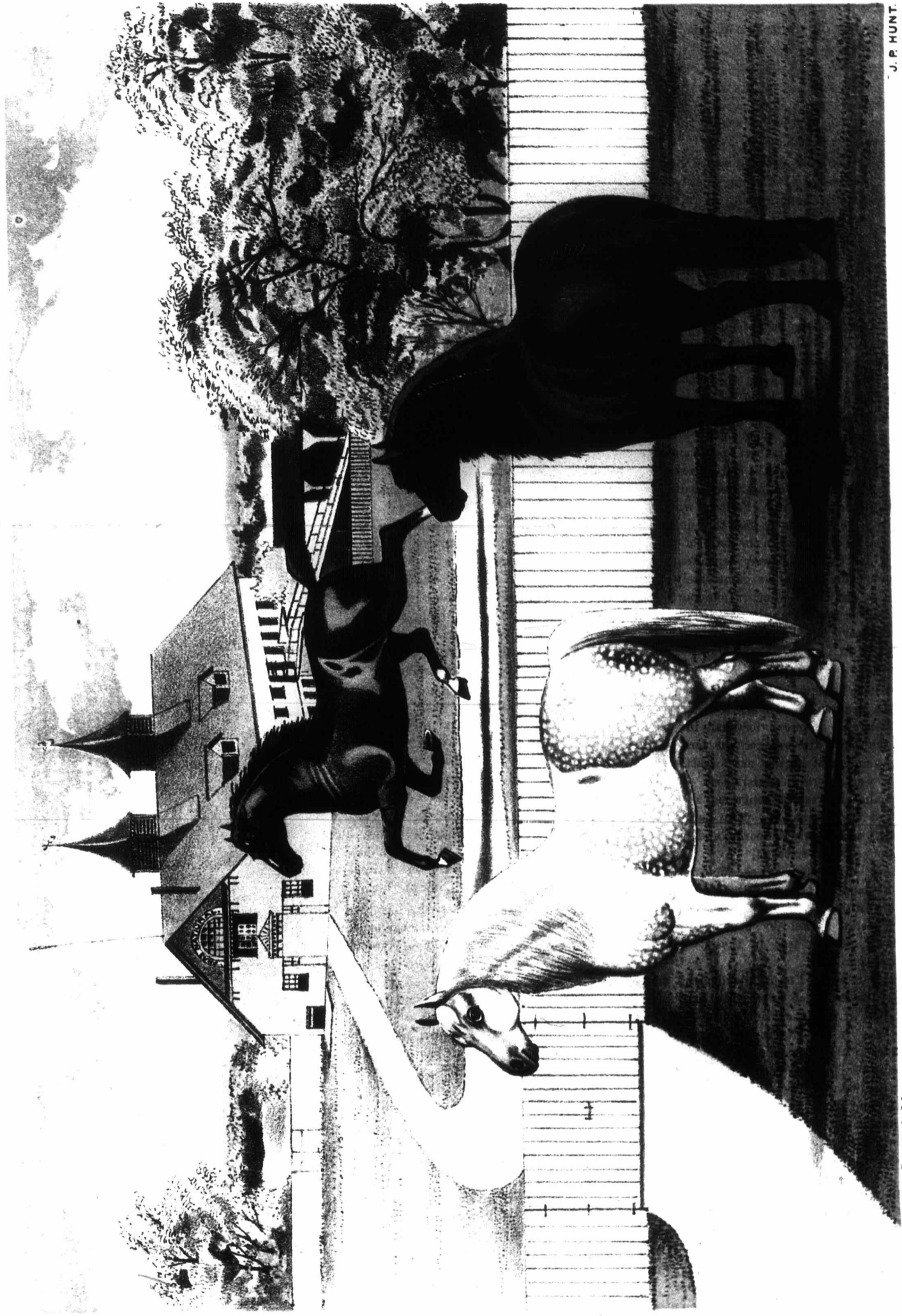
Mr. Gilmour, of Montrave, Fifeshire, the owner of Prince of Albion, had great success. He was first in the class of three-year-old mares with Montrave Gay Lass and in the class of yearlings with Montrave Maud, both of which were bred by himself out of two of the grandest mares ever exhibited. These were Lasso Gowrie, the dam of the first named, and the more celebrated Moss Rose, the dam of the second. The sire of Montrave Gay Lass was Garnet Cross, and of Montrave Maud, Prince of Wales, whose produce were numerous and marvellously successful at this show, as indeed they have been at every show this season.

The great sensation of the Royal was of course the defeat of Prince of Kyle in his class and the victory of Mr. Andrew Montgomery's unknown horse the Macara 7991, a son of the celebrated Macgregor and the champion of the Royal Show. This magnificent horse will doubtless cause a stir in America. He has been purchased by Colonel Robert Holloway, Alexis, Ill., and is a massive, powerful stallion. Mr. Robert Graham, Claremont, Ont., is here at present and does not know how to express his admiration for this great horse, which he would doubtless have tried to take to Canada had not the horse been bought before he arrived.

Great activity prevails amongst breeders in the hiring of horses for next season and remarkably high terms have been agreed on for several horses. Amongst horses owned by Mr. Peter Crawford, Lord Erskine goes to Dumfries district at £10 per mare with £3 additional for each foal, Prince Robert to the Rhins, of Galloway, on similar terms, and Prince of Carruchan to Perth and Brechire district at £10 each mare with £5 additional for each foal. Mr. Andrew Montgomery has hired the ever famed Macgregor and the young horse Prince Darnley, that was first at the Royal, to the Kirkeudbright district, and he has sold the celebrated Sirdar to the Fortmartine and Garioch Club in Aberdeenshire for £1,400, the highest price, I think, that has ever been paid for a horse of his age. Mr. Galbraith's Lord Ailsa is let to the Gorvan and Ballantrae district at £6 a mare and £6 additional for each foal. Mr. Renwick's Darnley's Last goes to the Machars of Wigtownshire at £10 each mare, payable at service, and his own brother Royalist, owned by Mr. Lumsden, of Balmedie, to Moray and Ross, where Cairnbrogie Stamp has been three seasons on handsome terms.

In my next letter I shall hope to give some details regarding the more notable horses exported to Canada this season. We have had visits from nearly all of our old friends and their purchases have been of high quality. We have missed the kindly face of our tried friend Mr. Robert Beith, Bowmanville, Ont., whom we hope to see later on. SCOTLAND YET.  
Glasgow, Aug. 4, 1890.

Supplement to the *Farmers Advocate* London, Ont.



J. P. HUNT.

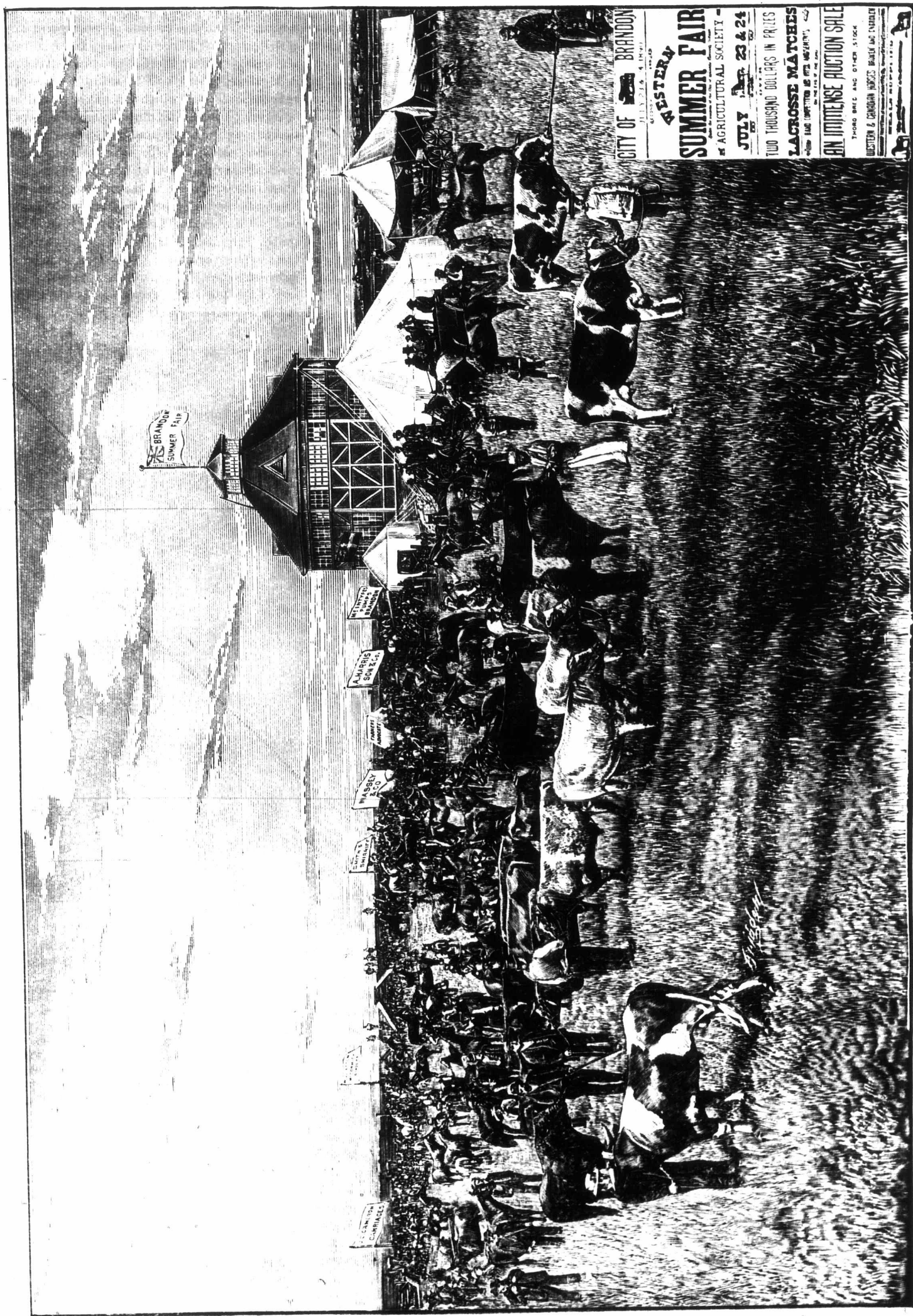
THE LONDON PTG & LITHO CO

ROI DE BIGNON (1499).

MARQUIS DE PUISAYE.

JULY (18168).

Percheron and French Coach Stallions. The property of THE HARAS NATIONAL,  
30 St. James Street, Montreal, P. Q.



**Brandon Summer Fair.**

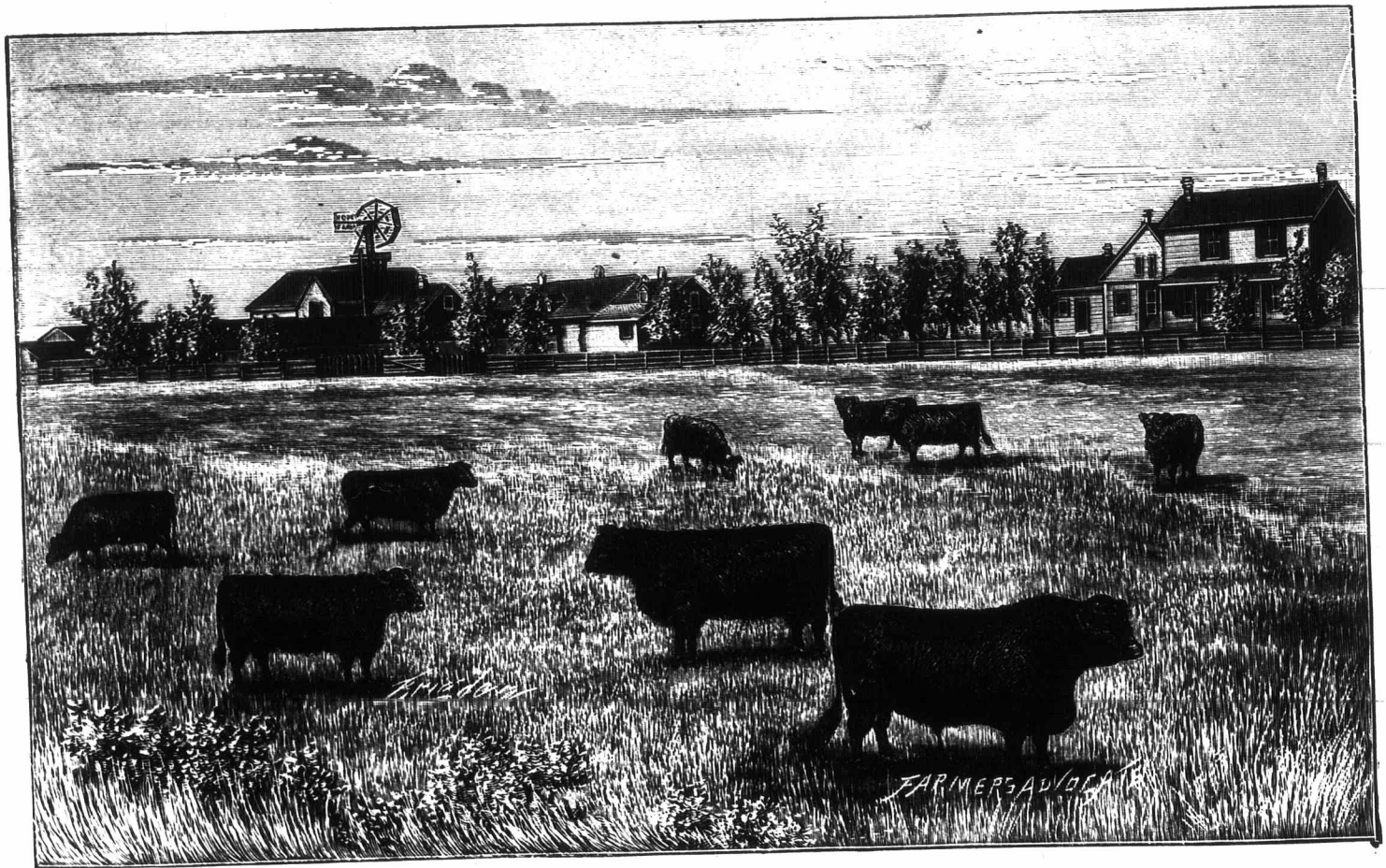
The illustration of the Brandon Summer Show is produced direct from a photo taken on the first day of the fair, and shows plainly that it is quite unnecessary to go to the east or south of our provincial lines to see a good exhibition of fine stock, as there are animals here illustrated that have won honors both in Ontario and in the Mother Country. While the stock is to many the most interesting feature of the show the mechanical exhibits are of great interest as well. The Massey Co. show, as usual, a large assortment of agricultural implements and machinery. Their new binder was much admired, while the old one that has stood the test for so many years had its share of friends, and their traction and portable engines were objects of much attention as well. Messrs. Smith and

cars. Mr. Cameron prides himself on turning out a superior article, and to this end exercises a personal supervision of each department of his work, and the result is the production of an excellent class of goods. Messrs. Redmond & Emmerson had on exhibition one of their neat cottage-roof tents, which they are now manufacturing, as well as everything in that line.

**Hope Farm.**

This farm, which forms the subject of our illustration, is situated four miles south west of the village of St. Jean Baptiste, a station on the Northern Pacific and Manitoba Railway, forty-seven miles south of Winnipeg in the Red River Valley, and is the property of Mr. Wm. Martin. Hope Farm contains sixteen hundred acres of most excellent soil, as anyone familiar with the

from the east by the time this reaches our readers. The herd consists of twenty-five head of Galloways of choice breeding, and a number of grades. Among the Galloways are three fine bull calves, which will be suitable for service next season, and, which it is to be hoped will be secured by Manitoba men, and thus kept in the country. At the head of the herd is Black Crusader, an animal of superior breeding and individual merit, as indeed are the entire herd. There are at present between two and three hundred sheep at Hope Farm, but as the greater part of the grazing land will be broken next spring, Mr. Martin is desirous of disposing of them before that time. The farm is under the management of Mr. J. G. Brown, formerly manager of the Bow Park Farm near Brantford, Ont., and in his earlier years in the employ of the



A VIEW OF THE HOPE FARM, ST. JEAN BAPTISTE, MAN., THE PROPERTY OF MR. THOS. MARTIN.

Shirriff had on exhibition the Cornell traction and portable engine, and Ohio Leader Separator, manufactured by Messrs. Haggert Bros., of Brampton, Ont.; the all steel binder, manufactured by Wm. Deering & Co., of Chicago, Ill.; wagons and buggies, by Lowrie, of Sarnia, and Dire harrows and plows, manufactured by and for the John Watson Co., of Ayr, Ont. The old reliable firm of A. Harris, Son & Co. showed their light steel binder, mower, rake, combined drill, the Cockshutt walking and sulky plows, Bain wagon, Bungay cultivator, Brantford harrows and sleighs. Mr. McIntyre, of Brandon, exhibited several kinds of wood and iron force and suction pumps, as well as a new patent frost proof pump of his own invention. W. Johnston showed the McCormick binder and mower, Canton Clipper sulky and walking plows, Clark's Cutaway harrow and the Draden spade harrow. Mr. J. C. Cameron showed a nice two-seat pleasure wagon; some fine buggies and

locality must be aware, and at the time of writing promises an abundant crop for this season. There are on the farm this year six hundred and fifty acres of wheat, most of which is now in shock, and promises well for fifteen thousand bushels No. 1 hard, although Mr. Martin estimates it at thirteen thousand. There are also one hundred and seventy-five acres of oats, that will yield ten thousand five hundred bushels. There are also eighty acres of barley, corn and other grains, and ten acres of roots and potatoes. Mr. Martin has had this farm but five years, but has planted in that time twenty-five thousand forest trees, almost all of which are doing nicely, those first planted now forming a nice grove, as may be seen by the illustration. The entire farm, so far as broken, is in a good state of cultivation, and is a credit to the section of country in which it is situated. There are at present thirty horses on the farm, and a carload of Clydesdale mares will have arrived

celebrated Amos Cruickshank, of Sittyton, Scotland, the originator of the Cruickshank cattle, from whom Mr. Brown holds a recommendation in Mr. Cruickshank's handwriting.

Whether fashion be right or wrong, it is a pretty good hobby to ride in breeding horses for money. In breeding trotters fashion follows success, and success follows merit.

A new law in Indiana pertains to the service fee of stallions, and requires registry of stock horses with the clerks of Circuit Courts. One of the requirements of the law is as follows: "That a copy of such license, embracing such sworn statements and pedigrees, with the fee the owner proposes to charge for service, shall be posted by the owner of such sire in two or more conspicuous places in the vicinity of the place where the sire is kept for service, and should any part of said sworn statement be to the knowledge of the owner of such sire, false in any particular, the owner shall not be entitled to collect any fee for such service, and the falsity of such statement, or any part thereof, may be pleaded in the bar to any contract or account for services of such sire."

**The Farm.**

**Ertel Hay Press.**

The illustration on this page represents one of the leading hay balers. The name of the Ertel presses have been as common as household words for many years among hay shippers in the United States, where they have been in use for twenty-four years. Messrs. Geo. Ertel & Co., London, Ont., have been manufacturing them during the last year, since which their presses have been in great demand, and are taking the lead for their simplicity and durability. The rapidity with which they do their work, combined with the compactness and smoothness of the bales, make them popular with all who have used them. The proprietors guarantee their "Victor" press to do as represented, or no sale. They offer to ship responsible parties one on five days' trial. Those who contemplate purchasing a press should write them for particulars, and will receive a descriptive circular containing prices, &c., by return mail.

who practice it. In this, as in every other matter, there is a best time for everything and it is of importance for the farmer to know, not only just how, but also when, he should wage war against his insect enemies, so that he may be prepared beforehand and act with precision at the proper time.

During this month the following insects demand attention:—  
THE IMPORTED WHITE CABBAGE BUTTERFLY (*Pieris rapae*).

Just when cabbages are heading and the grower is about to realize a return for his labor and expenditure, a green caterpillar about an inch long frequently injures the leaves and heads by eating into them and destroying their appearance. This is the caterpillar of the imported white cabbage butterfly, so called from the fact that this insect is not a native but was introduced, like many others of our injurious kinds, from Europe. The depredations of this

value even as chicken feed, but frequently a source of much harm from the number of weed seeds and injurious insects, as the Hessian fly and wheat midge, which it contains. Some of these pass the winter in a dormant state and when thrown out with screenings to feed chickens are left, as well as most of the weed seeds, and in the following spring the flies hatch and fly off to the fields of growing grain. Some of the Hessian flies, however, leave the flax seeds in August and September and lay their eggs in volunteer crops of barley and wheat, or fall-sown wheat and rye. Many of these may be destroyed by sowing strips of wheat or barley in August and early in September, which are afterwards ploughed under when the eggs have been laid, or by harrowing the stubbles directly the crop has been cut, so as to start volunteer crops, which will attract the flies to lay their eggs before the fall wheat is up. When the fields are ploughed of course the maggots which



**Notes on Injurious Insects.**

BY JAMES FLETCHER, OTTAWA, DOMINION ENTOMOLOGIST AND BOTANIST.

"Forewarned is forearmed."

In the constant struggle with the hosts of injurious insects, which every year deprive the farmers of so much of the product of his labors, no motto is of more use than the above, if it be acted upon and the proper precautions be taken beforehand for meeting or averting the attacks of these enemies of the agriculturist. Every crop cultivated has its insect enemies. The life-histories of many of them, however, have been worked out and remedies have been discovered by those who make a study of these matters. Having been invited by the editor of the FARMER'S ADVOCATE to make use of his paper in answering correspondence with regard to injurious insects, I shall be pleased to hear from farmers in all parts of Canada, and trust that through the pages of this widely circulated journal some of the simple and inexpensive remedies which have been discovered may be made known to many who are every year unnecessarily losing a large proportion of their crops. The systematic treatment of injurious insects is a branch of practical agriculture which is much neglected by farmers, but which, nevertheless, is found to pay extremely well by those

caterpillar are so severe in some parts of Canada that the cultivation of the cabbage has been to a large extent given up. We have a simple, safe and effective remedy in Pyrethrum, which is also known as "Insect Powder" and "Buhach." This can now be purchased of any druggist and may be used pure, but for this purpose will be found equally effective if mixed thoroughly with four times its weight of common flour. After mixing it must be kept in a tight-closed vessel for at least twenty-four hours before using. If a small quantity of this powder be now shaken over the cabbages, either by means of the small bellows sold by druggists as "insect guns," from a tin with a perforated cover, or from a small bag made of muslin or cheese-cloth, by tapping it with a short stick, every caterpillar upon which the powder falls will be killed in a few hours.

**THE HESSIAN FLY.**

During September a great deal of grain will be threshed and it would be well for farmers to examine carefully the screenings and rubbish from beneath the threshing machines to see if there are any of the "flax seeds" of the Hessian fly. This pest is increasing in Canada in some districts to a serious extent. A means of decided utility is the burning of all the rubbish from the threshing machine—itsself of little

batch from the eggs will be destroyed with the volunteer crop. The burning of stubble as it stands in the field, soon after the crop is cut, is a remedy practiced with good results in the Western States. The "flax seed" is the third stage of the Hessian fly and is so called from its close resemblance to a small grain of flax. It is a smooth, dark-brown object, about one eighth of an inch in length and those of the summer brood generally occur at the first or second joint of the straw, inside the sheath.

**CUT-WORMS.**

Cut-worms are the caterpillars of a large class of moths known as the "Owlets," which fly at night. The eggs of many of the cut-worms which attack spring vegetables were deposited by the parent moths upon weeds and other low vegetation during the previous autumn. They make half their growth before winter sets in, and then pass that season in a dormant state just beneath the surface of the ground. Two operations will be found useful in keeping down their numbers, the keeping down of all weeds in autumn, so as to deprive them of their food supply, and late ploughing, so as to disturb them after they have gone into winter quarters and expose them to the frosts of winter.

The great binding twine combination, that has had such effect on the price of this article across the lines, will meet its match in short order if Minnesota succeeds in making at its state prison a twine suitable for binding from home-grown flax without the admixture of other fibers.

### Parasitic Plants—The Farmer's Microscopic Foes.

(Continued from August issue.)  
POWDERY MILDEW OF THE GRAPE.

*Uncinula spiralis.*

This fungus affecting the grape has some characters not unlike those referred to in the plum knot. It attacks the foliage, the young shoots and also the young berries and seems to flourish in a dry atmosphere, and hence differs much in this respect from the downy mildew of the grape, referred to in a previous article. It appears in June and grows on the outside of the portion of the plant on which it is found and does not penetrate the tissues as other fungi which we have considered. However, it sends down into the surface cells root-like structures (*haustoria*) which nourish it at the expense of the plant upon which it grows. The parts affected present dull, grayish white patches which are never bright as in "downy mildew." Sometimes these appear as blotches of white-wash. At first on the ends of innumerable thread-like structures spores (*conidia*) are borne, these dropping off and finding suitable conditions, become the centres of further development.

When the vegetative part of the fungus (*mycelium*) has fully developed, receptacles (*perithecia*) are formed, and in these flask-like bodies (*asci*) form containing *ascospores*, which serve to carry the trouble into another season. They usually form about September or October. So here we have summer spores (*conidiospores*) and winter spores (*ascospores*), the former for rapid growth of the fungus, the latter for the perpetuation of it from year to year.

REMEDIES—1. Dry sulphur applied two or three times, once when the shoots begin to appear, again when in blossom, and shortly before the grapes begin to turn. Apply in warm and bright weather after the dew is off.

2. Boil three pounds each of flours of sulphur and lime in six gallons of water until reduced to two gallons. When settled pour off the clear liquid. One pint of this in 12 gallons of water gives good results when sprayed upon affected parts.

This destructive fungus is also closely related to the preceding. It usually appears first upon the young leaves, presenting a cobweb appearance. It soon becomes white and powdery from the development of spores (*conidia*).

Soon after this thin patches form on the berries and later on they become covered with brown patches of the growing fungus. When the white and powdery appearance is present spores are being produced as seen represented in fig. 1, which may be termed the summer spores (*conidia*). These spores as they form fall from the tips of the threads which are present at this stage of the fungus. They germinate quickly when they reach a moist place, soon produce new horizontal threads from which arise vertical branches with their spores as seen in fig. 1.

Later on, sometimes in June, the winter spores (*ascospores*) are produced. During this stage receptacles (*perithecia*) are formed of a chestnut color; the older portions of mildew lose their whitish appearance and become of a dirty brown color.

In these receptacles only one *ascus* is developed, but in this eight spores are formed. The appearance of a receptacle, or *perithecium* and the *ascus* it contains, is seen in fig. 2.

There is a third form of spore produced sometimes. These are born in pear-shape bodies (*pycnidia*) and may be found along with the young *perithecia*. See fig. 3.

It seems that our climate is favorable for mildew, especially upon the foreign varieties, but as the trouble is confined to the surface it can be readily reached by fungicides.

It is evident that the best time to apply a remedy is while the spores are least protected;

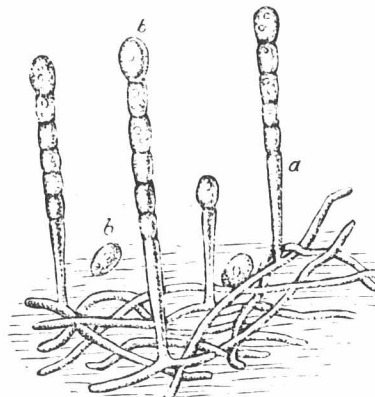


FIG. 1.

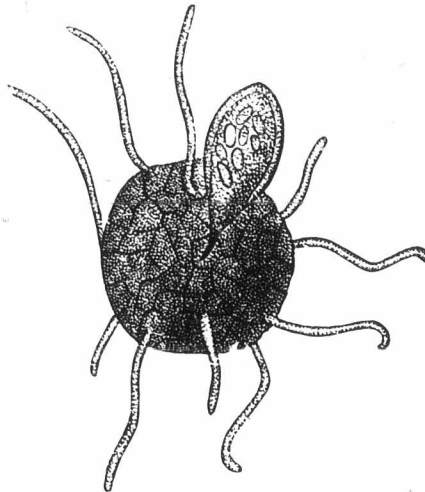


FIG. 2.  
POWDERY MILDEW OF GOOSEBERRY.  
*Sphaerotheca mors-suae.*

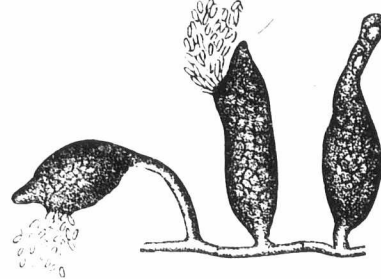


FIG. 3.

the conidial spores, just before they begin to ripen, and for the *ascospores*, before they are surrounded by a thickened wall. A good time, generally speaking, is while the mildew is beginning to establish itself upon the host.

REMEDIES—1. Sulphur thrown upon the bushes as soon as the first leaves are fully formed; repeat the process every ten days during the most rapid growth of the canes, that is till the early development of the fruit.

2. Remedy 2 of the powdery mildew of grapes.

3. Some have obtained good results from using fresh-mown hay, soaked in brine 12 hours, as a mulch, covering the entire surface of the soil about the plant. Watering the plants with strong soap-suds has a good effect. As long as you can keep plants growing vigorously there is but little danger from mildew.

4. Spray at intervals during the season with potassium sulphide,  $\frac{1}{2}$  oz. to gallon water.

### Tree-Planting and Tree-Growing at the Agricultural College.

BY JAMES MILLS, AGRICULTURAL COLLEGE, GUELPH.

Thinking that a few lines on our experience in the planting and growing of trees might be of interest to your readers I beg to submit the following notes:—

BLACK WALNUTS.

In 1881 we planted with black walnuts, from 12 to 15 inches high, a piece of clay loam, a little less than half an acre, on the side of a slope exposed to the west and north-west winds. The plants were obtained from seed which we had sown two years before and were set out with a view to form a clump of valuable shade trees. They were set in rows six feet apart and the same distance from one another in the rows. The soil between the rows has been ploughed lightly once a year and cultivated twice, with a little hoeing, to kill weeds and keep the ground open.

Regarding this plantation I beg now to report that the trees have all grown well without damage from frost or any other cause. At the present time they look quite healthy and are likely to do well in future, notwithstanding the severity of our Guelph climate. I have just measured a number of them and find that in nine years they have attained a growth of from 12 to 20 feet high, being  $3\frac{1}{2}$  to 5 inches in diameter near the root, and  $2\frac{1}{2}$  to  $3\frac{3}{4}$  inches in diameter four feet above the ground. About half of them are of the larger size.

I may add that in the cultivation of the walnut and other trees we have proved beyond doubt that, when the soil around trees is kept clean and loose by stirring occasionally in dry weather, the trees grow much more rapidly than when the ground about them becomes hard or grass is allowed to grow about them.

EUROPEAN LARCH.

In the same year, 1881, we planted also another plot of ground, about a quarter of an acre, with European Larch, of the same size as the walnuts, namely, 12 to 15 inches high. We raised the plants from seed and set them in rows five feet apart and the same distance from one another in the rows. Our object was twofold: (1) To conceal a gravel pit from view, and (2) to test the European Larch in this locality and climate.

For the first five years after planting the ground was cultivated more or less with the plough, scuttler and hoe. Since that time the space has been completely occupied, so that we have not had room for either ploughing or hoeing among the trees.

At the present time this plantation presents a beautiful appearance, not only concealing the unsightly gravel pit as we desired, but adding an element of beauty and interest to the landscape. The trees are from 12 to 24 feet high; growing nicely, and looking very thrifty. They vary in diameter from 3 to  $5\frac{1}{2}$  inches near the root, and from  $2\frac{1}{2}$  to  $4\frac{1}{2}$  inches five feet above the ground.

For the information of those who are not familiar with the European Larch I may say that it is of the same genus as the Canadian tamarack, which is known as the American Larch (*Larix Americana*). The European Larch resembles the tamarack, but is a different species and is much more valuable. The timber is difficult to split, is very durable, and in value is equal to Douglas Pine.

I may add that one of the best trees in this plantation is growing on the edge of the gravel ridge in almost pure gravel.

ASH-LEAFED MAPLE (*Negundo Aceroides*).

We have a third clump consisting of a variety of trees planted in 1882. It would, perhaps, be interesting to compare these trees as to height, thickness, &c., but at present we shall speak of only one species, viz., the ash-leaved maple of Manitoba and the Northwest. Among the other trees of this clump several of this so-called maple were planted eight years ago, and at the present time they are very much larger than any other kind of tree in the plantation, being from 22 to 25 feet high, averaging 8 inches in diameter near the root, and 6 inches in diameter five feet above the ground. The tree is not so handsome as our common hard or soft maple, but it makes a nice shade tree and grows much faster than any other tree on this farm.

FOREST TREE PLANTATION.

Our gardener, Mr. James Forsyth, who planted and has taken care of the clumps mentioned above, has also lately (this spring) re-planted a four-acre field with a variety of forest trees—white oak, white ash, black walnut, hickory, maple, catalpa, pine, &c. This field was gradually cleared to furnish firewood, and when the stumps had pretty well rotted we ploughed it up and took two crops off it (potatoes and peas), after which we ploughed, harrowed and re-planted it with trees in rows eight feet apart and in such a way that it can be cultivated in three directions with the plough and scuffler.

We have found that where horse cultivation is to be used trees in clumps or plantations should not be planted nearer than eight feet, even when it is intended to remove some of them after a few year's growth.

IMPORTANCE OF RE-PLANTING.

There are many barren knolls and strong or gravelly fields and commons throughout this Province that would be greatly improved by re-planting. They are now only so many eye-sores in the landscape, little or no use to the owners, and in most cases they detract from the value of good land in the immediate neighborhood. If re-planted, protected and looked after for a few years these same pieces of land would soon become the most beautiful spots in the country, and before long the trees grown on them would be a source of profit to the growers.

A DIFFICULTY.

The chief difficulty in the way of successful tree-growing is the cultivation necessary to secure rapid growth or even to keep the trees alive. In very rough or stony ground it is impossible to cultivate with horses, and in the best of land men will injure the trees with hoes and whiffletrees unless they are very closely looked after. The only remedies I know are: (1) To plant thickly in rough or stony places in order that the trees may cover and shade the ground in the course of a few years; (2) to dig or loosen the soil around the trees with a spade or fork as often as possible in dry weather, at least twice during the summer, and thus keep the ground open and porous around the trees till the growth is sufficient to cover the soil and keep it moist; (3) to remove some of the trees when they become too thick for healthy growth; and (4) to deal very strictly and even severely with those who do the slightest damage to trees while driving horses among them.

The Toronto Industrial Fair.

AN IMMENSE ENTRY OF LIVE STOCK AND PRODUCTS OF ALL KINDS.

Entries for the coming Industrial Exhibition to be held at Toronto from the 8th to the 20th of September, closed last week, and the number in all departments is far in excess of any previous year. Every foot of space in all the buildings has been applied for, and many intending exhibitors have been unable to secure any, and will have to take the best they can get when the exhibition opens. The entry of live stock is simply immense, and includes the best in the country; over 1,000 horses and 600 head of cattle have been entered.

Among the principal herds entered are the following:—Holsteins—The herds of Smith Bros., Churchville, 15 head; Maple Grove Stock Farm, Pieton, 8 head; R. S. Stevenson, Ancaster, 9 head; Fehlan & Breckin, Oakville, 10 head; Hallman & Co., New Dundee, and others. Of Durhams—The Bow Park Herd, Thos. Ballantyne & Son, Stratford; Jno. Morgan & Sons, Kerwood; J. Russell, Richmond Hill; Robt. Davies, Toronto, and several others are entered. In Ayrshires—The herds of Wm. Stewart, Menie; Thos. Guy, Oshawa; Mr. Drummond, Montreal; Jas. McCormick, Rockton, and others. Herefords—By Mr. E. W. Judah, Hillhurst, Quebec; Mr. Fleming, Weston, and others. Of Jerseys—Mr. W. A. Reburn, St. Annes, Q., 22 head; A. McLean Howard, Toronto, 16 head; Mrs. Jones, Brockville; Capt. Rolph, Markham, etc. Mr. Wm. Kough, Owen Sound, and Thos. McCrea, of Guelph, both make large entries of Galloways. Mr. Cochrane, of Compton, Q., and Dr. Craik, of Montreal, send large entries of Polled-Angus, and many other important breeders in all parts of Ontario have made large entries. Dr. Craik has also entered a herd of a new special breed of hornless cattle



J. J. WITHROW, PRESIDENT TORONTO INDUSTRIAL FAIR.

which he named "Craik's Spotted Polls." This gentleman deems the absence of horns in domestic animals so desirable, and the practice of dishorning so revolting, that he has determined to show how easy it is to get rid of the horns by selection in breeding. He has now over a dozen females and four males of this breed, all bred by himself by mating a hornless grade cow (a cross between Ayrshire and Durham) with his registered Ayrshire bull "Mark Twain," and subsequently by mating a hornless bull thus obtained with the best of his ordinary dairy grades. Nearly half of the calves thus bred came without horns, and these are preserved, while those with horns are sent to the butcher, and in this way his Spotted Polls are rapidly increasing, and by selecting from these only the good milkers and those nicely marked, he hopes soon to have his whole herd of over fifty cows composed entirely of red and white spotted Polls. No animal related to any other of the Polled breeds has been used, so that it is in the power of any farmer by using the Polled cows which are to be met with occasionally in all herds, to "breed away" the horns instead of cruelly cutting them away. This exhibit will no doubt be a most interesting one to farmers visiting the Toronto Exhibition. Nearly all the milk breeds are entered for the milk competition.

A large exhibit of the products of the West Indies have been shipped from Trinidad for the Toronto Exhibition under the charge of Mr. E. Tripp, who is now on the way and will arrive about the 1st Sept. An exhibit has also arrived from Spain, and the exhibits from British Columbia and Manitoba are now on their way. It is probable that the Earl of Aberdeen will officially open the exhibition on the 9th Sept., and that the Governor-General, Prince George of Wales and the Hon. Jos. Chamberlain will visit it during the second week.

The official programmes of the large number of special attractions for the entertainment of visitors each day of the Fair have been issued. All who may intend to visit this great Fair are assured of witnessing the greatest and best display in every department of agriculture and manufactures that has ever been made in Canada, and of deriving

much substantial benefit and enjoyment therefrom. No liquor, and no games of chance or other devices of any description for extracting money from the unwary will be allowed on the grounds, and the management have taken every precaution to prevent any occurrence that will cause any one of their patrons to regret having visited this exhibition. The indications are that the attendance of visitors will this year be greater than ever. Cheap excursions will be run on all lines of railway in Canada leading to Toronto during the two weeks of the Fair.

The Western Fair.

The time is approaching rapidly when this great exhibition will again be held at London, and since our last issue many encouraging things have transpired, which, without doubt, assures its success. Mr. Thos. A. Browne, the Secretary, tells us the entries are very much in excess of previous years in nearly every department, and especially in the live stock, which has been largely augmented by foreign breeders, notably among them the Haras National, of Montreal, who will show their fine Percherons. The special prize offered by the Clydesdale Association has had its effect upon this class; we presume not so much for the cash as the honor. The Carriage and Roadsters are always to the fore in this section of the country, and this year is no exception. The Saddle and Hunter class is about the same as former years, and the introduction of the Pony class should give general satisfaction, being an entirely new feature.

The exhibit of Cattle, Sheep, Hogs, Poultry and Agricultural Products will be equal to or even better than any former fair, which is saying sufficient.

The judges have been selected by the Directors for the different departments, and great care was taken in order to have each one competent and worthy to fill such responsible positions with justice to the exhibitors and credit to himself.

It has been arranged so that the exhibitors who attend the Toronto Fair with their live stock and poultry will have ample time to get to London, and it is expected that a very large number will take advantage of the arrangement, as they are well aware of the value it will be to them to enter into an entirely new field of buyers.

The Agricultural, Horticultural, Dairy and Honey Departments are under the supervision of practical men, and the special prizes offered in these classes should dispense the right sort of enthusiasm among the exhibitors, and should call out a large and varied exhibit. This is the proper way for these associations and firms to manifest their interest, assisting the fairs by supplementing the prize list and encouraging the production of a richer and better exhibit in these departments.

The Main Building will be filled to the last inch; at least such is the determination of the chairman of this committee, Mr. Geo. M. Reid, and he has already been promised by some thirty firms to put in machines and manufacture their goods before the public view.

This is a new attraction in connection with this building, and should be one of great interest, as it is not every one who has the chance to see cotton and woolen looms working, screws being turned out in large quantities, making ivory buttons, cigars filled and packed by the hundred, brushes made, china decorated, crockery moulded, fancy scroll sawing, carving machines, cards printed, stamping of tinware, pressing medals, and a lot of other industries at work.

Besides all this there will be a more varied and extensive exhibit of pictures, stoves, ladies work, pianos and organs, etc.

The Waterworks people have arranged to put in a very attractive exhibit, and a fountain will be kept playing in the centre of the building, which will greatly add to its appearance.

The City Council have also had erected an artificial lake on the grounds, which will improve the general appearance, and secure to London the possession of the most attractive and convenient grounds in Canada.

The Special Agricultural Exhibits will be no small feature of the Fair. The display made by the Southern Inter-States will be worth the admission fee charged. It consists of every variety of agricultural products grown in the United States, such as growing cotton, figs, rice, peanuts and minerals, herbs, etc. The alligator of Florida, the hiddenite stone (as valuable as the diamond) are also in this collection. You cannot see this exhibit any place else in Canada. The Ontario Agricultural College, and the Dominion Experimental Farm, the Manitoba Government, the Canadian Pacific Railway exhibit of the Northwest, and the celebrated Indian exhibit are among the number.

The management have also arranged for many other attractions, namely, International Bench Show of Dogs, Band Tournament, etc. These they have secured at considerable expense to satisfy the amusement loving public. Visitors are expected from all over this Province and adjoining States.

Remember the dates of the Western Fair, Sept. 18 to 27, and also that it is the best live stock and agricultural Fair held in Canada.

Is it so? A pungent writer, who has a keen eye to the way things are done, says: "The wire-pullers can usually get enough help from the farmers themselves to down any practical movement in behalf of agriculture; and a farmer Legislature is more perfectly wax in the hands of a shrewd lobby than any other convocation extant." Here is a deliberate statement for Grangers and all intelligent farmers to think about.

**Central Canada Exhibition, Ottawa.**

22ND TO 27TH SEPTEMBER.

The success attained by this Exhibition since it was started in 1888, promises, from present indications, to be even greater than in either of the previous years. The President, Directors, Committees and Secretary are all working hard to ensure success. Entries are coming in daily in numbers and enquiries from all parts of the country for prize lists and entry blanks form a very respectable portion of the daily mail. The daily post cards received by the Secretary from his advertising scouts all bear the same story and everything seems to point to a larger number of visitors than ever. His Excellency the Governor-General has signified his willingness and intention of opening the Exhibition on Tuesday, 23rd September, at 2.30 p. m., and it is expected that Sir John Macdonald and all the members of the Cabinet will be present. Intending exhibitors are strongly advised to peruse the prize list with its aggregate of \$12,000 in money, besides several gold and silver medals and other special prizes. Special exhibits from the Experimental Farm and from Manitoba are promised. The Horticultural Committee, having associated with them the Gardeners' and Florists' Club, are making strenuous efforts to make the Horticultural Hall the most attractive on the grounds. The special attractions provided this year, whilst not being sensational, will be found interesting and amusing and include Professor Hopper's dog circus; Professor Achille Philion in his daring spiral tower globe performance; Monsieur and Madlle. Ventini, the noted European equilibrist and grotesque artists; Andy Sweeney, the modern Samson, in his marvellous feats of strength; Running and Trotting races each day for handsome purses, and many other features that cannot fail to entertain the many thousands who will visit this well-managed fair and autumn fete.

**The Town of Neepawa, Man., and Surroundings.**

This little town of some 800 inhabitants shows on all sides signs of healthy life and growth. It contains a large number of well-built residences. The Court-house, the English Church and some of the leading stores and offices are of brick. As to places of worship there are the English, Presbyterian, Methodist and Baptist Churches and a commodious Salvation Army hall. There is a good school, consisting of an upper and lower grade, also a well-built post office and hotels and boarding houses. The town at present is made up of two almost distinct divisions—the one part of it lying around the station, the other to the south of this on the hill. There is an open space of about half a mile between the two. When united the town will be of considerable size, and the street running south from the station will be a fine one.

Neepawa is surrounded on all sides by a well-settled, fine agricultural (chiefly wheat) farming country. Water is abundant and can be got at from 14 to 20 feet below the surface. Timber is also plentiful. The soil consists of a black loam, of from 2 to 2½ feet thick, lying above a light to heavy clay subsoil. The crops everywhere (Aug. 21) are looking magnificent. Mr. Skelding showed me specimens of growth of the "Black Mane" oats. The whole piece, of about 40 acres, will average five feet in height, and the heads are from 10 to 12 inches in length. Mr. S. expects to reap from this about 100 bushels to the acre. It is expected that about 500,000 bushels of wheat will be marketed here this fall. The Beautiful Plains Milling Company have a storage capacity in their elevator or warehouse of about 62,000 bushels; the Ogilvie Milling Company of 20,000 bushels, and Roblin & Atkinson of about 15,000 bushels. A new flour mill (owned by the Beautiful Plains Milling Co.) is in course of erection and will be completed for fall trade. The various implement makers are well represented here and report a large season's trade. Harris & Son reports a sale of 55,000 lbs. of cord this season and 60 Bradford binders. Several new dwelling houses are in course of erection and two new warehouses for storage are to be completed by the fall. A new Methodist Church (brick) is expected to be built almost immediately.

**The Agricultural College Experimental Farm.**

The seed experiments now being conducted at the above Farm are very interesting to those who may have time to pay it a visit during the busy harvest season. The present state of cultivation of the farm itself presents a direct contrast to the thistle-covered, so-called Model Farm of a few years past. To grow seed grain on a farm covered with every variety of noxious weeds would not be likely to be a paying investment for a private individual to enter into, but when a public institution, supported by government funds, could not make a presentable appearance to visitors, there must have been something radically wrong in the management. However, as far as the weeds are concerned, this is a thing of the past. Instead of the foul condition of the fields, as formerly seen, they are now practically clean, and Prof. Shaw is deserving of much credit for the untiring vigilance with which he overlooks this department, and he promises that by the end of another year the farm will not produce a thistle.

The vast improvements of the roads around the farm we must attribute to the same source.

That the soil of this farm is not suitable for what it is intended is easily seen by those competent to judge, for many of the varieties of oats are badly rusted, and the spring wheat was blighted in places and uneven, which would not be the case if the soil was of the right quality. So much has been said on the subject that a writer is loathe to add to the chorus of growls that have issued from those who have viewed this farm in the past. The fact remains true as ever that the soil is unsuitable for the growth of many of our chief crops, such as fall and spring wheat, oats, etc. To our astonishment many of the fields still require tile draining, without which it is perfectly useless to attempt anything in the way of advanced farming. And we hope that the Minister of Agriculture may see his way clear to obtain a grant to do this necessary work.

We spent a most profitable afternoon in viewing the different varieties of spring grain, both in the fields and in the experimental plots.

A field of spring tares, grown for feed, is nicely covered, and should yield a paying crop, although only tried as an experiment to enable farmers to judge if growing their own seed for this soiling crop will pay.

The peas adjoining, both Prussian Blue and the Mummy varieties were exceptionally fine. The experimental seed department should be of untold benefit to the country, and no doubt this branch of the establishment will yet be made to yield good returns. The past year over 100 varieties each of spring wheat and oats, some 60 varieties of barley, and 30 kinds of peas have been sown in plots, those proving most successful are re-sown the following year on one-third to one acre plots, and are again given more space as they yield satisfactorily. These experiments should be of immense value to the grain-growing department in our agriculture industry. Ten bushels an acre all through this Province could easily be added to our oat crop by a proper selection of seed. The same proportion in other field crops. Then how necessary that we should have the most suitable seed of every kind. And there is no place that has such facilities for this work as the experimental farm at Guelph. To add to the otherwise flourishing condition of the different departments, Prof. Shaw fancies that the farm will this year have a balance on the right side of the ledger.

**Essex Dwarf Rape vs. Bird-seed.**

For several years past we have urged upon our readers in the east the wisdom of sowing rape as a forage crop; we have also advised our western readers to give it a trial.

Our object in calling the attention of the public to it at this season of the year is not so much on account of its great value as a soiling and forage crop, for its merits are pretty well known, but to warn them against the error that many have fallen into of buying a cheap variety from irresponsible parties, as country merchants, country dealers and others have been selling a so-called rape seed to farmers and stockmen as sowing rape which has been nothing more than the common *bird* rape seed or what is commonly known as German rape. This is perfectly useless as a sowing rape, and those who have sown it are very much disgusted with the result. This has in every instance been the outcome of buying cheap seeds from those who do not know their business. German rape can be sold for about half the price of first-class sowing rape, hence the temptation to invest in such. We would warn all our readers against buying anything so important as seeds of any sort from anyone but a first-class seed house. Better pay two prices for the genuine article than get an inferior or worthless one for nothing. The best variety of rape is the Essex Dwarf which can be procured from any reliable seedsman in the trade. We are sorry to say many farmers in the east and some few in the west have suffered heavily from sowing "German rape." When will farmers learn to sow nothing but the best of everything?

**Ontario Agricultural College.**

It is expedient that farmers' sons should know what is required for admission to the lectures at the Ontario Agricultural College. A special course for one College year may be had on the following terms: In this case the student confines his time to one or more subjects. In taking this course a man may take the lectures commonly given in two years in one, such as agriculture and dairying. However, to do this he must board outside the Institution. The tuition fee is \$20, the outlay for books about the same, and board can be obtained at Guelph at \$3 per week. As the college year begins October 1st and ends the last half of June, the cost can easily be figured. Those who take this special course are not required to do any manual labor on the farm, and yet may receive any instruction given at the stables. They thus get all the lectures on general agriculture and live stock, also on dairying. Other branches might be taken in, such as veterinary or horticulture.

We understand that a number of students took this special course last winter that were unable to spend two years at the College. This surely is a cheap way of obtaining an education on the general principals of agriculture. There is no doubt that young men from the farm will learn more during this short term of what will be of lasting benefit to them, regarding the details of their work and methods of performing it, than from a lifetime of experience. The knowledge obtained of the different breeds of stock, and how to successfully handle them, will alone be worth all the money expended. The benefit of higher education, that does not tend to disincline young men to farm life, is of especial benefit to our country. Now that professions are crowded to overflowing, and the tendency of our high schools and city places of instruction, all have the effect of drawing the young men away from and otherwise unfitting them for the farm.



**Application of Chemistry and Geology to Agriculture.**

BY JAMES MILLER, MEAFORD.

(Continued from August issue.)

**CARBON—ITS PROPERTIES AND RELATIONS TO VEGETABLE LIFE.**

Carbon is the name given by chemists to the substance of wood charcoal in its purest form. It is from the Latin word Carbo coal. When wood is distilled in close vessels, or burned in heaps covered over so as to prevent free circulation of air, wood charcoal is left behind. When this process is well performed the charcoal consists of carbon with a small admixture of earthy saline matters commonly known as the ash when the charcoal is burned in the air.

Charcoal burns in the air produced little flame and with the exceptions of the ash entirely disappears. This flame produces a kind of air known among chemists as carbonic acid, which ascends and mingles with the atmosphere. Charcoal is very light and porous and easily floats upon water, but plumbago or black lead and the diamond, which are only other forms of carbon are heavy and dense, the former is 2½ and the latter 3½ times heavier than water. The diamond is the purest form of color and with a great heat it burns in the air or in oxygen gas, and like charcoal disappears in the form of carbonic acid gas.

Carbon forms a very large proportion of the substance of vegetable matter when it is free from water, amounting to from 40 to 50 per cent., by weight, of all the parts of plants which are cultivated for the food of animals or man, that is, in their dried state. Therefore in nature it will be seen that it performs a very important part, and becomes an important study for the farmer.

The perfect insolubility of charcoal disproves the common idea that it can be used as a fertilizer or as plant food in any manner, but its actions with other substances does give it an indirect agency in this way. It resists the action of the air as well as of the moisture, hence it is almost indestructible; it has the power of absorbing in large quantities into its pores, the gaseous substances and vapors which exist in the atmosphere. Thus of ammonia it absorbs ninety-five times its own bulk of sulphuric hydrogen, fifty-five times of oxygen, nine times of hydrogen, nearly twice its bulk, all of which are of the greatest importance in forming plant food, and on this property the use of charcoal powder as a manure probably in some measure depends. It also separates from water any decayed animal matter which it may hold in solution, hence it forms a very important part in purifying its surroundings. The action of charcoal can readily be seen upon plants by the dark green color of the herbage and the luxuriance of its growth. It has as much as one hundred square feet of surface in its exceedingly fine pores in every cubic inch. It also has the property of absorbing disagreeable odors in a very remarkable manner. Hence animal food keeps longer sweet when placed in or near charcoal. In cellars where potatoes and other vegetables are kept it has a powerful influence in keeping everything sweet and healthy. If thrown in closets it will deprive night-soil of its disagreeable odor and to convert it into a dry and portable manure. The half carbonized roots of grasses which have long been subjected to irrigation acts on the impure water by which they are irrigated, and this

gradually arrest and collect materials which go to make up plant food for the coming crop.

It changes ammonia into nitric acid, and this serves a most useful purpose as an ingredient of manure heaps and deposits, preventing its loss. Humus is another form of carbon though an impure one. It is the decomposed remains of vegetable matter which has undergone the slow process of decay. It exists in swamps in form of peat and black porous soil. The leaf mold so beneficial as plant food is chiefly humus. It contains various acids of geic, ulmic, and nitric acids. This class of substances is of great importance in agriculture, as by their decomposition they give up carbonic acid to plants, which is the greatest ingredient of plant food.

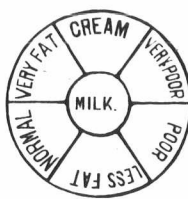
**The Dairy.**

**Testing of Milk.**

I see from Hoard's Dairyman there is no subject connected with farming which is receiving so much attention by scientists at experimental institutions and by leading dairymen in the United States as this question of testing milk. The testing of milk is becoming a necessity to determine the value of individual cows milk for the farmers benefit, and also for the determining of the value of different herds of cows milk which is sent to factories and creameries to be manufactured into cheese and butter, as the case may be. There has been good progress made in this direction during the past three years, but there is still much to learn about the cow—her breeding, feeding and produce.

The first simple instrument in use is the Heeren's pioscope, which gives six different shades of color for the same number of different qualities of milk, which gives a fair idea for comparing one quality of milk with another.

The centre of the block is hollow and a few drops of milk is put into it when the shaded glass is put over it, which always gives the same depth of milk, and the shade of cream is a bright, light, solid like color; each shade is darker as the milk is poorer, till very poor milk is a thin dark blue as the block is a dark ground on which the milk in the centre is shown. Whatever shade of color the milk is that agrees or corresponds with the shade of color on the glass; that gives the quality and character of the milk in the centre of the block; it gives no value to the constituents in the milk, but shows whether the milk is normal.

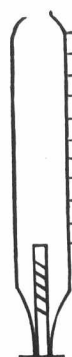


spindle of the lactometer, between pure water

The next instrument is the lactometer. This instrument is used the same as a densometer, which gives the specific gravity of the milk compared with the weight of an equal volume of water. The starting point to determine a fixed unit in order to make comparisons is one cubic inch of distilled water at 4° centigrade of temperature or about 39° Fahrenheit, put thus, 1,000. The specific gravity of liquids is found by comparison with this unit, thus the specific gravity of pure milk is 1,030 to 1,032, thus it is heavier than water. The lactometer is figured thus, pure cold water at 60° Fahrenheit is 0. Pure milk, which carries the lactometer higher at the same temperature, is marked at 100. The distance on the

and pure milk at the same temperature, is divided into 100 parts or degrees, and by this instrument the specific gravity of the milk is ascertained. Whether it carries the instrument at 100, or if water is added the specific gravity will be reduced and the instrument will sink deeper according to the quantity of water which has been added and thereby shows what percentage of water has been added to the milk; or if milk has had strippings of the cows kept out or cream taken off it will have the opposite effect of water.

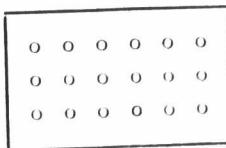
The lactoscope is an instrument which shows the quantity of milk by the amount of butter fat which the milk contains. This is a glass cylinder. In the centre at the bottom is a small porcelain column with black lines drawn across; 4 c. of milk is measured by a pipette and put into the cylinder and water added till the black lines are visible through the milk. The figures on the side of the cylinder give the percentage of butter fat in the milk. This instrument may not give exactly the percentage of fat in some individual cows, but for testing the milk of herds of cows as the milk is sent to cheese factories, for the purpose of detecting adulteration, it is the best known instrument at present,



and for all practical purposes in testing milk for the above purpose is perfectly reliable and satisfactory. Nothing short of a complete analysis can give the various constituents of milk correctly and in detail, but that is impracticable for factories at present and would be too expensive, but the time is not far distant when some means will be found by which milk will be analysed in a speedy and cheap manner which will not be disputed. If these three instruments all agree as to the character of the milk tested they are pretty correct in determining the character and quality of the milk.

At the Dairymen's Association, held in Stratford last January, this subject was fully discussed, and the correctness of the tests made by these instruments by the inspectors was fully sustained, and also the comparisons made by Dr. McFarlane, Chief Analyst for the Inland Revenue Department of the Dominion Government, corresponded very closely with tests of the same milk by the inspectors. These proofs are more valuable than any demonstrative act of evulsion made by those who are opposed to the testing of milk. One reason why there is opposition to testing of milk is, it is too correct and searching for some parties; it sometimes reveals secrets which some parties would rather keep hid.

There is a very useful way of testing milk, which cheese-makers can very easily and cheaply adopt at factories, that is, by cream glasses. A tin box with a loose cover and as many round holes cut in the cover as there are glasses to be used with milk to be tested. A wood box of the same size and the same number of holes cut in the top board, but so deep as one-third of the cream glasses will be above the cover of the box. This is useful to hold the glasses at all times but particularly when they are to be filled with milk for testing. Now, here is where great care is needful:—1st. To



take a true and correct sample of the milk. The best way is to take a dipper and catch, at three or four times, a little milk when it is run into the vat; empty this say twice out of one vessel into another so that it is properly mixed and fill the cream glass, and thus continue till the glasses are all filled, but I would advise to fill the glasses only two-thirds full; have the wood box just made so deep that exactly two-thirds of the glass will be on a level with the top of the cover, and when they are all filled to that extent set the box in a pail or tub of hot water to heat all the glasses to the same temperature; have the water in the pail about 100° and set the box and glasses into it and the temperature of the water and milk will soon equalize to 90° or 95°. Now, take it out of the hot water and fill up the other one-third of the glasses with cold water and set them in the tin box filled with the coldest water to be had, and set them away in a cool place. By treating milk in this way, the cream will rise in much less time and more perfectly than by testing the milk in glasses and set on a shelf, as it might happen to be.

Now, care must be taken to do everything correctly. Normal milk runs about 12% cream; with one-third of water added the percentage would be only 8% of cream; the glasses will show if everything is properly done, and this would give cheese-makers a very good idea as to the purity and quality of the milk they were receiving. Every farmer who keeps cows should have one of these cream testers and have a glass for every cow he milked, and he could test each cow's milk at the same milking so that the conditions would be as near equal as could be. I have no doubt but if every farmer would adopt this plan with his milk cows there would be some strange revelations made to him of a similar nature as was made in Egypt in the days of old when the lean cattle swallowed up the good ones and it did not seem to improve them any. I have no doubt but the day is not far distant when the good cows on the farm will not have the poor ones to carry, nor the good milk that goes to factories will have to pay for the poor milk before its owner gets anything. If farmers who are doing the best for the dairy cows and the dairy interests of the country understood how they were being treated by pooling their milk with others, and saw where their profits were going to pay for all the poor milk that comes into the factory, and the richer the milk from breeding or feeding, or good care, the more the man who owns the cows loses. If they only understood it the men who are putting the best milk into our factories would not submit to it one week, but the time is at hand when they will demand that every patron be paid fair value for what he sends to the factory.

DAIRYMAN.

#### The Balance of 1890, and All of 1891 for \$1.00

We want to double the circulation of the *ADVOCATE* in every locality, and have decided to present each of our old subscribers who will send in one new subscriber's name, together with \$1.00, a copy of our *Handsome Subscription Picture "Canada's Pride."* You may promise all new subscribers a copy of our handsome mammoth September number. Secure your subscriber's name at once, and send it in so that he will get the September number early.

#### The Milking Competition at London.

Absence from home in the Maritime Provinces since the end of June has hindered me from writing until now for the comfort of Mr. Guy, and the information of your readers who may have become interested in the milking competition at London and the correspondence which it has evoked. In the course of my journeyings through Quebec and Prince Edward Island particularly, I observed that Ayrshire blood had given form to many of the common cattle on the farms, and I learned from the farmers that the introduction of Ayrshire blood had meant cows yielding larger quantities of milk of better quality than formerly. I am concerned in protecting the reputation of that beautiful and useful breed against the imputation running through that part of Mr. Guy's letter which appeared in the June *ADVOCATE*. Ayrshires, Mr. Editor, will usually give a good account of themselves, even though the water in their milk be counted to have no rateable value. I am prepared to reassert what I wrote before (but I am not to be responsible for what Mr. Guy puts in quotation marks as mine), that "Water in milk has no real or rateable value, so far as I know, whether it be put there by a cow or a man."

Why is not by any means all water as your correspondent implies. The whey from the milk of Ayrshire cows contains about as large a per cent. of solids, and consequently no larger a per cent. of water, than the whey from the milk of other breeds. I do not quite perceive why Mr. Guy should want to teach that the whey from Ayrshire cows is all water. The solids that give whey its feeding value are the sugar, the casein, the albumen and the ash which the water holds in solution, together with the small quantity of fat which it holds in suspension in the form of tiny globules. The scale of valuation that was adopted and used at London gave credit for all of these solids that were contained in the whole of the milk, which of course included the part that would have become whey, if cheese had been made.

Permit me a quotation from Mr. Guy's letter: "If water is added to milk by a milk vendor it can be detected by analysis and he is liable to be punished for a misdemeanor."

By Chapter 425 of the Laws of 1889 of the State of Wisconsin it is enacted that if it shall be proven that the milk sold or offered for sale or furnished or delivered as pure, wholesome, and unskimmed milk contains less than three per centum of pure butter fat the said milk shall be held, deemed, and adjudged to have been unmerchantable, etc. That would indicate that over there the law makers desire to keep the cows from being guilty of a misdemeanor.

Again Mr. Guy puts in quotation marks, "the standard of points as given by me from the Ohio Farmer are erroneously calculated and not applicable to this Province," and credits me with having written the sentence. What I did write and what was printed in the *ADVOCATE* was, "the tables of points which he gives are erroneously calculated from standards of valuation, etc." The tables were made up by Mr. Guy, evidently by adding together the percentages of butter fat, and of the solids other than fat, and counting the total sum thus obtained as the total quantity of solids in the milk without any regard to the quantity of milk given. I do not understand why Mr. Guy should wish to

have milk valued by its *quality* as shown by analysis only, without regard to the *quantity* of the yield. Ayrshire cows usually give a large enough *quantity* of milk to make even their most blind friends or opponents willing to accord them fair play in that regard.

But then the standards of valuation which Mr. Guy credits to the Ohio Farmer, I presume are those of the British Dairy Farmers' Association. They agree, except in this, that Mr. Guy's letter does not mention the last part of the standard of the British Dairy Farmers' Association, viz.: "If the milk contains less than three per cent. of fat, a reduction is made of ten points." Probably this part of the scale of points was not quoted by the Ohio Farmer, but it exists as part of it, and its application might have convinced Mr. Guy that other standards provided for an "unfair and absurd way of judging" according to his notions. That the last-quoted rule of the scale of points is a fair, though unusually an unnecessary one, may be inferred from the facts brought out by the Dominion Chief Analyst, Thos. Macfarlane, Esq., in his Bulletin No. 11, on Summer Milk. At about the same time during which he conducted the analysis for the *ADVOCATE* milking competition he analysed samples of milk furnished to him at London from many patrons of no less than sixteen cheese factories. He found the average per cent. of butter fat to be 3.80. To claim that milk that has less than three per cent. of fat is specially adapted for cheese making is on a par with the claim of the man who wanted to sell what he called a "coon dog." "Is he good on coons?" asked the intending purchaser. "Of course he is." "Have you tried him much?" "Well, no, but I find he's good for nothing else, so I guess he must be good for coons."

An insignificant error in the copying of figures, with I suppose the slight alterations, gave Mr. Guy a chance to quibble at the figures without trying to gainsay the conclusion. Let me correct the details of my previous illustration, which was merely used to show that Mr. Guy was using figures while evidently mistaken as to their meaning. Take the points, as stated by him, from the Ohio Farmer's standard, at his own figures of 582.06 due to the Ayrshires and 580.63 due to the Jerseys, then if the points claimed by Mr. Guy for each be divided equally merely to bring the figures to something near a cash value in cents for the milk, the Ayrshires will stand with 160.61 (not 160.68 as previously stated), as against 160.21 for the Jerseys. Now, if Mr. Guy will calculate the per cent. of profit on the value of feed consumed by the Ayrshires, \$148.8, when their milk is valued at \$1.60.61 (not \$1.60.68 as previously stated), he will find that it shows 7.93 per cent. (not 8 per cent. as previously stated), and if he will calculate the per cent. of profit on the value of feed consumed by the Jersey, \$120.07, when their milk is valued at \$1.60.21 (as previously stated), he will find that it shows 33.43 per cent. (not 33 per cent. as previously stated).

Mr. Editor, I would not have taken up so much space replying to the strange statements and reasonings of Mr. Guy, but for my desire to prevent the valuable, excellent, and serviceable Ayrshires from being injured in reputation and misrepresented by the pens of their friends.

A meeting of the Breeders of Dairy Cattle was

held in Toronto to discuss the best standard and scale of points for use in the future. Those who have raised most unreasonable objections to the one adopted last year were conspicuous by their absence. The agitation and discussion is doing good. Indifference and apathy do not imply progress; the opposite may indicate preparation for advancement along the right lines.

JAS. W. ROBERTSON.

**The Dairy Test Again.**

BY D. E. SMITH, CHURCHVILLE, ONT.

Dear Sir,—Kindly allow us space to answer Observer. It seems evident that Observer has observed that Stockman could not successfully defend the Shorthorns, else he would not have made such a big attempt to assist him. He has also observed that the Holsteins are rapidly becoming the farmer's and breeder's general favorite, hence his misleading and ill-disposed remarks about them.

He says that what we said about the origin of Shorthorns was not true, and then expects your many intelligent readers to believe that the blank assertion of one who styles himself Observer should be taken without question. Let us consider the matter without prejudice and get at the truth.

In a previous letter we quoted from the Consular Reports, which are prepared by the United States government. Albert D. Shaw, U. S. Consul, in England, says, at the introduction of this Report, dated Manchester, Feb. 19th, 1884: "I was most fortunate in securing the services of James Long, of Netchin, England, a well known authority, both in England and on the Continent \* \* \*. It will be found that great care and attention have been given to this report, and that its impartiality and fairness are beyond question." Further on he says, "prepared by one who is perfectly free from bias in any respect."

We took our quotation from Mr. Jas. Long's report, and will quote it again for Mr. O.'s consideration, as we believe it to be impartial, fair and free from bias: "These cattle (from Holland) were of larger bulk, and the cows better milkers than were then known. The new breed formed by the admixture and crossing of these imported animals soon asserted their superiority over all other races. Such was the origin of the Shorthorn." In these same reports we find that Holland, the home of the Holsteins, sent to England alone \$4,342,002 worth of cheese and \$124,924,128 worth of butter in a year, and in these products beat the world. Yet, Mr. O. tries to leave the impression that their milk is not good.

Mr. O. next quotes from a speech of Prof. Robertson's: "The cow that was most profitable to a farmer was an animal that produced first calves, second milk, third beef." We thank Mr. O. for making more widely known the above quotation, as it very well suits the Holsteins. First, calves: For strong, healthy and thrifty calves, we think every one who has seen or owned a Holstein calf cannot help admitting that they are all that any farmer or breeder could desire. Second, milk: Everyone now admits that Holsteins are the best milkers in the world, except, perhaps, a few such persons as Mr. O. or Mr. S., who would object to anything that was not a Shorthorn. Third, beef: Hitherto, we have not strongly claimed much for the Holsteins in beef production, as we believe they are pre-eminently a dairy breed, and we are anxious to see them remain so. But, as Mr. O.

has forced us to speak out we will do so, though briefly. Holsteins have been developed in the hindquarters—that is about the udder—and hence are strongly wedge-shaped, so when they are fattened they put most beef on the hindquarters, just where it is best.

We will quote from the Breeders' Gazette of Nov. 20th, 1889, about Holsteins at the Fat Stock and Dairy Show, Chicago: "The heifer, Spot, showed the remarkable weight of 1,010 pounds at 322 days, an average gain per day of 3.13 pounds, one of the very largest developed by the entire show, and she was as smooth and neat as she was ripe. The steer calf, Ohio Champion 2nd, with a weight of 765 pounds at 175 days, had to his credit a gain per day of 4.13 pounds."

**Milk Legislation and Standards.**

BY WM. THOMPSON.

From Provincial and Dominion official quarters come recommendations to establish a legal standard of fat and other solids in milk. What are the objects of milk legislation? Three occur to me:—1st. To secure honest milk; 2nd. Wholesome milk; 3rd. Milk of good quality for whatever purpose used. Existing legislation in Canada, such as the Dominion Milk Act, the Ontario Act to "provide against frauds in the supplying of milk to cheese and butter manufactories," and municipal milk control under local Boards of Health, is not based upon an arbitrary standard of "legal limits" or a percentage of total solids or fat alone below which, if a vendor's milk fell, he would be liable to fine or imprisonment. Is it wise that such a principle be adopted? Will it best tend to secure the three objects in view?

Now, in the first place, as a gauge in valuing milk, the percentage of butter fat seems to be the most readily measurable. Hence it is the element to which experts naturally turn, many methods more or less simple for determining it being in vogue. Fat is moreover conceded to be the most variable element in milk. The percentage varies in different cows and with different foods, treatment, health and conditions of weather. In 138 samples of pure milk analyzed by Dr. MacFarlane, Dominion Analyst, the fat ranged from 2.67 to 6.13; solids, other than fat, from 8.10 to 9.61, and the total solids from 10.66 to 15.54. The variations in fat, for example, in the product of the same cow, under different conditions or feeding, are remarkable and may often be beyond the owner's control. At Cornell University Experiment Station two lots of good cows, well bred, well cared for and well fed were in an experiment to test the effect of grain rations on pasture. Now, while the analyses for a certain period showed the average for both lots to be 13.56 per cent. total solids and 4.58 fat, on one day the milk of one lot fell below the 12 per cent. standard and on several others this percentage came dangerously near the "dead line." Had a sample been taken on the one day specified the State authorities might have fined the Station people \$200 and subjected them to six months' imprisonment. A citizen of one State was imprisoned because his milk was below the legal standard. Manifestly such laws are unjust. Prof. Roberts admits that. Prof. Ladd says:—"A law that declares any milk falling below an arbitrary standard as having been adulterated is unwise." Prof. E. W. Stewart warns Canada against falling into the error that States have made in this matter. Mr. Geo. Abbott, before the American Guernsey Cattle Club, said:—"No legal limits should be estab-

lished; to do so is unwise, impractical, unjust and worse than useless."

There is another objection. Such a law affords no encouragement to the man who keeps good cows, treats them kindly and feeds them well, producing milk containing 4.25 per cent. fat, when he has to pool it or sell it at the same price as a neighbor whose fluid is just up say to 3.25 per cent. standard. The only incentive he has is to dilute his rich milk down to the legal limit or else be imposed upon.

The Provincial Milk Act, sustained by the Court of Appeal, prohibits watering, skimming, or keeping back strippings and authorizes the owners or managers of cheese or butter factories to take samples from the cows when such practices are suspected, for purpose of test. In this way each cow or herd is its own standard and no "legal limit" is necessary in such a case. This act also prohibits milk tainted or partly sour being sent to factories.

The enlightened dairy thought of the day is converging to this idea—to pay for milk according to its contents in fat or total solids. Ontario creamery men use the oil test churn to determine the quantity of churnable fat in every patron's cream. If a Butter Extractor, or a DeLaval Separator with butter-making attachment is used the patron's milk goes in and the butter comes out to tell its own story on the scales. No "standard" needed there.

The Medical Health Officer of London, Ont., whose first aim is to secure wholesome milk, after several inspections yearly of every milk vendor's premises and cows, and analyses of his milk, publishes the result in the city papers, scaling the milkmen according to fat percentages, highest coming first. Condition of cows, stables, food, etc., is also reported. Citizens can see who sells the best milk and can buy accordingly. In three years that system has raised the average percentage of fat from 3.43 to 3.90. True, the Board named first a 3.25 per cent. fat standard and this year put it at 3.59, but it is merely nominal. The milkmen are educated away above it and find it to their dollar and cent interest to keep above it. If any deluded man is caught watering or skimming he is liable to penalty.

With regard to cheese factories, assuming that the contents in fat were agreed on as a fair measure of the value of milk, then by the systematic use of such methods as those of Short, Parsons, Patrick, Frilyer and Willard, Cochran or Babcock the pay of patrons could be equitably divided. Under the pooling system this is not done. The speediest, simplest and most economical test is the centrifuge-sulphuric acid method recently invented by Dr. Babcock, of the Wisconsin University Experiment Station, by which, after samples are taken, 60 tests can be made and bottles cleaned in one hour at a trifling cost.

I recently assisted in testing the milk of over 60 patrons at one factory and the range of butter fat in honest samples was from 3.50 to 4.50 per cent. (rather high range). The intelligent readers of the FARMER'S ADVOCATE can see the injustice of such a pool as that without further comment.

To conclude: Does it not seem clear that a lowest "legal limit" standard, if too low, will be worse than useless, if too high an injustice to some honest men, that it is unnecessary and in the main wrong in tendency? If any legislation be required should it not tend to promote the sale of milk according to the actual value of what it contains of which the weigh scale or quart measure are not complete gauges?

**The Milk of Cows.**

For the FARMER'S ADVOCATE, by Jas. W. Robertson, Dairy Commissioner.

The milk of cows, as the dairyman needs to know it, is composed of substances partly in solution and partly in suspension. It may be described as a thin emulsion of fat in a serum or watery solution of albuminous matter, sugar, and mineral matters. When obtained from a healthy cow in its normal state, it has a constant tendency towards acidity. It will change the color of litmus paper before lactic acid has commenced to develop. A small quantity of carbonic acid is generated soon after it is drawn if left warm, but that can be taken out of agitation and aeration. The true sourness of milk is caused by the development of lactic acid. The specific gravity of milk varies between 1029 and 1035 at 60° Fahr., that is to say, a quantity of milk equal in bulk to as much water as will weigh 1000 pounds at 60° Fahr. will weigh from 1029 to 1035 pounds at the same temperature. The effect of each per cent. of fat is to decrease the specific gravity, because the fat of milk is lighter than its other parts. The effect of each per cent. of solids other than fat is to increase the specific gravity by .00375 variation in quality. The total solids of ordinary milk vary between 12 and 16 per cent. In some unusual instances the range of variation has been known to be between 11 per cent. and 20 per cent. of total solids, and between 2 per cent. and 10 per cent. of fat. The solids of milk are its only constituents that have any real or rateable value. The water that is put into the milk by the cow, while the process of elaboration is proceeding in her udder, is worth no more per pound or per gallon than the water that may be put in by a man when it has come into his hands for use or sale. The limits of variation of the solids, other than fat, are usually within one-half of one per cent. in the same cow at different periods in her milking season. Different cows of the same breed rarely show a variation of more than one per cent. in the solids, other than fat, contained in their milk; the greatest difference exists between cows of different breeds; it will sometimes reach as much as two and a-half per cent., as between the milk of cows giving extra rich milk and those yielding a very poor quality. The solids, other than fat, or the solids in the serum of the milk also increase slightly during the milking season. The rate, is about .04 per cent. of solids not fat per month.

**COMPOSITION OF MILK.**

The average composition of milk from cows may be stated as:—

	COLOSTRUM per cent.	NORMAL MILK per cent.
Water.....	75.8	87
Fat.....	2.6	3.75
Casein.....	15	3.80
Albumen.....	3.6	4
Sugar.....	3	5.70
Ash.....		

The strippings of milk designate the last portion drawn from the udder of the cow at each milking, and they are richer in fat than the milk first obtained. The first milk may contain less than one per cent. of butter fat, while the last milk usually yields more than ten per cent.

**CREAM.**

Cream has no definite or unvarying composition. It is a word used to define that part of milk into which a large per cent. of its fat has been gathered by setting or by centrifugal force. It is composed of the same constituents as milk, but they are not in the same or in any constant

relative proportion. Frequently the cream of hotels is of a beautiful blue color, but that liquid does not belong to the products of the dairyman. The results of a great many analyses show that the cream of commerce may contain anywhere from 8 to 70 per cent. of fat. All the fat of milk is held in suspension in its liquid or serum part in the form of tiny globules which have no coverings of an organic nature, but are present in the form of an emulsion. The different constituents of milk have different values, according to the ultimate purpose for which they are to be used. The fat is mainly valuable for giving cream its quality, butter its main substance, and richness to the body of cheese.

**QUALITY OF DIFFERENT ELEMENTS.**

The casein is the portion which is coagulated by the action of rennet in the process of cheesemaking. Albumen may be seen as a thin white scum on milk that has been scalded or boiled; it is similar in composition to the white of eggs. Sugar is one of the heat producing and fattening constituents of milk. Lactic acid has no feeding value, but being anti-febrile in its action with properties that slightly aid indigestion, a small quantity of it is not unwholesome in milk for drinking or for feeding in the stables. The ash of milk furnishes the mineral matter taken into the structure of bones and flesh by the animals which consume it. Where the milk is consumed in its liquid form or reduced in bulk to any of its products, such as butter, cheese, veal, or pork, the constituents which are valuable, and aid in any of the life sustaining products obtained from the cow, are its solids only.

**USE OF WATER.**

Water is always nature's vehicle for moving things about in the animal and vegetable worlds for the support of different forms of life. The vehicle in itself is for carrying the constituents which the eater seeks to appropriate. The ever changing demands and preferences of markets make it impracticable to attach a definite value per pound to the several constituents of milk. The work of a skilful manipulator may give to anyone of them an increased value. Milk sugar in the raw state in the milk has very little value indeed, as it can be replaced for the feeding of calves by substances that are plentiful and cheap, but in its refined state fit for druggists' use, it is worth perhaps 75 cents per pound.

**VALUE OF PARTS.**

Judging of milk from a purely dairy standpoint I would estimate that under the present conditions if the butter fat of milk is worth 16 cents per pound in its unprepared or unmanufactured condition, the total solids, other than fat, in the milk will be equally valued at 2½ cents per pound.

**TESTING MILK.**

For the guidance of cheesemakers and others who desire to make quick and reliable tests of the quality of milk let me suggest the following:—

1. Examine its appearance, color, taste, smell.
2. Examine by the pioscope.
3. Test it by the lactometer.
4. Examine it by the lactoscope.
5. Examine it by the cream gauge.
6. Rule by Mr. E. W. Martin for the use of lactometre and lactoscope to determine the solids in milk: Multiply the per cent. of fat found by the lactoscope test by 0.001 and subtract the result from 1.0000; call this number "A"; find the real specific gravity from the table of lactometer degrees; subtract "A" from this

and divide the result by 0.00375, the quotient will equal the solids not fat.

7. In examining as to its sweetness for cheddar cheesemaking, scald or boil a sample; if it coagulates it is unfit for use.

8. A test for ripeness may be made by adding a few drops of extract of rennet to a given number of ounces of milk.

**Garden and Orchard.****Picking and Keeping Fruits for Family Use.**

BY W. W. HILBORN, LEAMINGTON, ONT.

This article is intended more especially for farmers and others who grow their own fruit and wish to lengthen the period as much as possible through which fruit may be kept in a fresh state for family use.

Apples, first in importance, may be kept in good condition until midsummer, or until the new fruit is ready for use. It is a common practice among farmers to sell all their apples that the packers can be prevailed upon to put up for shipment and keep the culls for their own use. Such fruit is usually either small, imperfect specimens, or injured by the Codling Moth, and will not keep well; hence, long before the new crop comes in apples have altogether disappeared from their tables. Does it not appear like mistaken economy to dispose of all the first-class fruit? A few bushels of first-class N. Spys, Kings, Greenings, Baldwins, Russets, etc., should be carefully gathered as soon as ripe and packed away for use in late winter and spring. So much benefit and pleasure can thus be derived that it should be the rule, and not the exception, as at present.

Apples to keep well and be of the best flavor must be picked as soon as ripe (this may be known by the stem parting readily from the tree) and kept in a cool, damp place. If a good cellar is available they may be taken directly to it. Shelves may be made any convenient length and width, with sides five or six inches wide. These shelves may be placed one above another with just sufficient room between to handle the fruit, say ten inches. Fruit kept in this way may be looked over often with little difficulty and any decaying apples taken out. Nearly all varieties keep splendidly on shelves. The Russet family, however, does not; they shrivel badly and should be kept in tight boxes or barrels. Another good method of storage is to make boxes about ten inches deep, sixteen inches wide and two feet long. These will hold about one and a-half bushels. Place the fruit intended to be kept longest in the bottom boxes. When one box is filled place another on top, which answers in place of a cover, and continue until the required number are filled. This method has some advantages over the shelves, as the fruit in one box must be used before another is accessible, while with shelves it too often happens that the finest samples disappear too rapidly, leaving the sample inferior late in the season. This is especially true where a family of children have daily access to them.

The conditions required to keep apples perfectly is a cool, damp atmosphere, with the temperature just above freezing and as uniform as possible, and good ventilation. Where a cellar is not obtainable the old fashioned method of burying in the ground may be adopted. It is

doubtful if any other method now practised will keep fruit as perfectly for use in spring. It must, however, be properly done or the results will not be satisfactory. Select a dry spot, place a layer of dry straw to a depth of not less than six inches under the fruit and eight to ten inches deep over it; this will be sufficient to absorb the moisture arising from the fruit and prevent them from having any odor or taste of the soil. Cover the straw with earth to the depth of two or three inches at first, leaving the straw exposed at the top for ventilation. This may be covered with boards to prevent rain penetrating. As cold weather comes on cover with more soil and coarse manure just deep enough to prevent freezing. In the milder sections, where the fruit often ripens up early, it is best to gather as soon as it is ripe and lay in heaps in the shade of the trees with a slight covering of straw, there to remain until there is danger of frost, when it can be placed in pits as directed above.

Pears should be picked as soon as the stem will part readily from the tree by taking hold of the fruit and giving a quick turn upward.

Early varieties can be at once placed in a warm room, where they soon become fit for use. If left on the tree to get fully ripe or mellow they are not nearly so fine in quality as when gathered and matured as above directed.

Winter varieties may be kept in a cool cellar and a quantity taken out at a time and placed in a warm room to ripen as required.

Plums cannot be profitably kept any considerable length of time after they are ripe enough to gather. This, however, is no great disadvantage, as they are used principally for canning and are in the best condition for that purpose when fresh from the tree, just before they begin to turn soft.

Perhaps no other fruit we grow, except apples, can be kept in as fresh state, fit for use, as the *Grape*. They may be kept until May with little trouble, and even much later by special care. Select such varieties as Vergennes, Salem, Agawan, Lindley, Isabella and Diana. They must become perfectly ripe before gathering from the vine and picked when quite dry and left to sweat for several days before packing. This may be done by placing on a table in bulk in any place where there is free access of air, after which they can be placed in baskets in layers, with paper between the layers, and placed in a cool room or cellar, where the temperature can be kept as uniform as possible. Packed thus they will usually keep until mid-winter in fine condition. For those intended to be kept still later, cotton batting can be substituted for paper. Cork dust, such as foreign grapes are packed in, will perhaps keep them still later. It should be thoroughly dry before being used. There is no difficulty in keeping Vergennes or Salem until July in good condition with this method of storing. A friend of mine keeps his grapes by placing them in layers in stone jars, with paper between the layers, and bury them six to eight inches deep in the earth, in some spot where the water will not lie. Cover the crocks loosely with a board or stone before putting on the soil. When the earth has frozen to the depth of four or five inches, some mulch, coarse manure or any material should be put on the ground to prevent the frost from penetrating any deeper, the main object being to keep the fruit at as even a temperature as possible. I have not tried this latter method, but have known it to be successful. With either method care must be taken not to injure or in any way break or bruise the skin of the grapes. Any thus injured must be taken out before packing.

**Insecticides.**

By Prof. A. J. Cook, Michigan Agricultural College.

(Continued from August issue.)

FOR GRAIN INSECTS.

But perhaps the most important use to which this liquid can be applied, is in the destruction of insects that attack grain. By its use, moths and beetles which attack the various grains in mills, granaries or in sacks, boxes and barrels, can be exterminated.

Several years ago I was employed by one of the leading trunk lines of railroads to investigate their wheat houses, which were infested by weevils and moths, in so much that the grain was seriously damaged.

In these investigations I learned that it was possible, easy and inexpensive to rid even large bins of grain of such pests, simply by the use of this liquid. If the building was close we had only to shut it up closely, throw in this bisulphide of carbon—otherwise we must throw the liquid onto the grain in the bin, and cover with oil cloth or any air-tight covering. As the vapor is so heavy it will sink to the bottom and seek out the insects, and mete out death to them.

I usually use an iron tube—gas pipe—to place the liquid down deep into the grain; but now think this was not necessary. A sharpened stick that just filled the gas pipe made it easy to run the pipe into the grain. Then by withdrawing the stick the liquid could be placed near the bottom of the grain, when the pipe was quickly withdrawn. By this method, of course the fumes would be less annoying while we adjusted the cover. Not long after these experiments, my friend Prof. W. W. Tracy, explained to me the great magnitude of the pea industry—raising peas—in northern New York. He said that this entire business was threatened with destruction by the terrible ravages of the pea weevil. Can you not, he asked, give us some cure for this great evil. I said yes, build practically air-tight houses, and use bisulphide of carbon. Prof. Tracy explained to the farmers just how to build the structures, and to use the liquid. And so the industry was saved; and to day these "Tracy houses" are in common use by the pea growers, who produce thousands of bushels of seed peas, and destroy the weevils in this way. D. M. Ferry & Co., of Detroit, have purchased from a single party in Jefferson county, New York, eight or ten thousand bushels of peas on a single contract. Each grower has one of these "bug houses." The houses are made air-tight; even the door is made very close fitting; and is made still closer, by pasting paper over the edges, upon closing it, after filling the house with sacks of peas. An air-tight flue at one end opens at the very top into the building and at the bottom out doors. A sort of chute with an adjustable air-tight valve is arranged to facilitate the turning in of the liquid. The liquid is turned in till the odor shows that the vapor is pouring out at the bottom of the flue. Then of course the air has all been forced out by the vapor, when the valve is closed. It is left closed for three days, then the doors are opened, so that the vapors may escape, when the weevils are all found to be dead. As already stated, the vapor of bisulphide of carbon is about two and one-half times heavier than air, so we easily see how the heavy vapor would settle and force the air up, and finally when the room was emptied of air and filled with these vapors the

vapor would be at the top of the room, and would pour down and out of the flue. Of course, from the law of diffusion of gases, the above cannot be strictly true, though practically it is so. Some of the growers, as Prof. Tracy informs me, do not build the houses, but rely upon a more simple method to use the carbon. Yet from the fact that accidents have occurred, and an occasional failure to kill the weevils, most of the growers now have their "bug houses." Prof. Tracy informs me that the firm of D. M. Ferry & Co. use the carbon to destroy the bean weevils in returned beans from the south, the cabbage seed weevil, and all other grain and seed insects. They simply use an air tight bin. Of course a water tight barrel or cask with a close oil cloth, buffalo robe, or other air-tight cover would suffice as well.

Some years since, one of the most extensive millers of Michigan, whose mills are situated in the very centre of one of the largest cities of the State, came to me with the very dolorous complaint that his mill—just purchased—was swarming with insects. There were caterpillars, and the larva of several species of beetles. He was discouraged, and said he wished he could burn the mill up, he would do it. I showed him how fatal bisulphide of carbon was to insects, by experiments in his presence; showed him how inflammable it was, by dropping a little in a jar, and in a moment dropping a lighted match into the same jar; explaining to him the possibility of destroying the insects and suggested that with due caution there would be no risk in the use of the liquid to free his mill of the pests. I need hardly say that he left me in a much more cheerful mood. This gentleman cleaned his mill as thoroughly as possible, closed it as completely as he could, and then used gallons of the bisulphide of carbon. He locked his mill and permitted no one to enter. He soon wrote me a most joyful letter. He said he had "utterly cleaned the bugs out." I went to see this gentleman a few days since. He says he regards this use of the carbon of great value to him. Each year since I first gave him the information, he has cleaned up and applied this insecticide, except last year, when the comparative absence of insects made it unnecessary. He uses about twelve pounds at once. He says it is wonderful to note how effective even a little of the liquid often is. He has purchased hundreds of gallons of the liquid, purchases it directly of the manufacturer at Cleveland, Ohio, in one hundred gallon cans at from ten to fifteen cents per lb. He always applies it on Sunday morning, when no one else is at the mill, watches it himself, and lets no one enter till he opens up and thoroughly ventilates the building. He thinks very highly of this liquid; not only because it is so excellent as an insecticide; but, as he says, you can throw it right onto flour, and soon it will vaporize, and the flour is in no wise injured. I asked this gentleman if he had read the account of the moth invasion of the Toronto mills. He said he had. I asked him what he thought of the report that a German had used this bisulphide of carbon with no success. He answered: They did not have me to use it. Use thoroughly enough, said he, and I do not believe any insect could stand it. I said what about the danger in its use? With caution, said he, there is no danger. "You showed me that the gun was loaded, and I kept the muzzle pointed from me."

[TO BE CONTINUED.]

## Family Circle.

## FOOLING AWAY HIS TIME.

BY FLOYD K. ROYCE.

"Taint no use to talk about it, Phoebe, for I shant consent to fool away enny of my money in sendin' that boy to no hifalutin' schule. All I ever learned I got at the old deestrick schule, an' I guess it's good enough for enny of our boys."

"But times have changed since then, father. Fifty years ago a young man could begin life with a smaller amount of book-learning than is now necessary for him to possess, if he would compete with others for the honors and positions we hope to see our boys gain. We have toiled early and late for thirty years on this farm, Joseph, and while there has been much of happiness in our lives, yet there has been much of sorrow, and while we have gained much of knowledge that we have never been able to gain much to lay aside for a rainy day has caused us anxiety for the future."

"Yes, that is just what I am trying to make you understand. We haint got but a thousand dollars in the bank now, an' I want to buy that piece of medder of Deacon Asher, too; but you want to fool it away in sendin' that boy off to college. I vum, I never could more'n half understand you, Phoebe."

I was an unwilling eavesdropper to this conversation between my parents. I had come in from the yard with a pail of foaming milk in each hand, and to lighten the too heavy burden the care of the and to lighten the too heavy burden, I stood in the dairy placed upon my little mother, when they came into the room by the side of the room and I was made an involuntary, yet, I must confess, a most anxious listener. My entire life had been passed upon the farm, and one who has endured the hardships of farm life for a few years knows how irksome such a life can be made, if the main idea is to work more with brawn than brain. I was in my eighteenth year, and the only surcease from labor had been the few winter months passed at the district school. These few months of each year had indeed been an oasis in the hard life, and the grains of knowledge gleaned from the chaff threshed among us by the too often incompetent teacher, who was secured more times because he could be gotten cheaply, than because he possessed any particular ability for a teacher of the young, were eagerly picked up and added to, as opportunity would permit. I had at last, by hard work evenings, after the chores were done, fitted myself to pass the preparatory examination at the State Industrial University, and now desired the consent and assistance of my father to take the four years' course in mechanical engineering.

My father was not an unkind man at heart, but he had become so surrounded with the ideas of his own importance and power that he could conceive of nothing higher and grander in a boy's life than to be able to imitate himself. No one in the whole neighborhood could keep up their "station" in corn-huskings, hog-killings, or log-rollings, no one who knew him would for a moment attempt to equal let alone trying to excel him. It was true that Deacon Asher's new hired man, a stranger in these parts, had attempted to throw him in a wrestling match at one of the raisings; but he was quickly sent to the earth, raised my father another chagrined spirit, which raised him another notch in local fame, although it gained him an enemy in his defeated antagonist. Father was a heavy, muscular man, as may be imagined, and I gave promise of nearly equaling him physically, but the resemblance ceased. He was light haired, there I resembled by dark-haired mother in complexion and disposition. I was fond of athletic sports, but did not care to indulge in the rough matches of the neighborhood which so frequently engendered ill feeling. My three brothers, all older than myself, took naturally to the farm life; they had grown up uneducated, and while not my equal physically, they resembled my father in more respects than I did. As may be presumed from this, I was drawn closer to him, while I they were seemingly drawn closer to my mother, and always needed spending money. She had been better educated than my father in early life, and by insisting upon taking her favorite magazine, a treat always to me, she had kept fairly abreast of the times, and sympathized with my ambition to make something of myself.

We had talked over my hopes and plans the night before, and like the dear little mother I had always found her, she insisted upon gaining father's consent to our arrangements. And this was the conversation I was overhearing. I must confess that I leaned my head a little closer to the window to catch my father's reply, and in doing so was afforded a view of his face. From the stern look I could see gathering in his eyes, I knew my hopes were doomed to disappointment, even before his next words confirmed this opinion. My mother had added another in reply, which I did not hear, but I could see him turning nervously on his heel as if anxious to have a disagreeable task ended. "I don't intend to tell it, just yet, but the fact of it is, mother, Jed thinks o' gittin' married this fall, after the work is out of the way, an' we must buy the Deacon's medder to make the farm large enough for another. Jed spoke to me las' night."

"But, Joseph, you have already helped Jedediah to a thousand dollars, and I should think that in the

spirit of fairness to all of our boys, he should now be willing to wait."

"Taint no use to throw up about what Jed lost in buyin' that race boss," retorted my father angrily, for my mother had touched him in a tender spot.

My brother had purchased a high-priced trotting horse a season or two before, and he and father had been in high favor at the annual meetings of all of the county fairs for a time, as their horse was a good one and usually won; but one day after a very successful race on Deacon Asher's track, he and Jed had some intoxicants (father declared solemnly that it was nothing but cider, but Jed winked at me when he was telling it, so I knew Deacon Asher's hired man had eyed up with him by putting a "stick in it") became mixed up with the race horse and another man's carriage, and the result was that the trotter lay down and died, and when father sobered up he found that he had a thousand-dollar note to pay which Jed had gotten him to sign with him for the horse. He now wanted an excuse to get angry so he could have the better heart to refuse her request and continued:

"Jed has always done the best he could an' I shall help him. The money is mine."

"Stop, Joseph!"

The voice was that of my little mother, but so changed with the emotions that were stirring her heart that had I not been looking into her pained face, it would have seemed as if it were a stranger speaking when she commanded him to stop. The idea of his meek little wife assuming to question his right to dismember over her, had never entered my father's head. He had ruled so long and with such a big hand, that he had ruled so that his mere word was regarded as law. Now he stood in open-mouthed silence while my mother, with her heightened color on each of her thin cheeks, spoke with a vehemence he never before imagined she possessed:

"You have always assumed to control everything, Joseph Astery. Our boys have, with the exception of Preston, been moulded by yourself into what you considered hard work for fifty years, thirty years of them as your wife, and all that I have received in return for this hard, unceasing toil for you and our boys has been my board and the few clothes that have been begrudgingly doled out to me. Don't start, Joseph, you three of our boys, while they have always had an affectionate feeling for their once you early learned to pattern after their father and have come to treat me with a rough regard such as one might assume towards an obnoxious servant. I have taken this treatment without a murmur, believing the whom I had so loved and so toiled and struggled for through the helpless years of infancy, really loved their old mother when once you probed the coat of carelessness they had put on towards me. My heart has been faithful to them all; but, Joseph, if you think that Jed and the other two seem nearer to you, because they are more like you in character, can you blame me if my heart beats with perhaps a deeper love for our youngest son, who, while he resembles you in his physical strength, has always been so tender and considerate of his old mother that while they add to her heavy cares and burdens by their carelessness, he lightens them by his thoughtful wife, Joseph Astery, for thirty years. We have, as I supposed, until you spoke, been laboring for mutual benefits. Many times I have thought your decisions not generous ones, but never until now have I rebelled against them. Now, I demand that Preston be given a thousand dollars of *our*, not your money before Jedediah is given another like amount."

My mother, usually so sweet-tempered, was now thoroughly aroused and determined to throw off the yoke and assert her independence for once, if she suffered the form of wrath surely expected to follow her words, through love of myself, I can not resist the temptation to stop, even as I write these words, and gently stroke the gray hairs of the one who endured so much for me. Surely one cannot measure the depth of a mother's love. But I digress; sure the first time my father had stood quietly under rebuke. Perhaps the justice of her remarks forced their way through the years of selfishness, or may be the picture of the little woman, as she so saucily faced him, brought back the memory of the days so long ago when he was wooing the bright-eyed lass, and this tempered the hot words that at first rose to his lips. Whatever the influence, I was compelled to admit that I did not understand the power that controlled my father, for the big, strong man was suddenly subdued; the overbearing air disappeared, as if by magic, and, instead of an angry word, he quietly said:

"You may be more than half right, Phoebe, but I don't know as I would own it except as between ourselves. If it was for any other purpose, to buy a farm, or a thrashing machine, or anything of enny account, why, I vum, I'd be sorry I promised Jed an' let you have the money for Pres; but I can't reconcile myself to seein' him throw away a thousand dollars, good money, let alone all of his time, in jest gettin' an' education that I don't see ever done ennyone enny good."

"What about the thousand dollars?" questioned my mother, ignoring his protests.

"Taint no use, Phoebe. I can't consent, and I have given my word to Jed."

"Very well, then," replied my mother quietly. "Preston shall go to school, an' you shall get the use of your money. I am sorry you can't see the question in the same light that I do. You remember I had a small sum of money left me from my father's estate. This has been out at interest for twenty years. The amount was a small one, but though it

was not worth accepting, when you were disappointed because the larger sum was left to my brother, I was thankful for a small sum that I could call my own, and have used neither principal nor interest. The sum will more than answer Preston's needs, and I shall expend it for him freely. You may as freely use the sum now on hand for the other boys and we shall see which brings in the best results in the end."

To say that I was astonished at learning that my mother had so large a sum of money at interest, would be to simply convey the state of my father's feelings at the same time. He felt that he was beaten all around and could not say a word. It was easy to see that he begrudged even this sum to be paid for my schooling, and numerous hints were dropped to me about what a nice payment such a snug sum would make toward a good farm. While I disliked to take my mother's legacy to pay for my schooling, when I felt that I had earned a sum working for my father that honestly belonged to me, I saw that it would give her more pleasure for me to do so, and I thus accepted and was soon in the University, and hard at work.

The four years in school passed quickly for me. While the money my mother gave me was not sufficient to pay my expenses, it proved ample with what surpluses I could earn during the long summer vacations and at odd spells to pay my way and leave a goodly sum besides at the end of the third year; and during the vacation of the last year I succeeded in perfecting a machine that not only brought me enough to repay my mother in full and with compound interest, but also left me a large sum besides. I had been home once only during the four years, as I could ill afford the time. Caring to see my mother only, I had arranged each year to have her make a visit to her old eastern home, which brought her near the city where my vacations were passed. The first few years, these visits had done her much good, as could be seen in the improved condition of her health, but the last year she came to me I was not a little alarmed at her appearance. Instead of the bright-faced little woman I went to the train to meet, there alighted an old gentleman, stoop-shouldered and dejected, in whom I should with difficulty have recognized my father had he not been accompanied by my mother, whose appearance was no less dejected. One look into my old father's haggard face and all the ill-feeling I had harbored against him had vanished; but it was not until they were with me in my own pleasant home which I had purchased near the suburbs that I learned from him the cause of their sad looks and of my father's appearance with my mother. Then he told me the story:

"I didn't like to come to you, Preston, and burden you with my troubles, but mother insisted on it. When you left the old farm, my boy, I found the head had gone from the place. I didn't like to acknowledge it to mother, even, because I had always been overbearing and self-willed; but I soon found that I could not farm as well after your brains left the place. Though I had always thought that education was of no benefit to a farmer, I could not help admittin' that it did pay to keep informed through the papers of what was goin' on; for I had stopped the country paper you had always taken because I didn't think I had time to read, and soon got taken in by a lightnin'-rod swindle that cost me three hundred dollars, and this, too, a week after the three hundred dollars had been expended in that paper of yours I had stopped. Then we bought Deacon Asher's medder. We paid the thousand dollars of yours."

"Not mine, father," I smilingly interrupted. "Yes, my boy, it was yours, and you ought to have had it; but let me go on with my story. We paid that thousand dollars on the medder lot and I gave a mortgage for two thousand dollars to pay the balance, on the old place. Things since then haint gone right. I had the deed made out in the other boys' names, thinkin' to encourage them, but it was a mistake. Jed took to drinkin' an' sold the entire place and now, Preston, the old home has got to go to pay off the mortgage, and other debts the boys contracted, an' I signed for, an' your mother won't have a dollar for her old age."

"But, father, I have you left," said the faithful little woman. "You are like you were years ago, and that is better to me than money; but I can't bear the thought, Preston, that your father must begin hard work again at his time in life."

"Tut, tut, mother," replied my father, as he tried to wipe the tears from his old eyes. "Taint for myself I care, but I can't bear to see you left with-out nothin' when I'm gone. If I'd listened to you oftener, especially that time when you was talkin' to me so sensible by the milk house, things would have been different. That thousand dollars I wouldn't give to Preston has brought all of our bad luck. It will kill me to see the old place sold under the hammer, an' Preston my boy, I came on here to ask you to forgive me the wrongs I did you. I suppose you haint nothin' saved ahead, but I know you'll look out for nothin' better than the others, for they haint got nothin' an' mother would feel more like livin' on you, since she helped you, you know, in goin' to school, when I was so mean and wouldn't. If you hadn't fooled away all your time goin' to school, may be you'd have somethin' now to live on, instead of bearin' 'round. Whose place is this, ennyway, Pres?" he suddenly inquired, for the first time observing the rolling meadows and waving grain in the fields back of the large house.

"As I ignored the question, he perhaps thought I had not heard him, and continued:

"I vum, I believe I could live on such a farm as this, but taint for such as I am. Say, Pres, what kind of a man owns this farm, ennyway, so near

the city, yet right out in the country on the other side of the house?"

"Oh, he is a man about your size," I replied. "Is he—that is—did he—say, did he ever go to college?"

"I believe he did fool away some of his time at a University," I replied, smiling at the look that swept over his face, while the only remark to this he could make was his familiar, "I um."

In this one expression, all the convictions of years seemed swept away, but it needed one more test to banish them all. I had whispered something to my mother that had driven all care from her dear face, but I was not yet ready to divulge to my father what was said. Neither had laid away their wraps, but sat holding them in their hands as if expecting soon to leave. At last father said:

"Well, Pres, since you have stopped here till I've told our story, maybe we better be goin' up to your boardin' house. The family here don't seem to be comin' home, an' maybe you can run in agin if you were wantin' to see them. I'm 'fraid mother is pretty tired after her long ride on them tarmel cars, an' we better get on."

"Oh, no," I replied smiling. "The family are not away. The farmer is at home. Lay off your things and come out to supper."

"Why, what I don't understand," he replied, looking helplessly at mother; then seeing her smiling face, he was more astonished than ever, until, to ease his anxiety and bewilderment, I explained:

"This place, my dear father, belonged to me; but when I heard, through one of the neighbors, how things were going out at the old home, I had the deed changed and it is now made out to Mrs. Phoebe Astery. Thinking you would not like to live with mother if she owned all of the property in the family, I have also purchased the old home-farm, and here is the deed made out to Joseph Astery, so you can, in the future, live on just whichever place you please, only if you stay on this one, I may board with you for a few years, while I fool away some more time inventing machinery." His only answer was,—

"I um."

**Tapioea.**

Upon your pantry shelves a good supply  
Of tapioea keep unfailingly;  
For many dainties, wholesome, rich or rare,  
You from this starchy product may prepare.  
First, then, Ambrosia, food meet for the Gods—  
They ne'er partook of it, but "what's the odds?"  
One cup of tapioea soaked o'er night;  
Then when you're stirring with the morning light,  
Place it where it will slowly cook till clear—  
A double kettle is of value here.

And now one cup of sugar; and meantime  
Have one nice pineapple chopped very fine,  
On this the boiling tapioea pour,  
And stir together; 'twill need nothing more.  
Pour into moulds, which shall the shape preserve;  
When cold and firm with cream and sugar serve.  
This delicate and always welcome dish  
You may prepare with peaches if you wish;  
Or other fruit, soft, ripe, or even canned,  
Such as at any season may command.

If apples you would use, best, pare and core  
Enough to fill your baking dish—no more.  
The space of cores with sugar fill, and spice;  
A dash of lemon juice is very nice.  
Bake till the apples tender grow; then pour  
The cup of warm, soaked tapioea o'er,  
And bake till clear. Most surely you will deem  
This "about right," served warm with sweetened  
cream.

A little salt the tapioea'll need,  
As almost every pudding does indeed.

For tapioea cream, in water swell  
Four tablespoonfuls; only cover well;  
Then with a quart of milk you'll set it on,  
And gently cook till sure it is well done.  
Four eggs; the yolks with sugar you will beat—  
A cupful will not make the cream too sweet—  
Stir in with care and add a little salt;  
Vanilla flavor will not prove a fault;  
Lastly, the whites well beaten. Serve when cold,  
And how acceptably need not be told.

Or, these two recipes you may combine  
In apple pudding, if you so incline.  
Apples to fill your dish you'll peel and core,  
Filling with sugar, then bake as before.  
The tapioea you will soak and swell;  
Three tablepoons, or four, will do quite well.  
Mix with a custard made of milk, one quart,  
Three eggs; vanilla flavor or some sort;  
A cup of sugar. Over the apple pour;  
Bake till the custard is well set, no more.

A custard pudding baked is very nice  
With tapioea, or with this and rice.  
The first—proportions as for "cream" will do;  
Coconut added may be something new;  
Three tablepoonsfuls with your yolks you'll beat,  
And sugar; 'twill look "good enough to eat."  
The tapioea soaked, and as before  
In the milk scalded, you to this will pour;  
Lastly, the whites, that all may be well done,  
For frosting beat, and in the oven brown.

For invalids a jelly may be made,  
Quite palatable, too, so it is said.  
The tapioea you will cook till clear.  
As for Ambrosia, no fruit needed here.  
Except a lemon; juice and grated rind.  
A simple nourishment you'll surely find.

—Good Housekeeping.

**Minnie May's Dep't.**

**She Would Sweep Nothing Else.**

"How gracefully she sweeps the keys,"  
The caller to the mother said,  
As o'er the answering ivories  
The daughter's nimble fingers sped.  
"Ah, yes," the mother's voice replied,  
And tremors in her accents creep;  
Then to herself she sadly sighed:  
"The keys are all she cares to sweep."

**MY DEAR NIECES—**

It is the prevailing opinion that no woman can hammer a nail without hitting her thumb, but many a nail has been driven and no thumb hurt. Every girl should know how to use hammer and saw as well as boys, and a small box containing hammer, saw, chisel, screwdriver, tack hammer, pair of plyers, nails of various sizes, an assortment of screws, wire, and picture nails and tacks should be in the possession of every house-keeper. They should be kept sharp and in good order, and exclusively for indoor use, for if they are allowed to be taken to the barn they are never where they ought to be when needed. All small repairs can be done by a woman inside the house. How often we have wished for a box of just a certain size to grow mignonette, or plants for the window sill, and could not have it. The job not being a large one did not interest the mechanic enough to make him hurry with it. It does not require any particular muscular force nor ingenuity to saw and nail a box together, and the work is clean and interesting. When we want to cut a piece of wire our scissors are called into requisition, or twist at it until our thumb nails are broken and our patience out of joint. Picture frames can be neatly made by buying the mouldings and fitting the corners by a mitre joint and finishing with glass and back. Locks can be oiled and the screws tightened, a nail put where required in the pantry shelf that "wobbled" for so long, and all the domestic machinery kept in smooth running order by girls who can handle tools. And there is nothing unfeminine in it either, the frailest of girls hammer at brass and copper and make so many useless things too when they might do much that was of real use if they could use tools. Fret work is considered quite an art, but it is only carpenter work on a small scale. Who does not remember the discomforts and mortification caused by a door not opening smoothly over a carpet, which could be all set right in five minutes with a sharp saw. And many cherish unpleasant memories of a wounded knuckle caused by a window sash "striking," as it is called. How many odd jobs have to be done in glueing, too, and it is quite an art to glue neatly and well—so we must add a glue-pot to our collection. As we become more versed in the use of tools we will want sandpaper, paints, varnish and brushes, and instead of waiting for the mechanic, who often never comes, we can do them ourselves and at far less cost. It seems a simple thing to put a pane of glass in the window, but how often we have stood helplessly by to see our window blind drenched and carpet soaked, and to stop the damage had to resort to a bundle of rags until some one came who could do the job. Paints come prepared in all shades, and it only requires a little practice to lay them on smoothly, and it adds so much to the appearance of a room to see the paint work in good order, besides it saves labor, and should be

eagerly accepted by all if only for that; but neatness observed about our homes has a refining influence, and we should all take that pride in our home that makes it the dearest place on earth and do all we can to keep it so.

While the morning is still cool and dewy is the best time to air the house. Open wide all doors and windows until the sun begins to shine directly into them, then close the sash and draw down the curtains until the close of the day. You will find your room cool and sweet, and just the place to rest in after your work is finished.

MINNIE MAY.

N. B.—Minnie May offers a prize of \$2 for the best article on "Experience in Poultry Raising and the Results; Giving all Details of Profit and Loss." Communications to be in our office not later than the 22nd September. Also a prize of \$2 for the best list of "Easy and Useful Home-made Presents, Suitable for Xmas, and How to Make Them." All articles on this subject must be in by the 15th of October. Minnie May would be glad of a recitation for publication, if any of our readers have a particularly good one.

**Recipes.**

**CUCUMBER SALAD.**

Peel and slice thin four well-grown but unripe cucumbers; slice an equal number of well grown, ripe tomatoes, from which the skin has been removed, lay in alternate rows and pour over it the following mixture:—One tablespoonful of mustard rubbed into two of salad oil and a teaspoon of salt; thin it with vinegar and toss up the cucumbers and tomatoes until all are covered with it.

**CHOCOLATE ICING.**

Five tablepoons of sugar and half a cup of milk; boil five minutes, then stir in half a cake of chocolate, which has been grated and moistened with boiling water. Use while warm.

**BAKED-RICE WITH CHEESE.**

One pint of boiled rice, half a cup of grated cheese, in alternate layers in a buttered dish; spread crumbs of bread on top and bake twenty minutes in a quick oven. Serve very hot.

**RICE AND BERRY PUDDING.**

Soften cold boiled rice with milk and stir until all the lumps are dissolved; add three well beaten eggs, a teaspoon of butter, a small cup of sugar, and two cupsful of blackberries. Bake slowly for one hour in a buttered pudding dish.

**CREAM COOKIES.**

One cup of maple sugar, one cup of sour cream, one teaspoon of soda, a little nutmeg, one teaspoon of caraway, and flour to make a stiff batter; roll thin and round. Bake in a quick oven.

**CORN OMELETTE.**

Cut six ears of cold boiled corn from the cob; beat the whites and yolks of six eggs separately; butter a hot pan; stir whites and yolks lightly together, add a pinch of salt, one of black pepper; pour into the hot pan; sprinkle the corn on top when it sets; turn it half over and let it remain in the pan until wanted. Turn it out on a hot dish.

**BAKED POTATOES.**

Baked potatoes form an agreeable variety to our table and are simply and quickly prepared. Wash clean, dry and rub the skins with a small piece of dripping. Bake one hour in a hot oven.

**BAKED TOMATOES.**

Select them all of a size, put into a pan with a little water and a pat of butter, a little pepper and pinch of salt on each. When they look shrivelled they are done.

**Naming the Baby.**

Written for the Illustrated Home Journal  
BY EUGENE SECOR.

'Tis a serious and solemn thing, it is said,  
But my wife and I got along very well  
Till a little boy baby from Paradise fell.  
Some wiseacres sagely venture to say  
That the young folks will open their eyes some day.

Perhaps it may be a matter of weight,  
When marriageable people rush to their fate,  
But my wife and I got along very well  
Till a little boy baby from Paradise fell.  
Then trouble began—for what should we name  
A cherub like ours—the first one that came  
To cheer our abode from the day of his birth,  
And bless other folks to the ends of the earth—  
For certainly no such boy before  
Was sent to this world, and likely no more  
Ever would be, that so embodied all hope—  
Hence a name must be found to give the bud scope.

A plain common one such as Henry or John  
Would be good enough if he had to plod on  
In the same old style as his prosy grandsires,  
Who lived with few hopes and fewer desires,  
But we, in this age of progress and light,  
Need some incentive that's always in sight,  
Like the name of some general famous in war,  
Some poet whose verses are sung near and far,  
Or, may be, the name of some statesman would do  
For our infant genius, whose exploits we knew  
Would add to the splendor of whose ever fame  
Was linked to his future by even a name.

So after much worry and much prayerful thought,  
And all of our thinking developed but naught,  
My wife and I hit upon this clever scheme  
To get the advice of our friends who deem  
It their duty, yes, their neighborly right  
To help us out of our difficult plight.

Our cards were sent out, inviting to tea  
All the cousins and aunts this side of the sea.  
'Twas agreed by us first that each willing guest  
Should add some names to our stock by request.

One very religious old aunty—dear soul—  
Wrote Moses and Joshua, Peter and Paul,  
Isaiah, and Job, Jeremiah and Gad,  
Abednego, Cosh, Ben-Hur and Arphad—  
Or, if we were partial to good double names,  
Suggested Luke Liakim and Jedediah James.

Another nice aunty, whose husband was Squire  
In the town where they lived, seemed never to tire  
Of building political air castles, in which  
Some day should shine, both honored and rich.  
Of course she could think of nothing but fame,  
And wanted the boy to carry the name  
Of Gladstone or Blaine, Abe Lincoln or Clay,  
B. Harrison, Reed, Von Bismark or Quay.

A maiden with hope, tho' past her sweet prime—  
Like a faded rose—yet dreamed of the time  
When a Prince all booted and spurred should ride,  
And carry her off to his castle a bride—  
She swelled our long list by fully a score.  
Orlando, Cuthbert, Rupert, Theodore,  
Boniface, Aubrey, Donald, Ivanhoe,  
Cyril, Bartholoh, Stuart, Horatio,  
Roderic, Lubin, Bardolph and Roy,  
Are some of the names she proposed for that boy.

A woman whose husband belonged to the "Post,"  
Was an "ex-vice" something, of which she did boast,  
She marshaled the hosts of sixty-one,  
Not in the order their battles were won,  
But mixed them up "a la pot pourri."  
And fired the whole mess at my wife and me.  
McPherson and Garfield, Grant, Hooker and Meade,  
Franz Sidel, Tecumseh and Hancock to lead,  
With a host of others who wore the blue—  
Enough to name a regiment or two.

'Twould fail me to give all the names handed in:  
(If some are omitted I'm sure its no sin.)  
Suffice it to say, the whole universe  
Was ransacked for words both ornate and terse.  
Of poets, and authors, and painters, four-score—  
Of millionaires ten, of editors four,  
Of doctors, and preachers, and lawyers—in brief  
A list long enough to stagger belief.

When all were gone home, and my wife and I  
Had vainly attempted, with many a sigh,  
To choose from the list a suitable name,  
We suddenly thought of a pious old dame  
Who wanted a scriptural one, she said,  
That blessings might rest on our conjugal head:  
So we then and there, in utter despair,  
Said "Alpha Omega's the name he shall bear."

"Never look at your boy when he is speaking,"  
writes a father. "It embarrasses him when he  
is explaining how he happened to be in school  
and out playing ball at the same time."

Said an exasperated father at dinner: "You  
children turn up your noses at everything on the  
table. When I was a boy I was glad to  
get enough dry bread to eat." "I say, papa,  
you are having a much better time of it now you  
are living with us, ain't you?" remarked little  
Tommy.

**Long, Silk Purse.**

From time immemorial a silken purse has been  
considered the acme of elegance as a receptacle  
for "filthy lucre." Every lady who values sim-  
plicity and beauty must prefer them to the bung-  
ling combination of plush and alligator (?) skin  
with which the shops are flooded.

A very pretty and easily made, long, silk purse  
requires one-half ounce of No. 300 Florence knit-  
ting silk.

On No. 18 needles cast 59 stitches and knit  
across plain. 2nd row—purl 2 together, throw  
thread over; repeat, until only one stitch re-  
mains. Knit 1 third row and every succeeding  
row until the 65th is reached, the same as the  
2nd.

Then follow with 83 rows of garter stitch, after  
which knit 64 rows of the open work, as at first;  
knit one row plain and cast off. Sew up the  
sides of the web thus obtained, leaving an open-  
ing of two-and-a-half inches, and finish with steel  
trimmings.

Great care should be taken to keep up the  
number of stitches. At the beginning of every  
row there should be 59 on the needle. I have  
never succeeded in picking up a stitch dropped,  
though I have contrived to make one without  
spoiling the work, rather than ravel it out.

The cost of this purse need not exceed sixty  
cents, but if more elaborate trimmings are de-  
sired the expense will be increased.

**How to Prepare Sheep-Skin Mats.**

For the benefit of those subscribers who have  
requested directions for making sheep-skin mats,  
we print the following taken from *Strawbridge  
and Clothier's Monthly*:

Wash the skin in warm water, remove all the  
fleshy matter and clean the wool thoroughly in  
soft soap and water. Having thus freed it of all  
fatty matter, apply to the flesh-side the follow-  
ing mixture: Take half a pound each of fine salt  
and powdered alum, and half an ounce of borax.  
Dissolve these in a quart of hot water, and, after  
cooling the mixture to a degree that the hand  
may be held in it, add rye meal to make it into  
a paste. After spreading it on the fleshy side of  
the pelt—and the quantity named is what will  
be needed for one pelt—fold the pelt lengthwise  
and let it remain in an airy place for two weeks  
after which remove the paste, warm and dry.  
When nearly dry, scrape with a knife, which  
should be crescent shaped; and the softness of  
the pelt will depend very much upon the amount  
of working that is bestowed upon it. If the  
skin is to be used for a mat, then with strong  
lather made with hot water—but used when  
cold—wash the fresh skin, being careful to get  
all the dirt from the wool. It is better to plunge  
the skin into the lather, and then wash clean in  
cold water. Now, dissolve a pound each of salt and  
alum in two gallons of hot water. Put this into  
some sort of a tub in which the skin can be  
placed, and have the mixture cover it. After  
twelve hours soaking, take it out, and hang it  
upon a pole to drain. When it has been well  
drained, stretch it upon a board to dry, and  
stretch it several times during the process of dry-  
ing. Before it is quite dry, sprinkle on the flesh  
side one ounce each of powdered alum and salt-  
petre, rubbed in well. If the wool is then found  
to be firm on the skin, it can be folded up and  
let remain two or three days, turning the skin  
over daily. Then scrape the flesh side with a  
blunt knife, and rub with pumice stone.

To color the mat, use aniline of any shade de-  
sired. Dissolve one pound of aniline in two  
gallons of water; strain before using; then float  
the skins in a dye-box, wool down. See that  
that they lie flat, and let them remain till the color  
desired is reached. Then take them out  
and run them through clear cold water, and  
hang up in a hot room to dry. For plain white,  
wash the skins well, after tanning. If not white  
enough, hang up in a small room and bleach  
with powdered sulphur. Set in a pail in the  
centre of the room, the burning sulphur. Do  
not let the sulphur fumes escape, and have the  
room air-tight.

**Knitted Knee Caps, for Rheumatic  
Knees.**

Two skeins Saxony or Shetland, or one skein  
Prvidence yarn; steel needles No. 12. Cast on  
100 stitches on 4 needles and knit round in ribs  
of two plain, two purl, for depth of 4½ inches.  
Then knit plain to within 10 stitches of the  
other end; this will leave 20 stitches, which can  
be slipped on another needle till required. The  
other 80 stitches are to be knitted plain, back-  
ward and forward, like the heel of a stocking,  
for the knee piece. The first stitch of every row  
is to be slipped off without knitting, but kept  
rather tight, as they have to be picked up after-  
ward, and if let loose are apt to make holes.  
From the 10th to the 70th row decrease a stitch  
at beginning of each by knitting second and  
third stitches together, so that at the conclusion  
20 stitches only will remain. Then unite again  
in a round by picking up 30 stitches from each  
side, which with the other 40 will again make  
the original 100, which must be knit in ribs for  
4½ inches. Then bind off loosely. If wished  
smaller size use No. 13 needles, or if larger,  
Germantown and larger needles may be used.  
M. E. S.

**Old and Young Should not Sleep  
Together.**

A prominent medical writer says that no in-  
telligent person who loves his children will allow  
them to sleep with persons greatly older than  
themselves. The nervous vitality of a child  
should not be absorbed by any diseased or aged  
relative or friend. Children, compared with  
adults, are electrically in a positive condition.  
The rapid changes which are going on in their  
little bodies abundantly generate and as extensiv-  
ely work up vital nervo-electric fluids. But when,  
by contact for long nights with elder and  
negative persons, the vitalizing electricity of  
their tender organizations is absorbed, they soon  
pine, grow pale, languid and dull, while their  
bed companions feel a corresponding invigoration.  
It is undeniable that healthful influences are  
lost, and to a fatal extent sometimes, by this ill-  
advised custom. A woman was prostrated with  
incurable consumption. Her infant occupied the  
same bed with her almost constantly day and  
night. The mother lingered for months on the  
verge of the grave, her demise being hourly  
expected. Still she lingered on, daily disprov-  
ing the predictions of her medical attendants.  
The child, meanwhile, pined without any  
apparent disease. Its once fat little cheeks fell  
away with singular rapidity till every bone in  
its face was visible. Finally it had imparted to  
the mother its last spark of vitality and simul-  
taneously both died.

MRS. PILGRIM: Now these boys air sister's.  
Census-taker: No; you mean brothers. Mrs.  
Pilgrim: No, sir; I mean jes' what I say. They  
air my sister's. She lives nex' door, in the red  
house.



**Dawning Genius.**

It was a mother's kiss of approbation and encouragement which made Benjamin West the artist he was, when with childish hand, but eye of genius, he drew the sleeping baby, in which her fond eye noted a resemblance. Had that been a smile of ridicule or a hastily spoken word to say he might have been better employed, who can tell on so sensitive a plant as a child's unfolding genius what a blighting effect it would have had.

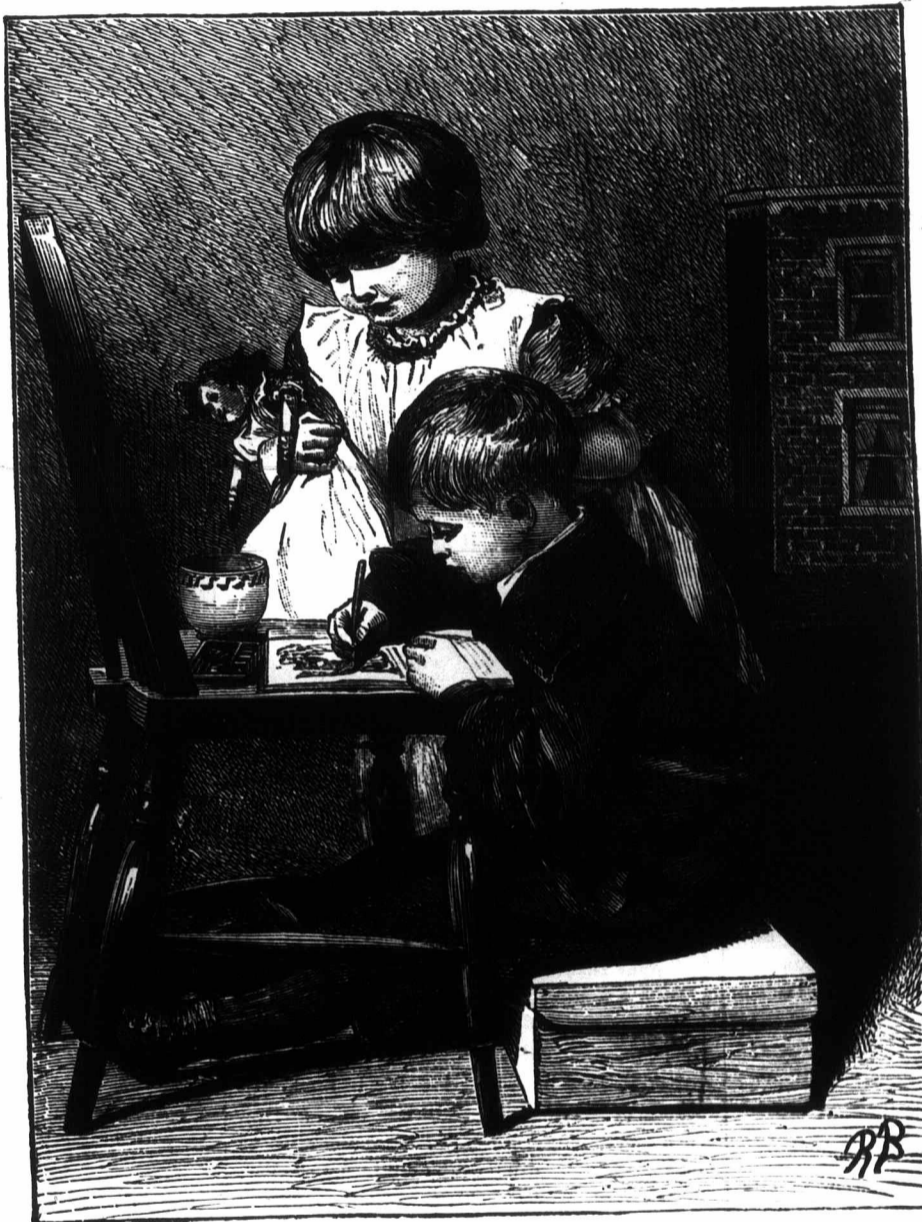
In our illustration another young artist is at work. See the studious and earnest face as he bends over his slate, and the picture grows under his hand. No half-hearted work there; his soul is in it and all his faculties are engaged. The words of a Great Teacher spoken eighteen hundred years ago come to mind, and we think there are many things we older people have to learn, in which we would do well to imitate and receive, even "as a little child."

What else do we note in our illustration? On a wooden chair the boy has his work. No home of wealth, with easels, pallets or flowing fountains, no cradle of luxury does our youthful genius claim. Let elegantly carved rooms and gorgeous upholstery continue to surround those whose brains the world's work may do without, but may our men of genius continue to come from the little cot and the rude hamlet, carrying with them wealth of mind and health of body. Let them come from the green fields and the blue skies, redolent with sunshine and singing birds and beauty, and with "the greatest thing in the world"—as Professor Drummond terms it—love, love to man and love to God.

And when the world wants wisdom and clear minds and heads, yes, and hearts, in its hours of trouble and difficulty, they will turn aside to meet the men they require, without asking if their coat is worn or if they know certain rules of etiquette. It will take them as they are and pass to them their offices of trust.

Let us look again at our illustration and see the power one earnest worker possesses. The little sister, wondering at her playmate's silence, comes to see, and his enthusiasm holds her spell-bound and her dolly lies forgotten on her arm. What does she learn from the picture as she stands there, her face lit up with interest, and watches the strokes one by one as they fill

in and make up the picture? More than one lesson is there taught; a deeper love and respect for the young artist, a lesson in perseverance and an object, an object to be accomplished before we lay our work down. What life lessons these! The man that is to be shines through the boy's eyes and face; the little child will yet be the confidential sister, and with a mother's love and father's pride, what may we not predict for the persevering, studious, loving and loved son and brother; what may we not predict when the development of all these God-given powers is ac-



DAWNING GENIUS.

complished, when  
 "The shadows are lifted,  
 When the sands of life are all sifted,  
 And the well-fought fight is won."  
 KATE ROBERTSON, Strabane.

How is it possible to proceed in two opposite directions at the same time? By walking from the forward to the aft of a vessel while sailing. What is the centre of gravity? The letter V.

At Sir Ralph's Evening Party—Captain F. (brought by a friend)—"Old Stick-in-the-Mud does the thing well, doesn't he? The supper alone must have cost him a guinea a head." Lady—"Twenty-two and sixpence, sir. I can give you the exact figures." Captain F.—"Why, how, what do you mean?" Lady—"Merely that I am old Stick-in-the-Mud's daughter."

**Fashion Notes.**

An effort is being made to renew the popularity of the long skirt hems, but the untidiness and awkwardness of over-long skirts tempt us to wonder whether any sensible woman would ever adopt them. Another attempt is that of reviving the all-round hoops, but let us hope without success.

The inclination is to "mannish" styles, but the little jacket is jaunty, and the linen collar and shirt looks like a man's; the little lady who wears it looks very pretty and neat. If there are

little side pockets we need not put our hands into them, and if we do wear a sailor hat it must be worn on top of the head, not a particle to one side. Fashionable travellers are wearing black silk underwear throughout, not excepting night robes; it is claimed they do not soil so easily. It is yet too early to tell what will be worn for autumn, as only a few new styles are shown, but our summer usually lingers so long there is not much time to get out any distinct mode for autumn, so a little brightening of summer bonnets, a little heavier mantle or a darker dress are all the changes that the majority comply with. What shall I buy for a nice black woollen dress, and how shall I make it at home? are asked constantly by girls who have just so much to spend upon a dress, and black being the most serviceable it should be of good material, Henrietta cord or Russian cashmere being the best. Trim the basque with silk cord passementarie in vandyke designs down the bust, around the cuffs and down one side of the skirt. Another plan would be to have full sleeves of silk or velvet

with a panel of velvet and a border six inches deep around the front hem. You should make it as near the style as possible, a princess back and slightly draped front and high standing collar; the sleeves stand up high at the top, and for turning have one vandyke only pointing upwards for a cuff.

The birds that were used upon summer hats bid fair to reign undisputed, and despite the efforts to renounce caprice of fashion for sentiment the feathered beauties have returned in many varieties.

Shoulder capes in all materials will be worn for autumn; of cloth pinched at the edges, of heavy silk or plush lined and trimmed with fur, or of the material of the dress finished a ruching or fur.

**Early Hours of Birds.**

The thrush is audible about 4.50 in the morning. The quail's whistling is heard about 3 a. m. At four o'clock the blackbird makes the woods resound with his melody.

**Hair Pin Receiver.**

A small basket, which may be purchased for a few pennies, is gilded or bronzed to form one of the daintiest of hair pin receivers. It is lightly filled with hair, and covered with a pretty top crotchetted or knitted in pretty colored wool. Stripes of ribbon are made into loops and fall over the edge of the basket, finishing each one with a disc or crescent. Ribbons started from opposite sides serve to suspend it.

**Practical Hints.**

To remove claret stains from table linen, rub on salt as soon as possible, and wash in the usual way. If not entirely removed apply lemon juice and dry in the sun.

What is more disagreeable to use than a rusty flat-iron? Rub them with fine emery dust and sweet oil, or wood ashes.

Save stale pieces of bread, and when an easy day comes dry them in an open oven and roll them fine with a rolling-pin; they are always ready for rolling cutlets or chops in, preparing oysters or croquettes, etc.

Go to bed at night to sleep and not to think over the troubles of the day nor the trials of tomorrow.

When one is fatigued tea is an effective restorative. It forms an agreeable warm drink, which is not heating to the blood nor oppressive to the stomach, particularly if taken slowly when one is sitting quietly. Large quantities induce nervous disorders.

"Here is a paradox with which to grapple, 'Twas the first pair that tasted the first apple."

When furnishing a house do not neglect to purchase pictures; they recall pleasant scenes and have a freshening effect; but do not buy any but good ones.

The importance of letting the sunlight into all parts of our dwellings cannot be too highly estimated. Good health is dependent upon sunlight and pure air. Sunlight should never be excluded except it is too bright for the eyes.

When angels are entertained unawares the entertainment is nothing to brag of. It does not do to aim too high. If you make the zenith your mark the arrows will fall back on your own head.

A paragraph may have as much force as a treatise. If a man can be killed with a darning needle why hire trained elephants to roll over him?

"Style is the dress of thoughts," said Chesterfield. He would stare if he could see the dress of thoughts now-a-days.

Those who seek for perpetual novelty in ideas will soon have none worth keeping. Only as the old ones, that have proved their worth by long experience, are revered and cherished can new ones safely make their way.

The dog days are now over with their long, lazy afternoons, and the feminine heart feels an inclination to begin the fashioning of those dainty trifles that so delight the soul of the artistic needle woman. With the aid of her bag of odds and ends, basket of silk flosses and sharp scissors she will soon show a goodly array of pretty and useful trifles.

**Uncle Tom's Department.****Life's Epitome.**

A burst of light and story,  
Of hopes and dreams, and sometimes glory—  
Day's begun!  
A little praise, a little blame,  
A little fleeting breath of fame,  
A little sitting in the sun, a little sigh and—  
Day is done.

**MY DEAR NIECES AND NEPHEWS:—**

So your vacation is over, and like a grand army you have marched toward the school-room armed with pencils, slates, books, grammars, geographies and many more, to storm the fortress of knowledge and carry away of her treasures things new and old. To call at will from by-gone ages the great and wise to show you the path which leads to wisdom, is your pleasure.

As does a poet, with whose writings you are already familiar, Uncle Tom would say:—

"Knowledge comes but wisdom lingers,  
And I linger on the shore,  
And the individual withers  
And the man is more and more."

But my little nieces, who timidly clung so closely, as for the first time they entered the school-room, cannot understand that yet. Full of new companions and new surroundings this school life seems like a busy workshop. Not so far astray, little one; there little minds are to be trained and little lives moulded. To the older school girl, with neat apron and collar, earnest eyes and studious face, it has a meaning, though; as she, the teacher's help, the mother's pride,

"Peers into the future far as human eye can see," visions of the future come before her, and with patient endeavor the goal will yet be won. Before leaving school let me say a word for the teacher. One celebrated divine, whose name you would all recognize if I should mention it, has written of his feelings when, as a timid child, he first entered a school-room and was there met by the pretty young teacher, scarce eighteen, who took him by the hand so kindly and did so much to smooth the rough pathway of early life. Some of my nephews, I see, are drawing comparisons, and are thinking how only last night they were kept in and punished. You know you deserved it; and this brings me to a question, why will such nice boys, whom Uncle Tom loves so well and finds so pleasant, why will they, once in awhile, indulge in fun at the expense of making somebody else suffer? How much more enjoyable the fun when there are no bitter dregs of selfishness and unkindness below, and no stings are left behind.

Another harvest is added to the past, and another summer is ended. The heavy sheaves are pitched and the peas are pulled and the threshing is over, and fall ploughing and gathering of roots and fruits remain to be done, and the fall fairs are coming on, and the long evenings and the pleasant winter hours. O, my nieces and nephews—young men and women they call you now, but Uncle Tom looks through privileged spectacles—what are you going to do, how improve these days which come not back again, but once gone are gone forever? Won't you use some of your summer earnings to buy books to improve your minds as well as spend on that which gives you no return? You can have the best of good company this winter if you choose—George Eliot, Dickens, Thackeray, Wordsworth, Bryant and a host of others. You grow like the company you keep, then choose the

best. Your literary, debating, temperance or endeavor society will be raised in tone by your researches, and others too may behold with you these hidden beauties and treasures. As in a dream Uncle Tom has been looking upon you and has seen bright eyes grow brighter, flush-mantled cheeks, as stalwart nephews, manly and true, came by, and a minor cherd of music, said or sung:—

"If heaven a draught of heavenly pleasure spare,  
One cordial in this melancholy vale,  
'Tis when a youthful, loving, modest pair,  
In other's arms breathe out the tender tale,  
Beneath the milk-white thorn that scents the  
evening gale."

There are other pictures too of pained and troubled faces, and tears and burdened hearts and heavy, and cutting words and writhing anguish and jealousies which make hearts bleed; whence come they into all society, to mar and sting when life is so short and farewells soon must follow?

Be true friends, my nieces and nephews, let not the tempter rule you, be open and candid that your lives, pure as the brooks, may reflect the heavens above you and the God you worship. Do be friendly and lovely and of good report, and say and do only noble things. Miss Muloch wrote of Marston, the blind poet:—

"One day,  
Philip, my king,  
Thou, too, must tread, as we tread, a way  
Thorny and cruel and cold and gray.  
Rebels within thee and foes without  
Will snatch at the crown. But march on  
glorious  
Martyr, yet monarch, till angels shout,  
As thou still 'st at the feet of God victorious,  
Philip, the king."

And so to you says

UNCLE TOM

**The Dessert.**

He—"Can you keep a secret, Milly?" She—"Why, have you one you can't keep?"

"What are you doing now, Gus?" said one young man about town to another. "O, I write for a living." "On the daily press?" "No; I write to father about twice a month for a remittance."

Johnny—"I wonder why I can't make my kite fly?" Elder Sister—"Perhaps the caudal appendage is disproportionate to the superficial area." "I don't think that's it. I believe there isn't weight enough on the tail."

Mrs. Wickwire—"If woman was given the credit she deserves, I don't think man would be quite so prominent in the world's history." Mr. Wickwire—"I guess you are right, if she could get all the credit she wanted, he'd be in the poor-house."

Customer—"You sell cracked eggs at half-price, do you not?" Clerk—"Yes'm, we always make a fifty per cent reduction on cracked goods. Anything else to-day?" Customer—"Yes, you may give me a dollar's worth of cracked wheat and here's your fifty cents."

"Is marriage a failure?" asked De Trompy of a former flame, who had been a party to a May and December marriage. "No," she replied with a glance toward her husband in the next room. "Not a failure. Only a temporary embarrassment."

**We want Good, Live AGENTS to Canvass for the "Farmer's Advocate" in every locality in the Dominion and United States. Sample copies and subscription blanks free to canvassers who mean business.**

**A Comparison.**

I'd rather lay out here among the trees,  
With the singing birds and the hum'ld bees,  
A-knowing that I can do as I please,  
Than to live what folks call a life of ease  
Up thar in the city.

Fer I really don't 'xactly understan'  
Where the comfort is fer any man  
In walkin' hot bricks an' usin' a fan,  
An' enjoyin' himself as he says he can,  
Up thar in the city.

It's kinder lonesome, mebbe you'll say,  
A-livin' out here day after day  
In this kinder easy, careless way;  
But an hour out here is better'n a day  
Up thar in the city.

As fer that, just look at the flowers aroun',  
A-peepin' their heads up all over the groun',  
An' the fruit a-bendin' the trees 'way down,  
You don't find such things as these in town,  
Or, ruther, in the city.

As I said afore, such things as these,  
The flowers, the birds and the bum'ld bees,  
An' a-livin' out here among the trees,  
Where you can take your ease and do as you  
please,  
Makes it better'n the city.

Now all the talk don't 'mount to snuff  
'Bout this kinder life a-bein' rough,  
An' I'm sure it's plenty good enough,  
An' 'tween you an' me 'tain't half as rough  
As livin' in the city.  
JAMES WHITCOMB RILEY.

**English Surnames.**

The pronunciation of English surnames is very arbitrary and capricious. Here are a few specimens. After each name, the received pronunciation follows: Abergavenny, Abergenny; Colquhoun, Cahoon; Beauchamp, Beecham; Cholmondely, Chumley; Wemyss, Weems; St. John, Sinjin; Fenwick, Fennick; Milne, Miln; Bethune, Beeton; Ruthven, Riven; St. Clark, Sinclair; Gower, Gore; and De Beauvoir, De Beever!

**Mistakes.**

It is a mistake to labor when you are not in a fit condition to do so; to think that the more a person eats the healthier and stronger he will become; to go to bed at midnight and rise at daybreak, and imagine that every hour taken from sleep is an hour gained; to imagine that, if a little work or exercise is good, a violent or prolonged exercise is better; to conclude that the smallest room in the house is large enough to sleep in; to eat as if you had only a minute to finish the meal in, or to eat without an appetite, or to continue after it has been satisfied, merely to please the taste; to believe that children can do as much work as grown people, and that the more hours they study the more they learn; to imagine that whatever remedy causes one to feel immediately better (as alcoholic stimulants) is good for the system, without regard to the after effects; to take off proper clothing out of season because you have become heated; to sleep exposed to a direct draft; to think any nostrum or patent medicine is a specific for all diseases.

Wings: Did you find, on your trip to Europe, that all this talk about having to tip the stewards on board ship for everything they do is true? Springley: Oh, I didn't mind the tipping of the stewards. It was the tipping of the ship that annoyed me.

The pastor of a small German town is extremely pleased at having one of his parishioners tell him that he has a nice little roasting pig which he is going to give him. After some time, the pig not making its appearance, he asks one day whether the good man has not forgotten it. "Oh, no," he said very frankly. "I did not forget at all; the pig got well." *Fliegende Blatter.*

**Puzzles.**

1-SEPTEMBER, 1890.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

ACROSS.—1. Rubbish.  
2. Chafy.  
3. A sort of rash.  
4. More eminent.  
5. Ontario (A B B R).

DOWN.—1. A ship (M Y T H).  
2. The fruit of a certain tree.  
3. To surround.  
4. An open surface.  
5. To peep.  
6. A small island.  
7. To cauterize.

FAIR BROTHER.

**2-CHARADE.**

Fair Brother, you again have erred  
About that famed physician.  
He asked me not what you aver,  
Such is not his ambition;  
For long ago a maiden fair  
He met down by the brook,  
And losing his ALL, this maiden  
For his "Advocate" first took.  
A noble LAST doth he pursue,  
Success to him I say;  
My gratitude to him I owe  
So here the debt I pay.  
ADA ARMAND.

**3-ANAGRAM.**

While boating on the river, (my comrades gay,  
and I,  
The boat capsized, we tumbled out, and I in fear  
did cry:  
"O SAM, WHO SINK the third time will rise ah! never  
more."  
But we all got safely in again and rowed away to  
shore.  
ADA ARMAND.

**4-ILLUSTRATED REBUS.**



**5-ANAGRAM.**

In the sultry days of summer  
When the "Ther." shows ninety-three,  
A dish of good PURE ICE cream  
Goes well for you or me.  
ADA ARMAND.

**6-SQUARE WORD.**

My first is virtuous "hold it fast."  
Now for my second "take the last."  
My third is "to refund" to them,  
My next is "a very precious gem";  
My fifth and last "a stratum" is.  
Now you may go about your biz.  
SNOW BALL.

**7-CHARADE.**

I fell in love with a pretty girl,  
Her name I will not tell;  
She jilted me, and now, alas!  
I'm on my way to — well  
I hope to find some other girl,  
Whose heart is true as life;  
And when I do, I'll try to love  
And win her FIRST my wife.

My first love I cannot forget.  
COMPLETE her, yes I can;  
I know its one of Cupids Tricks,  
She loves some other man.  
Oh! dear, Oh! dear, it breaks my heart  
To think that she, Oh! my,  
Would LAST her heart and hand to one  
Who loves her less than I.  
FAIR BROTHER.

**8-CHARADE.**

To picnics I would like to go,  
"On an average three a week";  
But I'm afraid that if I did,  
It would my CONSCIENCE break.

For when there's any work to do,  
And there is plenty of it now;  
'Tis wise, I think, to do that first,  
Though it behind the plough.

This FIRST, I'm LAST, doth suit you well,  
Although picnics I much enjoy;  
But work before WHOLE is a rule,  
They taught me when a boy.  
FAIR BROTHER.

**9-CHARADE.**

When I first went to school, as a rum little kid  
(Said I to myself, said I)  
I will certainly do everything I'm bid  
(Said I to myself, said I)  
I will never become a disgrace to the school,  
Or get into hot water for breaking a rule,  
Though I lay on a Last and see others a playing  
the fool  
(Said I to myself, said I)  
And now, dear cousins, to you all I would sing  
(I sing to you all, sing I)  
If you wish to Prime all and live like a king.  
(Sing I to you all, sing I)  
Pray cherish of Total the tenderest shots,  
Love Latin declension and worship Greek roots,  
With formula fill from your heads to your boots  
(Sing I to you all, sing I).  
HENRY REEVE.

**10-SOMETHING VERY BAD.**

My first is something very, very, very, very, very  
bad;  
Behead and leave something very, very, very, very  
bad.  
Transpose and make something very, very, very  
bad;  
Behead and transpose and make something very,  
very bad;  
Behead and curtail and leave something very bad.  
MATTIE WOODWORTH.

**Answers to August Puzzles.**

- 1. PALADIN
- 2. Average.
- 3. Catalogues.
- 4. Cannot.
- 5. Muffin.
- 6. Toronto Carnival.
- 7. Conscience.
- 8. Be slow of giving advice, ready to do a service.
- 9. Forward.
- 10. After T.

**Names of those who have Sent Correct Answers to August Puzzles.**

Henry Wilson, J. J. Devitt, Dorothy Fox, A. Howkins, Clara Rillance, L. A. Nicholson, Victoria Alberta, McCallum, Ed. A. Fair Brother, Mattie Woodworth, Mary E. Woodworth, Bertie McCallum, A. R. Boss, Morley T. Ross, Drusilla A. Fair Brother, Henry Reeve, Elinor Moore, Lewis Montgomery, A. G. Carrie, G. H. Greer, G. Allan, Mary Elliott, Bessie Strangé.

Farmer's daughter. — "I suppose you want father to take you in for the winter." Tramp. — "No, Miss; I only ask you to sew a shirt on this lonesome button."

**NEW ADVERTISEMENTS.**

All Advertisements, to insure insertion, must be in this office by the twentieth of each month.

**SPECIAL NOTICE.**

THE FARMER'S ADVOCATE refuses hundreds of dollars offered for advertisements suspected of being of a swindling character. Nevertheless, we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can, in the nature of things, be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery.

Advertisements unaccompanied by specific instructions inserted until ordered out, and charged at regular rates.

The FARMER'S ADVOCATE is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for an advertising circular and an estimate.

**PLAYS** Dialogues, Tableaux, Speakers for School, Club & Parlor. Post out. Catalogue free. T. S. DUNSON, Chicago, Ill.

**TREES FOR FALL PLANTING.**

The largest and most complete stock in the U. S. of Fruit and Ornamental Trees, Shrubs, Prunies, Roses, Hardy Plants, Grape Vines, Small Fruits, &c. Illustrated and descriptive priced Catalogue; also wholesale price list **ELLWANGER & BARRY**, for the trade FREE. ROCHESTER, N. Y. MT. HOPE NURSERIES. (Mention this paper.) 50th Year. 257-b O.M.

**\$30.00 FOR ONE OF THE FAMOUS CHRISTY INCUBATORS**

For 100 eggs. Cost \$40 in England four years ago. In perfect order. Apply to **BOX 7, MELBOURNE, P. Q.** 257 a-O

**Leaving the Farm.**

The undersigned will sell by auction, on Tuesday, October 14, all his Shorthorns, Shropshires, Berkshires, Horses, Fodder, Implements, Growing Grain, Etc. Catalogues on application as soon as ready.  
297-a-O GEO. BALLACHEY, Brantford, Ont.

**IMPORTANT AUCTION SALE**

**DISPERSION OF MOULTONDALE HERD.**

**PURE BRED—**  
Shorthorns, Holsteins, Clydesdales, Shropshire Sheep, Berkshire and Suffolk Pigs.

The undersigned intends renting or selling his stock farm on account of other business, and will sell the above without reserve, on  
**Wednesday, 22nd October next.**  
T. J. RAMSEY, Dunville, Ont., Co. Haldimand.  
Catalogues after 15th Sept. 297-b-OM

**EXTENSIVE AUCTION SALE**

**PEDIGREED SHORTHORN CATTLE**

And High-Bred Grades,  
Pure-bred Lincoln Sheep

WM. WALKER will sell at his farm, one mile north of Ilderton, on the L. H. and B. R.R., on **THURSDAY, OCT. 16th, 1890**, his herd and flock comprising 30 head of Pedigreed Shorthorns and high-bred grades, 65 head of pure-bred Lincoln Sheep, consisting of Rams and Breeding Ewes and Lambs of both sex. This celebrated flock of Lincoln Sheep has won more prizes and medals than any flock in Canada, and will be sold without reserve. Sale to commence at one o'clock p.m.  
WM. WALKER, C. WALKER,  
297-a-O Proprietor. Auctioneer

**-DISPERSION SALE-**

**SPRINGDALE HERD**

**Hereford Cattle, Horses, Implements, &c.,**

on **Wednesday, Oct. 15th, 1890.**  
Being about to retire from farming, and having leased my farm, I will sell by public auction, at Springdale Farm, 2 miles from Oshawa, my entire herd of valuable Hereford Cattle, comprising 40 Cows and Heifers, and 13 Bulls and Bull Calves, all registered. Parties will be met at Station, on evening of 14th and morning of 15th. Terms of sale, 12 months' credit, on approved notes. For further particulars and catalogues, address  
297-a-OM R. J. MACKIE, Oshawa, Ont.

**GREAT PUBLIC SALE**

**PURE-BRED STOCK**

Exhibition Grounds, Guelph, Ont., Can.,  
On **Wednesday & Thursday, Oct. 8 & 9, '90.**

MR. FREDERICK WM. STONE, of Guelph, one of the oldest importers and stock breeders in America, having decided, owing to advancing years, to reduce his farming operations, will offer for sale, by Public Auction, a large part of the celebrated **Moreton Lodge Herds and Flocks**, consisting of Pure-bred Hereford and Shorthorn Cattle, 150 to 200 head; also about 200 head of Cotswold and Southdown Sheep and Berkshire Pigs.  
Sale at 12 o'clock (noon) Sharp, Oct. 8th  
Catalogues, giving particulars of breeding, order of sale, terms, etc., on application to—  
**FRED. WM. STONE,**  
42 Gordon St., Guelph, Can.

N.B.—Two Stock and Grain Farms for Sale, of 200 and 250 acres each. The Ontario Agricultural College, Guelph, will hold their Annual Sale of Stock, Feed Grain, etc., on 7th of October, 1890.  
297-a-OM

**HOME STUDY**—Thorough and practical instruction given by MAIL in Book-keeping, Business Forms, Arithmetic, Penmanship, Shorthand, etc. Low rates. Distance no objection. Circulars free. **BRYANT & STRATTON'S COLLEGE**, 419 Main-St., Buffalo, N. Y. 287-y

**CENTRAL CANADA EXHIBITION, OTTAWA, September 22nd to 27th, 1889.**

Acknowledged to be the best and most attractive Fair in the Dominion.  
Large Cash and Special Prizes. Gold and Silver Medals in the Horse, Cattle and other Live Stock Classes.  
Special attractions for the amusement and entertainment of visitors every day.  
September is the best time to visit the Capital.  
CHARLES MACEE, F. ARTHUR JACKSON,  
297-a-O President. Secretary.

**THE GREAT CENTRAL - FAIR**  
—WILL BE HELD IN—  
**HAMILTON,**  
—ON—

Monday, Tuesday, Wednesday, Thursday and Friday,  
Sept. 22, 23, 24, 25 and 26, 1890.

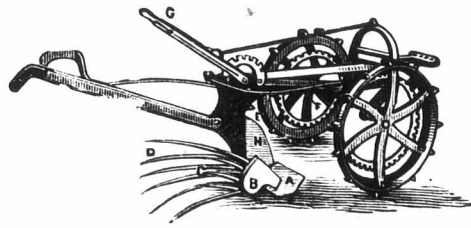
**ONE OF THE LARGEST AND BEST EXHIBITIONS IN THE DOMINION OF CANADA.**

Roadster, Draught, Pacer, Carriage & Trotter form a most magnificent Horse Exhibit of the very best breeds in the country.

Pacing and trotting by the best horses of Ontario every day of the Fair. Superb display of Fruit. Hamilton is in the centre of the garden of Canada, and has the finest displays of fruit in America. The Management have spared no expense to make the Great Central the Fair of 1890.  
W. H. GILLARD, C. R. SMITH,  
296-b-OM President. Sec.-Treas.

**WILKIN'S POTATO DIGGER**

is positively the best in the market, strong, simple and complete.

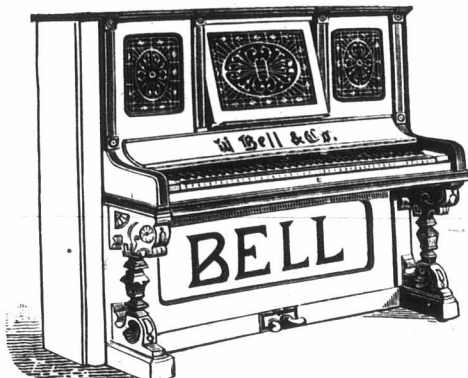


Shovel A raises the drill or hill. Mouldboard B and Standard H casts off the outsides. Prongs C and D move right and left alternately, with a drop of six inches from C to D. The potatoes are shaken to the surface by the quick action of the Double Action Prongs. Pitman F operates prongs; is fifteen inches above A; it cannot choke. Knife E cuts all tops and weeds that collect on Standard H. Send for circular, &c.

This machine will be exhibited at Toronto and London Fairs. All interested should make a point to see it. Agents wanted.  
ALEX. WILKIN, Manufacturer,  
297-a-O London P.O., Ont.

**GOLD MEDAL, PARIS, 1878.**  
**W. BAKER & CO.'S**  
**Breakfast Cocoa**  
*Is absolutely pure and it is soluble.*  
**No Chemicals**  
are used in its preparation. It has more than three times the strength of Cocoa mixed with Starch, Arrowroot or Sugar, and is therefore far more economical, costing less than one cent a cup. It is delicious, nourishing, strengthening, EASILY DIGESTED, and admirably adapted for invalids as well as for persons in health.  
Sold by Grocers everywhere.  
**W. BAKER & CO.,** Dorchester, Mass.

**J. F. QUIN, V. S., BRAMPTON, ONT.**  
Ridgling horses successfully operated upon; write for particulars. 275-y



**Pianos, Reed Organs & Church Pipe Organs**

THE STANDARD INSTRUMENTS OF THE WORLD.

Send for Catalogue.

**BELL ORGAN AND PIANO CO.,** Guelph, Ont.  
297-y-O

**I MAKE A SPECIALTY OF**

**Finely Finished Carts!**

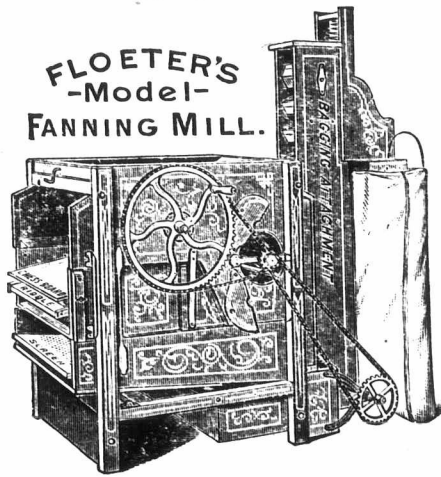
Double and single, large or small. My Ladies' and Children's

**PONY -- CARTS**

are by far the best in the market. All ride perfectly level and have no horse motion. Orders from a distance promptly attended to. Satisfaction guaranteed. Address

**WILLIAM NEWPORT,**  
WHITBY, - ONT.  
297-a-O

**Floeter's Model Fanning Mill with Bean and Bagging Attachments.**



A machine on entirely new and correct principles. Cleans and separates in the most perfect manner all kinds of grain and seed. It turns very easy and cleans faster than any other mill in the market. Our attachment, with rubber rollers for cleaning beans, is the most complete ever manufactured; the rollers are so placed in our mill that all large pieces of clay and other dirt are carried off by the Riddle and not permitted to run through the rollers, thus allowing the rollers to do very much superior work, also allowing the mill to turn very much easier. We guarantee all rollers to not come loose, as they are vulcanized on the shaft. Our mill, with attachments, for 1890, will eclipse any mill in Canada. We shall exhibit at all the principal fairs, and ask the intending purchasers to wait and see our mill or send for prices before purchasing elsewhere. Manufactured by **R. K. & S. B. FLOETER,** Chatham, Ont. 297-a-OM

# BRANDON

THE

## WHEAT CITY OF THE DOMINION

The CITY OF BRANDON is situated in the centre of a rich agricultural country, and has such a favorable position in the growing PROVINCE OF MANITOBA that her future is assured. Her situation, on the south bank of the Assiniboine river, fifty feet above the level of the water, affords perfect drainage. Although the city is but

### EIGHT YEARS OLD

it has a population upwards of 4,000, and has made great progress during these years. The erection of a new city hall and market to cost \$55,000 is now begun, and preparations are being made for the erection of a hospital costing \$14,000. Two ward shools have been built during the past year at the cost of \$15,000, and the School Board purpose erecting, during the coming year, a

### CENTRAL SCHOOL

to cost \$30,000, in order to provide for the ever increasing population. The Provincial Government have just completed a handsome brick building, as a training school for boys, costing \$30,000; also a

### LANDS TITLES OFFICE

costing \$12,000. The Dominion Government have this season expended \$40,000 in a

### Post Office and Dominion Lands Offices

and \$30,000 on

### EXPERIMENTAL FARM BUILDINGS.

Three prominent banking institutions are erecting magnificent buildings of stone and brick, showing the confidence our monied institutions have in the future of our country. The leading merchants have built large and expensive buildings three and four stories high. The City Council have engineers engaged preparing plans for a system of

### WATERWORKS AND SEWERAGE

which are to be undertaken forthwith. The Assiniboine river brings from the forests of the north millions of logs which are here manufactured into lumber and shipped to all parts of the Province and Territories, the slabs going a great way to provide the city with firewood, which is sold at \$2 per cord. Excellent clay is obtained for the manufacture of

### WHITE BRICKS

a couple of miles from the city, of which there are large quantities being manufactured and delivered to builders at \$8.50 per thousand. Foundation stones are easily obtained, also all other building material can be procured at reasonable prices, lumber being from \$14 to \$20 per M.

### LARGE DEPOSITS OF COAL

are located within 100 miles of the city to the Southwest, and at present both the C. P. R., and the N. P. & M. railways are constructing branches to these mines, which will give an abundant supply of coal at a low rate. Manufacturers should note this fact, as cheap fuel, cheap living for employes, and an abundant supply of raw material for many lines of manufacturing, their enterprises should be carried on in Brandon to successfully compete with the world, especially in articles of home consumption. In this connection we would draw their attention to the excellent

### RAILWAY FACILITIES

at this point, having the C. P. R. main line east and west, its Souris branch to the Southwest; the Great Northwest Central to the North, connecting with the M. & N. W at Rapid City; and the Northern Pacific and Manitoba to the Southeast, bringing the whole Province within easy reach of Brandon.

### WHOLESALE HOUSES

would find it to their advantage to locate here, as there is no point in the Province so favorably situated for their business. The city is lighted by electricity and has a most efficient fire department. Brandon district is unsurpassed from an agricultural point of view, as the soil is of excellent quality and easily worked; the water clear and pure and easily obtained—good wells being procured at a depth of twenty feet. There is more land under cultivation in this district than in any other part of the Province, and more wheat has been marketed at Brandon in past years than at any other point in the Dominion. Land has increased in value rapidly, and improved farms in some cases are worth \$25 per acre. Good land can yet be obtained within easy reach of the city at \$6 and \$8 per acre. Instances are given this year where the first crop has paid all expenses and paid for the land. The roads are excellent and the climate is most healthy. Our Eastern farmers should consider well the advantages of settling in a district so well supplied with invaluable advantages, including schools, churches, railway facilities, convenient market, excellent water and inhabited by progressive and intelligent farmers.

For any information regarding Brandon City or district address,

**J. C. KERR, City Clerk, Brandon, Manitoba.**

Who will be glad to reply to any and all enquiries.

297-a-O.M.

**STOCK GOSSIP.**

*In writing to advertisers please mention the Farmer's Advocate*

The attention of our readers is called to the advertisement of James H. Esdon, Bainsville, Ont. He offers, at a sacrifice, seven head of Clydes, either imported or bred from imported sires and dams. Read his advertisement.

Mr. D. McNaught of Rapid City, Man., has brought in three Holsteins, including two young cows and a bull which he purchased from Messrs. Hallman & Co., New Dundee, Ont. It is his intention to found a herd of these famous milkers.

We call the attention of our numerous readers to the new advertisement of Messrs. J. T. Harcourt & Son, St. Ann's, Ont. These gentlemen have this year imported a number of prize-winning Oxford Down lambs, which won second at the Royal Show, England, and are from the flocks of Adams, Brassy and others.

Wm. D. Reesor, breeder of Jersey cattle, Clydesdale horses, and Dorset Horned sheep, "Elm Park Farm," Markham, Ont., wrote us Aug. 18:—I enclose advertisement for September. You see I always return with an advertisement when I am overstocked, as I find your paper the best in Canada to advertise in.

On page 307 will be seen an illustration of Mercedes Prince, the sire of Mink's Mercedes Baron, the stock bull of the Credit Valley Stock Farm herd of Holstein-Friesian cattle owned by Smith Bros. In the October issue will appear a portrait of Mink, the dam of their bull, and from these a good idea can be formed of the class of stock they are raising.

Messrs. Green Bros., of Innerkip, report the following sales of Large Improved Yorkshire Pigs:—Boar to A. Crozier, Beachburg; boar to R. Carrick, Galt; boar to Wortman, Latimer; boar to F. Caldwell, Constance; boar to H. Gibson, Newcastle; boar to David Evans, Beaverton; boar to H. Wilcox, Chatham; sow to J. Featherston, Springfield, and a sow to J. Lawrence, Quebec.

Mr. W. H. Beattie reports the following sales of Shropshires:—To Chandler & Rose, Oregon, Wis., five ram lambs and six ewe lambs; stock ram Corstan's Pride (1830), and twelve imported ewes to S. C. Millson, Glanworth; fourteen imported ewes to James Cooper, Kippen, Ont. He reports enquiries coming in daily. Mr. Beattie intends visiting most of the principal fairs, including Toronto, London, and others, with a full flock. He still has a lot of show sheep of all ages on hand.

E. M. Jarvis, Clarksons, Ont., writes under date of Aug. 18:—My stock is in fine order and the demand is very good. I beg to report the following sales: J. Rice, Holstein, boar; E. E. Beach, Green Oaks, Mich., one boar; James Clarke, St. Mary's, one boar and sow; A. Pecket, Nassagaweya, one boar; James Erwin, Eden Mills, one boar; C. Purser, Chatham, two sows; Salem Arnold, Chatham, one sow; Thomas Watson, Springvale, one boar; A. M. Bechtel, Breslan, one boar.

Messrs. Beith's Sir Walter is back from his field, the County of Hochelaga, P. Q., where the Agricultural Society awarded him a prize of \$400 and a guarantee of sixty mares at \$10 each, payable at end of season. He also gained the gold medal given by the Clydesdale Society for best horse shown at the Montreal Horse Exchange of 1890. The horses belonging to this firm will be shown at the Toronto Industrial and other leading shows. All who are interested in Clyde horses should make it a point to see this horse.

R. Rivers & Son, Springhill Farm, Walkerton, report their Shorthorns doing fairly well on pasture alone as yet. A nice lot of bull calves. Matchless 1st of Springhill gave birth to a pair of red bull calves on 27th of May. The two were not able to take all her milk for a month, and since then she has kept them both in good thriving condition, contrary to a too prevalent belief that Durhams are not good milkers. Our Southdowns are doing nicely on the young clover without any grain. We have a few rams for sale at moderate prices. See advertisement in another column.

W. S. Hawkshaw, of Glanworth, writes us that he has sold to A. O. Fox, of Wisconsin, all his lambs (thirty), all of which were imported in their dams, and, were as expected, a very choice lot; nearly all were twins. He sold also W. E. Wright, of Glanworth, nine ewes of high quality, which were from the noted flock of Messrs. Bach, Shropshire, England. Mr. Millson, of Glanworth, having disposed of his entire flock of unregistered sheep, has started his new flock by having all imported sheep. He has secured a choice lot, and has shown good judgment in his selection. Mr. Hawkshaw's flock having been so reduced, he intends starting for England after the shows and will bring out another importation.

H. George & Sons, Cannington, Ont., have lately made the following sales of pedigreed Ohio Improved Chester White Swine:—To the Model Farm, New Brunswick, one boar and sow; Calvin Blair, Manotick, one boar; A. F. Beidell, Mohr's Corners, one boar and sow; W. M. Singleton, Crosby, one boar and sow; Thomas A. Bowles, Springville, one boar; R. C. Nixon, Esquesing, one boar; Jos. Reightyner, Wooler, one boar and sow; T. W. Horton, New Dublin, one boar; Peter Cochrane, Almonte, one boar and sow; Chris. Weiler, Farmosa, two boars and one sow; Geo. Christian, Keenansville, one boar; J. H. Burnet, Bruner, one boar; W. J. Campbell, Campbell's Cross, one boar and sow. We also sold to the Model Farm, New Brunswick, one Berkshire boar and sow, and one boar to P. G. Walker, Westwood. We find the sales of Improved Chesters far better than last year. Have still some fine young boars and sows for sale. We will show at the Toronto and London fairs this fall.

## FRUIT AND ORNAMENTAL TREES

Largest Stock in Canada of Strictly Graded GRAPE VINES.

Norway Spruce at unrivalled rates. A general line of nursery stock, guaranteed true to name by the undersigned who is responsible; has a reputation at stake and is a practical commercial fruit and plant grower. Buy direct, fellow farmers, if you would save money, risk and annoyance. Send a list of your wants for next season at once and get my prices.

Helderleigh Farms Nursery,

**E. D. SMITH, Prop.**

268-y-OM

Winona, Ont.

## CANADA Coach Horse Meetings

A meeting of members of the Canada Coach Horse Breeders' Society, and all persons interested in this class of stock, will be held on the

**Industrial : Fair : Grounds, : Toronto,**

— ON —

**THURSDAY, SEPT. 18th,**

commencing at 2 o'clock p.m., and in the

**Western Fair Board Rooms at London,**

on Tuesday evening, September 23rd,

at 8 o'clock p.m.

Papers will be read by prominent gentlemen and discussions had on the breeding of Coach Stock, in which farmers and breeders generally are invited to take a part. Full information and blank forms for entries can be had on application to the Secretary

**ARCH. WILSON, President,**

Paris Station.

**JAMES MITCHELL, Secretary,**

Goderich.

297-a-OM

## Coughing

IS Nature's effort to expel foreign substances from the bronchial passages. Frequently, this causes inflammation and the need of an anodyne. No other expectorant or anodyne is equal to **Ayer's Cherry Pectoral**. It assists Nature in ejecting the mucus, allays irritation, induces repose, and is the most popular of all cough cures.

"Of the many preparations before the public for the cure of colds, coughs, bronchitis, and kindred diseases, there is none, within the range of my experience, so reliable as Ayer's Cherry Pectoral. For years I was subject to colds, followed by terrible coughs. About four years ago, when so afflicted, I was advised to try Ayer's Cherry Pectoral and to lay all other remedies aside. I did so, and within a week was well of my cold and cough. Since then I have always kept this preparation in the house, and feel comparatively secure." — Mrs. L. L. Brown, Denmark, Miss.

"A few years ago I took a severe cold which affected my lungs. I had a terrible cough, and passed night after night without sleep. The doctors gave me up. I tried Ayer's Cherry Pectoral, which relieved my lungs, induced sleep, and afforded the rest necessary for the recovery of my strength. By the continual use of the Pectoral, a permanent cure was effected." — Horace Fairbrother, Rockingham, Vt.

## Ayer's Cherry Pectoral,

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.

Sold by all Druggists. Price \$1; six bottles, \$5.

292 y-O

**\$1,500.00**

— WORTH OF —

## STOCK, IMPLEMENTS, ETC

**GIVEN AWAY!**

For Procuring New Subscribers to the FARMER'S ADVOCATE.

### CONDITIONS:

- 1st. Cash must accompany all lists of names.
- 2nd. In all cases to secure these prizes the names sent in must be new subscribers. *Renewals will not count.*
- 3rd. Competitors may send in their lists weekly if they so desire. The party who first sends in the full number of names will secure the prize.
- 4th. A Cash Commission will be allowed to all who are not prize winners: From 10 to 20 names, 25cts. each; 20 to 50 names, 35cts. each; 50 to 100 names and upwards, 40cts. each.

### STOCK.

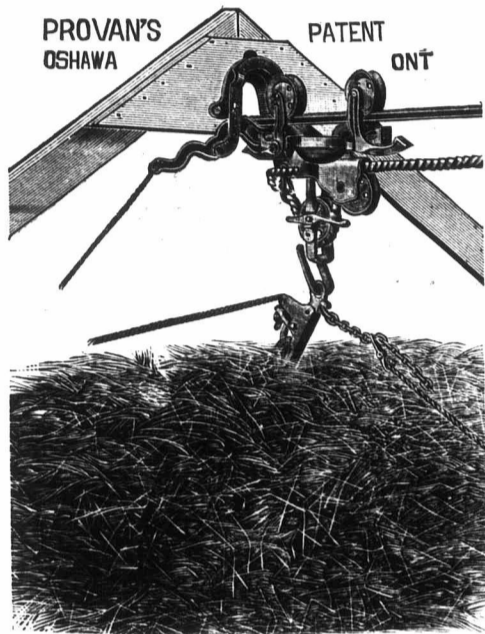
- For 150 new names we will give a Hereford Bull (fit for service), valued at \$150, bred by R. J. Mackie, Oshawa.
  - For 150 new names, a Shorthorn Bull (fit for service), bred by James Graham, Port Perry, Ont.
  - For 150 new names, an Ayrshire Bull (fit for service), bred by Thomas Guy, Oshawa, Ont.
  - A Heifer of any of the above breeds will be given for from 100 to 150 names, according to quality of animal.
  - For 35 new names we will give a pair (or single animal for 20) of Improved Large Yorkshires, from 6 to 8 weeks old, bred from imported English stock by Ormsby & Chapman, Springfield-on-the-Credit, Ont.
  - For 30 new names, a Shropshire Ram or Ewe Lamb, bred by John Miller & Sons, Brougham, Ont., or Jno. Dryden, M. P. P., Brooklin, Ont.
  - For 30 new names we will give a Cotswold Ram or Ewe Lamb, bred by Joseph Ward, Marsh Hill, Ont., or David Birrell, Greenwood, Ont.
  - For 30 new names will give a Leicester Ram or Ewe Lamb, bred by Jeffrey Bros., Whitby, Ont.
  - For 25 new names we will give a Berkshire Sow or Boar 6 months old, bred by J. C. Snell, Edmononton, or J. G. Snell & Bro., Edmononton, Ont., or by Wm. Linton, Aurora, Ont.
  - For 10 new names we will give a pair, or for 5 a single bird, of any of the following breeds: Light Brahmas, Dark Brahmas, Langshans, Black Red Games, any variety of Leghorns, Wyandottes, Dorkings, Spanish, Bantams, Ducks, etc. Eggs will be given as prizes when desired from the yards of Wm. Hodgson, Brooklin, Ont.
- We will give as subscription prizes young animals, either male or female, of any of the following breeds: Shorthorns, Herefords, Galloways, Ayrshires, Jerseys, a bull or heifer (of fair quality), purely bred, for 100 new subscribers, accompanied by \$100. We can also supply home-bred or imported stock of any desired breed, age or quality. In all cases we will guarantee satisfaction as to the quality, breeding and value of the animal. We will give very liberal terms to agricultural and other societies and farmers in new sections, special inducements in sheep and poultry. Write for particulars.

### IMPLEMENTS, ETC.

- For 110 new names a Bain Farm Truck, value \$75, manufactured by Bain Wagon Co., Woodstock, Ont.
- For 65 new names a Patent Iron Frame Section Spring Tooth Cultivator, value \$30, manufactured by J. O. Wisner & Son, Brantford, Ont.
- For 110 new names we will give a first class wagon, value \$75, manufactured by the Chatham Manufacturing Co., Chatham, Ont.
- For 75 new names we will give one of the celebrated Westward Ho Sulky Plows, value \$40, manufactured by Copp Bros., Hamilton, Ont.
- For 125 new names we will give one of Halliday's Standard Wind Mills, value \$75, manufactured by the Ontario Pump Co., Toronto, Ont.
- For 140 new names we will give a Hay Loader, value \$75, manufactured by Matthew Wilson & Co., Hamilton, Ont.
- For 100 new names we will give a large Straw Cutter with Carriers attached, value \$55, manufactured by B. Bell & Son, St. George, Ont.
- For 40 new names we will give a large Agricultural Furnace, value \$22, made by the Gowdy Manufacturing Co., Guelph.
- For 65 new names we will give a new Fanning Mill, value \$35, manufactured by Manson Campbell, Chatham, Ont.
- For 90 new names we will give one of Osborne & Co.'s large Stock Scales, value \$50, capacity 4,000 lbs., manufactured by Osborne & Co., Hamilton, Ont.
- For 40 new names we will give a Winchester Repeating Rifle or a Breech-loading English Shot Gun of latest design and good quality, or 10 new names we will send an imported Breech-loading German Rifle.
- For 40 new names we will give the Model Harness, valued at \$20, manufactured by the Farmers' Supply Co., 176 King St. East, Toronto.

All stock or goods shipped free on board the cars.

**PROVAN'S  
Horse Fork and Sling**  
IS THE BEST MADE.



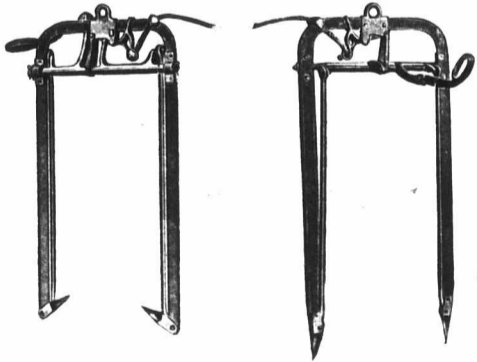
**SIMPLE, STRONG, DURABLE**

Many farmers who had other kinds have taken them down and bought mine after seeing it work.  
**My Machine Handles Sheaves as well as Hay and Peas—It is the Simplest and Best Stacker Manufactured.**

It has been in successful competition with the best in the market during the past six seasons. Its superiority to all others places it beyond doubt, as it is positively the only **Double-Acting and Self-Reversing Machine** on the Continent that has the following advantages: A loaded fork or sling can pass the stop block. The pulleys can be instantly lowered or elevated to their position. This avoids all climbing or untieing of the whiffletrees. The track acts as a strengthening brace, never warps, and is stronger and better adapted for unloading at the gable, as well as the centre, than any other. It is easily moved from one barn to another. The track used for this car is the best for the following reasons:—It is round; the car runs easily, and is not affected by a side pull. Any boy can change it with ease. Pulleys can be instantly raised or lowered at pleasure.

**GUARANTEE.**

We guarantee every Machine sold by us to do first class work, and to unload one ton of hay in from three to five minutes, when properly handled and put up, and if it fails to do so, will be taken back and money refunded.



**SENDING TO FARMERS ON TRIAL.**

It has been for years a part of our business to send our machine on trial to fair-minded, responsible farmers living at remote distances, such machines to be put up by them and used until their harvesting be half done, when they are required to decide whether they will keep the apparatus or return it; if the latter, we will pay return freight charges.

**J. W. PROVAN,**  
OSHAWA, - ONT.,  
Sole Manufacturer and Patentee.

**THE  
ELEVATOR : DITCHING : MACHINE**

for under-draining, is capable of doing the work of 30 men with spades.

Manufactured by **WM. RENNIE,**  
297-b-OM Toronto.



**DRS. ANDERSON & BATES,** Surgeons of the Eye, Ear, Throat and Nose, 34 North James St., Hamilton, and 17 Grange Road, Toronto. Sole agents for Prof. North's Earphone for the incurable deaf. 284-y



**Ventilated Barrel,**

Unequaled for the shipment of Apples, Vegetables, Dried Meats, &c. Especially adapted for early apples and winter storage. Prices in car lots less than the ordinary barrel in most localities.

**Jos. Williams' Co.**  
Goderich, Ont.  
297-b-O

**IMPORTANT :: INFORMATION !**

**Wide Awake Farmers**

**STOCK RAISERS**

We are Making a very Large Assortment of

- Ensilage Cutters,
- Power Feed Cutters,
- Hand Feed Cutters,
- Root Cutters,
- Root Pulpers,
- Grain Grinders,
- Horse powers,
- Jacks, Bag Barrows,
- Ensilage & Farm Trucks.

Our Goods are Right. :: Our Prices are Right.

Our New Illustrated Catalogue, fully explaining the merits of machines, together with Treatise on Silos and Ensilage, mailed free on application.

**WATSON MFG. CO. (Ltd.),**  
297-a-OM AYR, Ont.

**ADVERTISE IN THE ADVOCATE.**

**STOCK GOSSIP.**

In writing to advertisers please mention the Farmer's Advocate.

We would call attention to the annual sale at the Ontario Agricultural College, where specimens of different breeds of stock will be offered by public auction. Different varieties of seed grain will also be exposed for sale. See notice in our advertising columns.

Mr. Arthur Johnston, of Greenwood, Ont., in sending in his special advertisement for this month says:—The demand for young bulls was never better than during the last part of the past season. Females did not sell so rapidly. My Shorthorns were never in finer flesh on the grass. In this issue he advertises for sale nine very superior yearling heifers, as well as an extra lot of two-year-old and three-year-old heifers.

Naisbitt Bros., formerly of Nelson township, Halton county, Ontario, have now established a stock farm four miles south of Rapid City, Man., where they have erected substantial stone buildings and are getting everything in shape for successful breeding. Mr. Bright Naisbitt, the younger brother, settled there in the spring of 1882, taking with him four pure-bred Shorthorns of the Bates family which have been increasing ever since, only the males being sold. G. & W. Naisbitt, elder brothers, who continued in Ontario, joined their brother at Rapid City in the spring of 1889, bringing an addition to the herd of four females and two males. The females were three of the Bates family and one Cruickshank; also a sire of the Sheriff Hutton blood, Lord Stanley, which is now at the head of the herd. Their herd now numbers forty head which are all young, healthy stock and are the foundation for one of our future large herds in this growing young Province.

Messrs. Sharman & Sharman, Breeze Lawn Farm, Souris, Man., writes us as follows:—Our sale of Shorthorns during the Brandon Fair, July 24th, was fairly successful for this time of the year, especially as it followed the short crop of last year. Lady Howard sold to Wm. Stephenson, of the Lowe Farm, for \$230; Princess 3rd, \$200; Belle 4th, \$195; Eva, \$180. To Daniel F. Boissevain, of Cannington Manor, Assa., Ruby Hill, \$145; Gean Blossom, \$95; Belle of B. L., \$60. Heifer calves to T. M. Percival, of Brandon, and Matchless 31st, \$60, to G. L. Smilie, of the Scottish Ontario Land Co., of Binscarth. We were sorry to put up such stock at auction, but owing to the retirement of W. E. Sharman from the firm it was the most satisfactory way to close out the business. The business will still be carried on under the old name and at the same place, Breeze Lawn Farm, Souris, Man. We have already made several purchases with which we feel confident of making show-ring records in the near future and of which you will hear later on.

Mr. J. C. Snell, Edmonton, Ont., writes us, as evidence of the popularity of Berkshires pigs in England, that he was shown the books of Mr. Henry Ruck, of Castle Hill, Wiltshire, which showed that his sales of pedigreed Berkshires in the year 1889 were 816 head, most of which were sold to fill orders received by mail. This is the report from only one herd, whose owner is a modest man, who does not blow his own trumpet in the market places, and yet there are men who have the nerve to place their name over the statement that "Berkshires are not wanted." In the same letter, Mr. J. C. Snell reports the safe arrival of his new importation of Berkshires, comprising a number of young boars and sows from the herds of Mr. Benjamin, Wm. Hayter, and others, and including several of the prize winners at leading shows in England this summer. These are a very meritorious lot, combining size, symmetry and quality in a high degree, and are a valuable acquisition to the herd. He also writes that the demand for Cotswold rams has been greater this summer than for many years, and orders have been received from many of the States, and nearly all of the Provinces. The sheep business is steadily growing, and the numerous enquiries for Cotswolds show that they are wanted all over the Continent.

Mr. David Buttar, Coreton, Coupar, Scotland, writes as follows, under date of August 4th, 1890:—I write to let you know how my flock of Shropshires have done in the showyard this season. I won at Edinburgh Association Show 1st for aged ram; 1st, 2nd, 3rd and 4th for shearling rams; 1st for breeding ewes; 1st and 2nd for shearling ewes; Shropshire Breeders' Cup for best pen of females. At Dundee, Highland and Agricultural Show (our native show): Aged rams, 1st, 2nd and 3rd; shearling rams, 1st, 2nd, 3rd, 4th, 5th and 6th; breeding ewes, 1st and 2nd; shearling ewes, 2nd and 3rd. At Stormont Union Show: Aged rams, 1st and 2nd; shearling rams, 1st and 2nd; breeding ewes, 1st and 2nd; shearling ewes, 1st and 2nd. So you will see I have almost made a clean sweep this time, and that also against all the principal breeders of Shrops in Scotland. You will probably have heard that I sold 12 beautiful shearling ewes to Jas. McFarlane, Clinton, Ont.; two rams and 32 ewes to W. H. Beattie, Wilton Grove, Ont., and two rams and nine ewes to John Dunkin, Brucefield, Ont. These made a very nice lot and ought to be heard of again in their new home. I have also sold two of my show rams and three show ewes to go to New Zealand, where there is a demand for this most profitable breed of sheep.

Agents Wanted in Every Locality.

**STOCK FOR SALE.****FOR SALE,**

At a very low figure, a grand young Cleveland Bay Stallion—W. C. BROWN, Cleveland Bay Stock Farm, Meadowvale, Ont. 297-g-OM

**Imported Clydesdale Fillies FOR SALE.**

A four-year-old mare, second at Toronto last year, now in foal; also a three-year-old, and a few Shorthorns.

**John Isaac,**  
297-a-OM MARKHAM, ONT.

**IMPORTED -- CLYDESDALES**

I have just returned from Scotland with my last importation, all good, hard-shanked, heavy-boned colts, including prize-winners at several leading shows. I can sell a first-class horse as low as any importer in America. Do not buy till you see my stock. Also a few choice fillies, imported and Canadian bred.

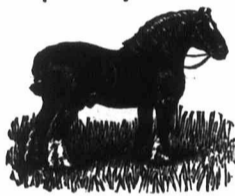
297-g-OM **NEIL SMITH,** Brampton, Ont.

**A. B. SCOTT & SON,**  
VANNECK, - - - ONTARIO,

IMPORTERS AND BREEDERS OF

**REGISTERED CLYDESDALES**

The get of McGregor, Belted Knight, Good Hope, etc. Colts and fillies, winners at all the large shows, for sale at moderate prices. 293-v-OM

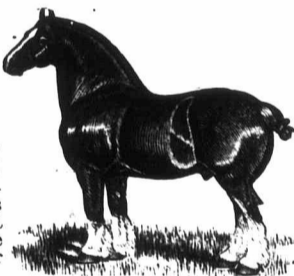
**Imported Clydesdale Stallions and Mares for Sale.**

Each stallion guaranteed a breeder. Prize-winners and the get of prize-winners compose our shipments. Grand style, clean legs, sound feet, together with fine action and perfect constitution are characteristics found in every one of our horses. Intending purchasers should see our stock. Terms made very easy. Visitors always welcome. Catalogue on application.

**DUNDAS & GRANDY,**  
285-y CAVANILLE STATION and TELEGRAPH OFFICE C. P. R.  
SPRINGVILLE P. O.

**FOR SALE.**

—IMPORTED—

**Clydesdale Stallions,**

The get of some of the most celebrated prize winners—such as McCammon, Garnet Cross, Bay Prince and other popular sires.

297-c-OM **HUGH THOMSON,** St Marys.

**Prize-Winning Clydesdales****FOR SALE.**

I have for sale SEVEN HEAD of finely bred Clydesdales. The lot consists of three

**Brood Mares**

and four

**= STALLIONS =**

All are IMPORTED or bred direct from imported stock. They have been very successful in the show rings, having won all the honors for which they have competed. The entire lot

**MUST BE SOLD**

at an early date.

**This Sale offers a Grand Opportunity**

to parties desiring to BUY reliable breeding stock. They will be sold singly or in one lot.

Write for prices and particulars to

**JAMES H. ESDEN,** - - Bainsville, Ont.

A full description of my stud will appear in the October number of this paper. 287-a-OM

**WANTED TO EXCHANGE,**

Imported Clydesdale Stallion, five years old, for a pair of farm mares. For particulars address 297-a-O **A. RODDICK,** Cote St. Paul, Montreal.

**Pure-Bred Registered Clydesdales & Jerseys**

Bred from pure imported stock. Young stock for sale at farmers' prices. 293-y-OM

**JOHN PULFER,** Springvalley Farm, Brampton, Ont.

**ROBT. NESS, Woodside Farm**

—IMPORTER AND BREEDER OF—

**CLYDESDALES, SHIRES, SHETLANDS, Ayrshire CATTLE**

The eleventh yearly importation consists of some of the best specimens of the several breeds, Clydesdales from such noted sires as McGregor (1487), Crown Royal (4315), Top Gallant (1850), Macfarlane (2988), Macbeth (3817), Sir Hildebrand (404), Golden Guinea (3960), Old Times (579), Good Hope (1679), Knight of Snowden (2212). The stock is selected by myself with great care. Intending purchasers are invited to inspect.

The farm is situated 40 miles south-west of Montreal, on the G. T. R., and 100 miles east of Ottawa, by C. A. R. Howick Station on the farm.

**ROBERT NESS,** HOWICK P. O., Que.

Visitors always welcome. 291-y-OM

**ENGLISH PEDIGREE LIVE STOCK.**

Shire Horses, Shorthorn and Hereford Cattle, Shropshire, Dorset, Hampshire and other Sheep, Berkshire and Yorkshire Pigs, etc.

**E. G. PREECE,**

LIVE STOCK AGENT,

SHREWSBURY, ENGLAND,

has choice registered stock for sale at moderate prices, from the best studs, herds and flocks. Foreign buyers assisted in the purchase and shipment of stock. Choice animals of various breeds bought on commission. Special low freights. Highest references. Terms for buying 2½ per cent. All importers should communicate. 296-j

**300 PERCHERONS, 100 FRENCH COACHERS**

Comprising my importations for 1889, are now on exhibition at

**ELLWOOD'S RANCH,**

DeKalb, Illinois.

This collection embraces all the FIRST and SECOND PREMIUM STALLIONS (with one exception); the First Premium for best Collection of Stallions; a majority of First and Second Premium Mares; shown at the greatest of all Percheron Shows, held at La Ferte Bernard, from May 29, to June 2, 1889.

The quality of this stock is guaranteed superior to any importation that ever crossed the water. In addition to the superior Draft animals which have ever characterized my selections, particular attention has been given to the selection of Coach Stallions, which is the largest ever brought from France by any importer. Conspicuous among this lot is the selection made from the famous stable of Edward de-la-Ville, being the only party that was willing to pay the price that would bring the quality of horses handled by Mr. de-la-Ville to this country; he having been the recipient of more show ring honors than any other owner of Coach horses in Normandy. It will be to the interest of intending purchasers to make a careful examination of quality and prices before buying. I desire to impress upon my customers that, as heretofore, I was the first American buyer in France this season, and my selections are made from the leading studs, and having the first choice of all of them, I spared no expense to secure the best. All stock fully guaranteed. Favorable prices and terms. For particulars, address,

**W. L. ELLWOOD, Proprietor,**

DeKalb, Illinois.

DeKalb is situated on C. & N. W. Ry. 58 miles west of Chicago. 288-y

**LA COMPAGNIE DU HARAS NATIONAL**

30 St. James St., Montreal, Canada.

**40—STALLIONS NOW ON HAND—40 THOROUGHLY ACCLIMATED.**

Stable, Outremont near Montreal. Medavy breeding and sale farm, Perche, France. **SPLendid PERCHERONS** (stallions and mares), French Coach Horses (Normans), all with first-class pedigrees. Our connections in France enable us to import cheaper than any one else. For terms of sale and for our catalogue apply to the office. **HON. L. BEAUBIEN,** President, Montreal, Canada. **BARON E. DE MANDAT GRANCEY,** Vice-President, 5 Av. Friedland, Paris, France. **R. AUZIAS-TURENNE,** Manager. 289-y

**Shorthorns for Sale.**

Bulls and heifers, sired by Laird of Kinellar, of the Campbell-Buchan Lassie family, from which we have some fine show animals, several prize takers at the Provincial Show, 1889.

**JAMES CRERAR,**

294-y-OM

SHAKESPEARE, ONT.

**BOW PARK HERD**

—OF—

**PURE-BRED SHORTHORNS.**

We have on hand Eighteen Young Bulls, fit for service, that we offer at reasonable prices and easy terms. They are good individuals, and well bred. ADDRESS—

**JOHN HOPE, Manager,**

290-y

Bow Park, Brantford, Ont.



**D. ALEXANDER,**  
Brigden, Lambton Co., Ontario.

My Shorthorn herd now consists chiefly of Imp. Lady Violet Lustre and seven of her daughters, and two daughters of Imp. Beauty 15th, almost all sired by one bull, and of one character, thick, and fine quality. Can furnish a splendid young herd at reasonable prices. Trains twice daily. Station one mile. 294-y

**DAVID BIRRELL, Greenwood, Ont.**

Breeder and Importer of First-class

Clydesdales, Cotswolds

—AND—

Scotch Shorthorns.

**YOUNG and BREED-**

**ING STOCK for SALE**

at prices to suit the times.

A call or correspondence

solicited. Pickering is my

station on the G. T. R.,

and Claremont on C.P.R.

286-y

**SHORTHORNS**

—AND—

**COTSWOLDS**

**FOR SALE.**

My Shorthorns are well bred, good colors, and have been fine milkers for generations. I have over 100 females and a large number of bulls, from which buyers may select. Prices to suit the times. Satisfaction guaranteed. Correspondence promptly answered. Visitors welcome.

**JAMES GRAHAM,**

290-y

PORT PERRY, ONT.



**FOR SALE** 12 head of Shorthorns, bulls and heifers; 20 Leicester and South-down Ram Lambs, and about 30 Berkshire Pigs. All bred with care. Send for prices 294-y-OM **EDWARD JEFFS, Bond Head, Ont.**

**SHORTHORNS AND COTSWOLDS.**

**MESSRS. J & W. RUSSELL,**

Springbrook Farm,  
**RICHMOND HILL, - ONTARIO,**  
Have for sale a few well-bred Shorthorns, bulls and heifers, got by their sweepstakes bull "Stanley," and out of prize winning imported cows.  
Also pure-bred Cotswold Sheep, including this season's importation from the flock of Mr. Robert Jacobs, Gloucestershire, England. 297-a-OM

**S. J. PEARSON,**

VALLEY HOME STOCK FARM,  
**MEADOWVALE, ONT.,**

has for sale some grand young Shorthorn bulls and heifers of a good milking strain and sired by the pure Booth bull Sir Hedmond (2453), who, as can be seen by reference to the Herd Book, is one of the purest Booth bulls ever brought to Canada.

**PRICES RIGHT.**

Write or call.  
N.B.—Stock will be exhibited at the Industrial Fair, Toronto. 297-a-OM

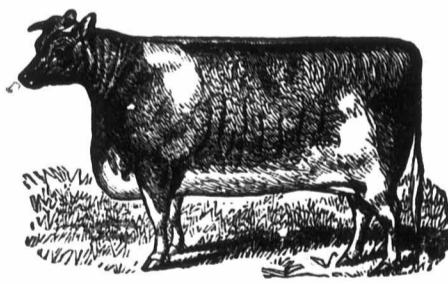
**EASTWOOD  
HERD AND FLOCK**

—SOME EXCELLENT—  
**Shorthorn Heifers,**  
BOW PARK STOCK.

**IMPORTED SHROPSHIRE SHEEP**  
—REGISTERED—  
**RAMS AND BULLS, CHEAP.**

Address **T. C. PATTERSON, P. M., Toronto.**  
N. B.—Eastwood is next station east of Woodstock, on G. W. R. 297-c-OM

**FOR SALE**



**ARTHUR JOHNSTON,**  
Of Greenwood, Ont.,

Offers for sale at moderate prices an exceedingly good lot of

**= YEARLING =**

Two-year-old, and three year old  
**SHORTHORN :- HEIFERS**

OF THE VERY BEST SCOTCH FAMILIES.

All by imported bulls, and mostly from imported dams.

Write for particulars. 297-a-OM

**C. & C. CHRISTNER,**  
Haysville P. O., - Ont.,  
Breeders of  
**Shorthorns and Registered Shropshire Sheep.**  
Stock for sale. Correspondence solicited. 297-a-OM

**FOR SALE,**

A few Shorthorn and high grade heifers and cows, bred to Silver King 4th, a grand son of (imp.) 4th Duke of Clarence, so long in use at Bow Park. Good colors and pedigrees. Also a few choice registered Berkshires, male and female, six months old. Leicester and Southdown sheep. Prices to suit the times. Correspondence promptly answered.  
**R. RIVERS & SON, Springhill Farm,**  
293-y-OM **Walkerton, Ont.**

**SIMMONS & QUIRIE**

Shorthorns, Berkshires.



Representatives of the Scotch families are **MINA'S & STRATHALLEN'S**. The sires in use are the Sweepstakes Silver Medal Bull **SIR CHRISTOPHER and RED KNIGHT**, winner of 1st prize at Toronto and London in 1888; also, prize-winning Berkshires. 297-y-OM

**5--Grand Young Bulls--5**

I have five grand young Shorthorn Bulls for sale, sired by my imported Scotch Bull Goldfinder. These are

**A1 Bulls Individually,**  
And have from one to four  
**Top Crosses of Imported Scotch Blood.**

I can and will sell these bulls at prices that will pay any farmer, even though times are hard. If you want a bull write, or else come and see.

**WM. WILSON,**  
Hadden Hill Farm,  
**BRAMPTON, - ONT.**  
Box 192. 297-a-OM

**FOR SALE.**

—ONE IMPORTED—  
**Polled-Angus Bull, Aged, Noxon,**

No. [89], (6290). Registered Pedigree.

**ONE YEARLING**

Past, rising two,  
**Royal Prince.**

Pedigree No. [90]. Also

**BULL CALF,**

Eligible to register.

These Bulls will be sold reasonable considering quality of stock. Also a No. 1 lot of Oxford-Down Ram Lambs and Yorkshire Pigs of all ages. Address

**ANDREW GILMORE,**  
**OAK DALE FARM,**  
Huntingdon, - Quebec.  
297-a-OM

**HILLHURST HERDS**

**ABERDEEN, ANGUS, HEREFORD,**

—AND—  
**A. J. C. C. JERSEY CATTLE.**

Choice Young Bulls and Heifers of the above breeds for sale at moderate prices at all times. A few fine, young Hereford Bulls, by Cassio, at low prices if taken at once.

**M. H. COCHRANE,**  
286-y **HILLHURST P. O., Compton Co., O.**

**ADVERTISE IN THE ADVOCATE.**

**AMERICAN CATTLE CLUB JERSEYS**

Bulls, Cows and Heifers of St. Lambert's and other noted imported families.

**F. G. BRAMELD,**  
297-a-OM **OAKVILLE, ONT.**

**Riverside Farm.**

**PURE-BRED A. J. C. C. JERSEYS**

—AND—  
**ESSEX PIGS.**

Prince of Oaklawn (imp.) 12851, heads the herd. Young stock for sale. Also a few choice unregistered and high grade cows.  
Farm one mile from Streetsville Junction. **J. H. SCARLETT, Streetsville, Ont.** 297-y-OM

**MR. A. McLEAN HOWARD, JR.**

—BREEDER OF—  
**REGISTERED - JERSEY - CATTLE**

—ALSO—  
**HACKNEY AND COB HORSES.**

Has always a few for disposal. For particulars address,  
**A. McLEAN HOWARD, JR.,**  
297-a-OM **Glen Duart Farm, TORONTO, CAN.**

**CHOICE  
Jerseys for Sale.**

All ages and sex, of best milk and butter strains, St. Lambert blood prevailing. This herd has won sixteen medals (gold, silver and bronze), one hundred and forty prizes in money, several diplomas, many discretionary prizes, solid silver cup at Kellogg's New York sale for best prices on five head, silver tea set donated by FARMER'S ADVOCATE at London, 1889, for three best dairy cows of any breed.

**MRS. E. M. JONES,**  
Brockville, Ontario, Canada.  
291-y-OM

**PARK HILL HERD OF AYRSHIRES.**

This herd took all the first prizes in Quebec in 1887 and 1888, and in Ontario in 1889, in competition with all the leading herds. Young stock for sale, all of which is from the celebrated bull **ROB ROY** (3071), which is at the head of the herd.

**JAMES DRUMMOND,**  
291-y-OM **PETITE COTE, MONTREAL, P. Q.**

**Prize Winning Ayrshires for Sale.**



**GURTA 4th**  
(1181)  
Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address

**THOS. GUY,**  
290-y **Sydenham Farm, Oshawa, Ont.**

**W. J. RUDD,**  
**EDEN MILLS,**

—BREEDER OF—  
**Devon Cattle.**

A choice lot of  
**Young Bulls.**

—Also—  
**Cows--in--Calf,**

and a particularly good lot of heifers. Also  
**COTSWOLD SHEARLING EWES.**  
297-a-OM

**HOLSTEINS, CLYDESDALES & CARRIAGE HORSES**

I have one of the oldest herds of Holsteins in Canada, founded on the best blood in America; also registered Clydesdales and Carriage horses.  
J. O. A. LINE, Sherwood, Ont.,  
297-y-OM

**CHOICE HOLSTEINS FOR SALE.**

I have a few very nice pure-bred registered Holsteins, bulls and heifers, for sale at very reasonable figures. Write or come and see me. Also one or two high grades.—J. O. A. LINE, Sherwood, Ont., Richmond Hill Station.  
291-y-OM

**PURE-BRED REGISTERED HOLSTEIN-FRIESIANS.**

All imported or bred from imported stock. "Sir Mac," of the famous Aaggie tribe, heads the herd.  
**HUGH McCAUGHERTY & SON,**  
297-y-OM Walnut Hill Farm, STREETSVILLE, ONT.

**Pure-bred Holsteins, Cheap**

Having leased my farm I have one or two choice Holstein cows and heifers that I reserved from my sale last fall which I will sell at two-thirds value. Also a grand two-year-old road Stallion got by "Forest Mambrino," dam by "Blucher," the sweepstakes stallion at the Centennial Fair.  
Address: S. SHUNK, Jr., Thornhill Station, Edgely P. O., Ont.  
297-a-OM

**BROCKHOLME STOCK FARM.**

**Holstein-Friesian Cattle.**

ADVANCED REGISTRY STOCK.  
Netherland Romulus, a grandson of Netherland Prince and Albino the second, heads the herd. Young stock for sale.  
R. S. STEVENSON, Proprietor,  
295-y-OM ANCASTER P. O., ONT.

**H. & W. F. BOLLERT,**

Cassel, Ont.,

**HOLSTEIN-FRIESIANS,**

Comprising Aaggie Barrington, Bonnie Queen, Jennie B. Trijntje, Glenburine and Geldertje families. Stock for sale at reasonable rates. Railroad station, Tavistock, on G. T. R.  
294-y-OM



**HOLSTEIN-FRIESIANS**

The Choicest and most Uniform Herd in Canada.



Telegraph and Post Office, New Dundee, Waterloo Co., Peterburg Station, on G. T. R. Send for our new catalogue.  
**A. C. HALLMAN & CO.**  
294-y-OM

**Prize Holsteins for Sale.**

About disposing of my farm, I offer for sale my entire herd of Holstein Cattle. This is the finest herd in Canada, having for the last three years won more money prizes, more gold and silver medals, and more diplomas than was ever won by any herd of any breed at same number of exhibitions in this province. At the Industrial in Toronto last fall, with an American expert as judge, we practically swept the ring, taking first for aged bull, sweepstakes for best bull of any age, first for yearling bull, first, second and third for cows, and first herd prize for best bull and four females. (Breeder will understand what that means.) Whether the herd is sold or not, it will not be exhibited this year. Small breeders will therefore have a chance to get what they have never been able to do since I have exhibited a share of the principal prizes.  
JOHN LEYS,  
295-a-OM TORONTO, ONT.



**OXFORD-DOWN RAM FOR SALE.**

(Eramosa Chief)  
Eramosa Chief is the winner of 2nd prize at Provincial Exhibition, London, 1889. A number of pure Oxford-down Ram Lambs for sale. J. T. Harcourt & Son, "Maplewood Farm," St. Ann's P.O., Ont.  
279-y-OM

**WILLIAM DAVIES, GUERNSEY CATTLE**

**Large Improved Yorkshire Pigs.**

The advertiser desires to call the attention of farmers to the great satisfaction purchasers of above have expressed, as per unsolicited testimonials below:—  
The calf is a much better animal than I expected to get and certainly all that you represented him to be.  
W. J. VEITH,  
Halifax, N. S., Nov. 11th, 1889.

We are pleased to say the young bull has proved satisfactory.  
KNIGHT BROS.,  
Popcum, B. C., July 29th, 1890.

Pigs received in good shape, and truly, Mr. Davies, I was very much pleased with them. They were past my expectations. If you have another old enough, send it to me for one of my neighbors.  
J. W. LEE,  
Simcoe, Dec. 17th, 1889.

He is a fine pig.  
Manchester, Mar. 17th, 1890.

I am very well pleased with the pig.  
Carlingford, Feb. 22nd, 1890. GEO. LIVERSAGE.

I received pig all right. Am well pleased with him. So is every one who has seen him.  
W. M. BREAT,  
Raglan, June 26th, 1890.

I like the boar very much.  
Compton, July 29th, 1890.

Pig arrived in good form and am pleased to say he exceeded my expectations.  
JAS. S. WAUGH,  
Chatham, July 24th, 1890.

I am very much pleased with the Yorkshire pig I got of you a year ago. He has done well and I have never regretted that I got him. I have made \$40 out of him and won 1st prizes.  
W. C. HUFF,  
Mountain View P. O.  
297-a-OM

**JOHN SMITH,**

Live Stock Auctioneer, Brampton, Ont. Sales conducted in all parts of Canada and the United States. Pedigree stock a specialty. Write for terms. References: J. C. Snell, Brampton, Ont.; M. H. Cochrane, Compton, P. Quebec; T. C. Patteson, Eastwood, Ont.  
297-y-O

**PURE-BRED SOUTHDOWN SHEEP.**

My flock was founded in 1870, and has been bred with the greatest care since, none but rams of the choicest strains of imported blood having been used. "Halton Hero," winner of 8 1st prizes, now heads the flock. I have some grand ram lambs that I will sell at farmers' prices.  
JOHN. W. ALTON,  
297-f-OM Cedar Grove Farm, OAKVILLE, ONT.



**Green Grove Stock Farm**

Jersey Cattle of the very best butter strains. Choice South-down Sheep, Berkshire Pigs and Fancy Poultry. Young stock for sale.  
J. W. BUSSELL & SON, LISGAR P. O., ONT.—  
Stations—Streetsville and Lisgar, on C. P. R. 295-f-OM

**SOUTHDOWNS.**



To make room for my fresh importation, lately landed, I will sell the whole of my flock, consisting of

Sixty Southdown Ewes and Lambs

of my own breeding. These sheep are large and first-class quality. Prices very reasonable.  
DAVID H. DALE,  
Glendale, Ont.

**DORSET HORN SHEEP**



These sheep drop their lambs at all seasons of the year; are good mothers and most prolific. Devon Dairy Cattle, good milkers and grazers. Flock and Herd established nearly one hundred years. Also Shire Horses and Berkshire Pigs, Sheep, Horses and Pigs exported to America have given every satisfaction.  
**THOMAS CHICK,**  
Stratton, Dorchester, Dorset, England.  
295-y-OM

**FOR SALE.**

**SHROPSHIRE SHEEP.**



A few Imported Ewes, Ewe Lambs and Ram Lambs, all good ones and registered. Prices low. Also several choice Jersey Heifers and Bulls.  
W. D. REESOR, "Elm Park,"  
Markham, Ont.  
297-a-OM

**SHROPSHIRE**



I have on hand a splendid crop of lambs, all from imported ram, and mostly from imported ewes.

Shearling Ewes, similarly bred; also Imported Ewes. Sheep in American Shropshire Record; also some very good grades.

S. A. MILLSON,  
GLANWORTH, ONT.  
295-y-OM

**SHROPSHIRE**



MY SPECIALTY.

I beg to lay before intending purchasers that my recent importation have proved themselves to be very prolific, fully realizing my expectations, as I have had a very heavy crop of lambs, all of which are by the most noted sires of recent years. Purchasers should inspect this stock before buying elsewhere.

**W. S. HAWKSHAW,**  
GLANWORTH, ONTARIO.  
Seven miles south of London. 291-ff-OM

**IMPORTED Shropshire Ewes and Rams**



I have again secured the pick of the Bulwell Flock and offer the same at prices that cannot be duplicated. Amongst the importation are a very select lot of rams the head of any flock, and there are also ten very choice show shearling ewes.  
Come and see them.

**RICHARD GIBSON,**  
296-a-OM DELAWARE, ONT.

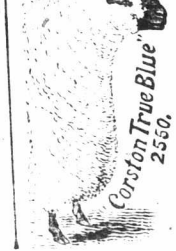
**SHROPSHIRE -- SHEEP.**



This flock has won numerous prizes in England for the last twenty years, besides America, France and Africa. Has been established over seventy years. Several of the best flocks in England started from this flock thirty years back. Sheep always for sale.

**F. BACH & SON,**  
289-y Onibury, Shropshire, ENGLAND.

**SHROPSHIRE SHEEP**



**DAVID BUTTAR,**  
Corston, Couper-Angus, N.B., Scotland  
Has taken all the principal prizes in Scotland for several years. His sheep are of the purest blood, and carefully bred; every sheep eligible for registration. Pedigrees and prices on application.  
294-y-OM

**SHROPSHIRE**

**Improved Yorkshire Pigs.**



A choice lot, imported by ourselves. Sheep from the flocks of H. J. Sheldon, F. Bach, R. Mansell, J. Thonger. Yorkshire pigs from last years prize winners.

**W. MEDCRAFT & SON.**  
SPARTA, P. O. and Telegraph Station 297-y-OM

**FOR SALE.**

**A Choice Lot of Shropshires.**

Shearling Rams and Ram Lambs got by imported rams. Dams all registered.

**J. S. HANMER & SON,**  
Mount Vernon, Ont. 297-a-OM

**Improved Yorkshire Hogs and Shropshire Sheep,**

All bred from imported stock and registered.

**JAS. HALL,** Edmonton, Ont. 293-y-OM

**IMPROVED -- LARGE -- YORKSHIRES!**

All bred from imported stock and registered. Imported boar "Holywell Wonder II." heads the herd.

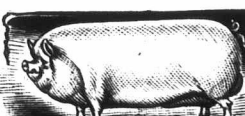
**JAMES FIELDS,** Castle Hill Farm, ANCASTER, ONT. 293-y-OM

**Improved Large Yorkshire Pigs**



From the strains of Sanders Spencer and F. Walker Jones, England. Registered young pigs for sale. Apply to

**WILLIAM GOODGER,** Woodstock, Ont. 293-y-OM

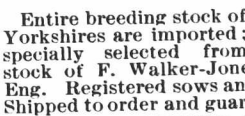


**CECIL FRENCH,** Ightham Court Farm Truro, N. S. Importer and Breeder of

**Improved Large White Yorkshire Pigs**

Our herd consists of two importations from F. Walker-Jones, and N. I. Hine, Eng. Registered stock for sale at all times.

**J. E. BRETHOUR,** Burford, Brant Co., Ont. 293-f-OM



**MADAMOISELLE (IMP)**

**THE - GLEN - STOCK - FARM**

SCOTCH SHORTHORNS, SHIRE HORSES, Improved Large (White) Yorkshire Pigs.

Our pigs are specially selected from the prize-winning herds of Sanders Spencer, Ashforth, Charnock and F. Walker-Jones, who won upwards of \$10,000 in prizes in three years. Orders now booked for young registered pigs. Shorthorns and Shire horses for sale.

**GREEN BROS.,** INNERKIP, Oxford Co., Ont. 292-y-OM



**DAISY (IMP) [22]**

**R. H. HARDING,** Mapleview Farm, THORNDALE, ONT.

Importer and Breeder of Ohio Improved Chester White Swine. First-class stock, eligible for registry, always onhand. Prices Right. Correspondence Solicited. 297-c-OM

**CHESTER WHITE PIGS**

FROM PRIZE IMPORTED STOCK FOR SALE.



Special Rates by Express. 296-tf-OM R. & J. GURNETT, Ancaster, Ont.

**DANIEL DeCOURCEY**

BORNHOLM, ONT., Importer and Breeder of



OHIO IMPROVED CHESTER (WHITE) SWINE.

I have twenty choice sows to farrow this spring; have used six imported boars, so I am now ready to book orders for pairs or trios not akin. Pedigrees furnished; prices moderate; single rates by express. Mitchell Station and Telegraph Office. 293-y-OM

**H. GEORGE & SONS, CRAMPTON, ONT.,**

Importers and Breeders of



Ohio Improved Chester White SWINE.

ALSO SUFFOLK & BERKSHIRE SWINE

We will have over one hundred pigs for spring trade, sired by four noted imported boars. Orders booked for spring pigs in pairs not akin. All breeding stock recorded. Correspondence solicited. Single rate by express. 296-y

**E. D. GEORGE**

PUTNAM, - - ONT.

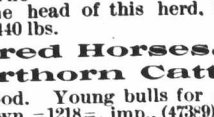


Importer and Breeder of Ohio Improved Chester White Swine

I have bred fourteen choice Sows for spring trade; have used four imp. boars. Orders booked for spring pigs in pairs not akin. Pedigrees furnished. Prices right. Special rates by express. 293-y

**A. FRANK & SONS, The Grange P. O.,**

Ont., Cheltenham Station, C. P. and G. T. Railways. The Centennial - Sweepstakes herd of



SUFFOLK PIGS, being the oldest, largest, and most successful prize winners in America. The boar 1-am-First, at the head of this herd, is 17 months old and weighs 440 lbs.

**Thoroughbred Horses.** Shorthorn Cattle of the Cruickshank blood. Young bulls for sale, got by Baron Camperdown = 1218 - imp., (47389) and Baron of the Grange = 10954 - Also

**Southdown Sheep** from Webb's and Coleman's stock. Young stock of all the above for sale. All orders promptly attended to. 294-yOM



**OAK RIDGE HERD.**

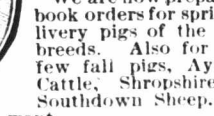
I invite inspection of my

**Victoria Swine** at Detroit Exhibition, where I shall offer for sale Young Show Sows and Young Boar fit to head show herd.

297 a-O W. H. WALWORTH, Hillsdale, Mich.

**BERKSHIRES**

-AND- LARGE YORKSHIRES



A SPECIALTY. We are now prepared to book orders for spring delivery pigs of the above breeds. Also for sale a few fall pigs, Ayrshire, Cattle, Shropshire and Southdown Sheep. Call or write for what you want.

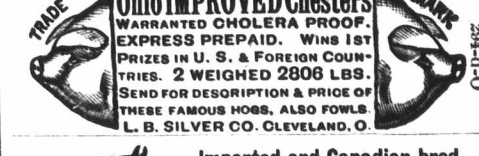
287-y W. H. & C. H. McNISH, Lyn, Ont.

**F. BONNYCASTLE,**

Breeder of Pure-bred Shorthorn Cattle, Cotswold Sheep and Berkshire Pigs. Young stock for sale. Post office and railway station, Campbellford, Ont. 297-a-OM

**SUFFOLK AND BERKSHIRE PIGS**

From imported stock, \$6 each, \$10 pair. Address F. J. Ramsey, Dunnville, Ont. 293-y-OM



Imported and Canadian bred **CLYDESDALES.**

We challenge competition for quality and smoothness in our horses. Imported Stallions and Mares of the most desirable strains. We have been most successful in the show rings with mares, colts and fillies of our breeding. Stock for sale at reasonable prices.

**PROUSE & WILLIAMSON,** Ingersoll, Ont. 297-y-OM

**GIVE YOUR ORDER FOR ONE OF CLARK'S PATENT CUTAWAY DISC HARROWS**



The Best Disc Harrow in the World. MANUFACTURED BY

**SYLVESTER BROS. MFG. CO., Lindsay, Ont.**

Manufacturers of all kinds Agricultural Implements. Send for circular. Agents wanted. 297-a-O

**BIG MONEY FOR AGENTS.**

NO RISK, NO CAPITAL REQUIRED.

An honorable and praiseworthy business without any possible chance of loss. Steady employment and control of territory. Have done business in Canada 30 years. Liberal pay to the right man, to sell our unexcelled Nursery Stock. Send for terms.

**CHASE BROS. COMPANY,** Nurserymen, COLBORNE, - ONT. 297-c-O

**Manitoba Farms.**

**GLINES & CO.** 421 MAIN ST., WINNIPEG.

**REAL ESTATE,** LOAN AND FINANCIAL AGENTS.

ESTATES MANAGED, RENTS COLLECTED AND LOANS EFFECTED.

**SPECIALTIES:** Manitoba Farms in Winnipeg District, Winnipeg City Properties.

Our twelve years experience in Land Business in Manitoba enables us to give valuable information to purchasers, who should see our Lists before buying.

REFERENCES: -Duncan MacArthur, Banker, Winnipeg; Col. D. H. McMillan, Provincial Treasurer, Winnipeg; Col. Scott, Collector of Customs, Winnipeg; Wm. Redford, Esq., Toronto. 297-a-OM

## STOCK GOSSIP.

Messrs. Graham Bros., Claremont, Ont., so well known all over America, have this season again imported twenty Clydesdales of high merit, among which are a number of very fine show horses and mares. These, added to their present stud, make a grand display.

We call the attention of our readers to the sale, advertised in another column, of Mr. R. J. Mackie, of Springdale Farm, Oshawa, Ont., who has decided to sell his entire herd of valuable Herefords. There are forty cows and heifers and thirteen bulls and bull calves, including the two noted bulls Cecil 18469 and Commodore 23945 by Cassio 11353. Mr. Mackie says Commodore has proved a fine stock-getter and he has a fine lot of calves from him; also a fine lot of heifers from his silver medal bull Cecil, which will be an acquisition to any herd. Cattle in fine breeding condition. Farmers look out for bargains, as fancy prices are not looked for. Now is the time to improve your stock. Sale on 15th October. Catalogue on application.

Messrs. Wm. Medcraft & Son, Sparta, Ont., have just made an extensive importation of Shropshire sheep and improved Yorkshire pigs. In the lot is a very fine shearing ram, bred by that noted breeder, Mr. H. J. Sheldon, Brailles House, Warwickshire, Eng., sired by Barrington, who was bred by Mrs. Barr. Some shearing ewes are from the same flock. Another lot are from Mr. R. Mansell, Preston. A ram lamb was purchased from Mr. J. Thonger, and a lot of show ewes were purchased of Mr. F. Bach, Onbury, Shropshire. Two improved Yorkshire sows were selected from Mr. R. Mansell's herd, and out of a litter from Woorsley Juna, a winner at the Royal last season, and a young boar from Mr. W. Charles, Wellburn, and sired by his boar that was a winner at the Royal last season, as well as taking seven other first prizes.

In a recent letter A. C. Hallman & Co., New Dundee, Ont., say:—Never since we engaged in the business of importing and breeding Holstein-Friesian cattle were the prospects better for a bright future than at present. Enquiries are pouring in from all parts of the Dominion, many of the enquiries come from parties that had some experience with the breed, some wanting to replace an aged bull, others adding females to start herds, whilst numbers that never had any experience with the breed are now making their first purchase to improve their dairy stock. We sold thirteen head since January 1890, which we consider very good considering the hard times, several of the sales being of more than ordinary importance, such as that to the Ontario Agricultural College, Guelph, Ont., also several bulls to head herds. Since our last report we sold a pair, bull and heifer, to John Hillgartner, Walkerton, Ont.; a bull to Benj. Bock Esq., Providence Bay, Manitoulin Islands; a yearling bull to Hugh McCaugherly, Streetsville, Ont.; yearling bull to Mr. Henry Beskett, Hamilton, Ont., and one imported cow and two-year-old heifer to John McGregor, Constance. We have sold all our surplus bulls, and might have sold more if we had had them. We have the finest lot of calves we ever had, quality and choice breeding considered. Some of the stock sold is of more than passing notice, but space prevents of giving any detailed description of them. We have not exhibited since 1887, but if all is well we intend to be at the Toronto Industrial Exhibition this fall with about a dozen head, and hope to meet our numerous friends there.

Bollert Bros. write, under date of Aug. 18th, that they have received a letter from quarantine stating that their stock is doing and looking very well. Their importation consists of seven head, consisting of three cows, two yearling heifers and two calves. Most notable among these are the imported cow Heimke and the heifer calf Aaltje Posch 4th. Messrs. Lord & Thomas, in their catalogue, say of Heimke:—She has a milk record of 65 pounds in a day this season (three-year-old), is not large, but a very promising young cow, and bids fair to make one of the very best. This opinion has been justified by Dr. Sage, of the New York Experimental Station, who made an analyses of her and Aaltje's milk in August 1889. In his report of the analyses he states that the milk of these two cows showed a better standard than the milk of any other cows of this breed he has ever analysed. Heimke has a very strong and fine bull calf at her side. We also lately bought of Jeare Allis, Isinours, Minn., the yearling bull Tritomia 2nd Charles. As the name indicates he is of the world famous Tritomia family. Tritomia is known the world over through her great performance at pail and churn and her numerous prize winnings at the large Western fairs. Tritomia 2nd is by Netherland Prince, and was as a yearling heifer considered good enough by expert judges to win sweepstake prizes against all ages, beating her famous dam. The sire of Charles is Clothilde 3rd Neptune, showing that Charles combines the blood of Tritomia, Clothilde, Netherland, Aspie and Egls. A half brother to Charles was last year sold at \$1,000 to a noted breeder. With this addition to our already fine herd we would ask, where will you find another to equal it? We also lately sold a bull of extra quality to H. L. Stilborn, Esq., Pheasant Forks, N. W. T., the first to enter that section of country.

## NOTICES.

The Belleville Business College is one of the best equipped and most modern business colleges in Canada. Mr. Boyle, the manager, is a practical business man and knows the requirements of students. Send for his catalogue.



## SHROPSHIRE SHEEP

— AND —  
COLLIE DOGS.

A choice lot of Ewes bred by Mr. David Buttar, Couper, Angus, Scotland; two Shear Ewes, imported last season, and their produce. Also Collie Dogs just imported. W. H. BEATTIE, Wilton Grove, Ont. 296-y-O.M.



## SHORTHORNS, OXFORDS.

JAMES TOLTON, Walkerton P.O.

— A large importation of —

Oxford - Down - Sheep,

FROM THE BEST ENGLISH FLOCKS.

Winners at the Royal and Oxfordshire Shows. Also a large flock of my own breeding. 297-a-OM

SHERIFF-HUTTON  
SHORTHORNS.

BULL CALVES

Sired by the Booth (Bright) Bull

ROYAL BOOTH 2nd,

From cows of some of the most famous Booth families.

Berkshire Pigs of extra quality also for sale.

297-a-OM

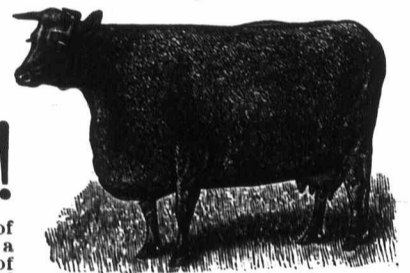
WM. LINTON, Aurora, Ont.

H. CARGILL & SON,  
CARGILL, ONT.,

BREEDERS OF SCOTCH-BRED

## Shorthorn Cattle!

With Campbell, of Kinellar, bull imp. Albert Victor, at the head of the herd; also several imp. Urrys, also bred at Kinellar, and a daughter, and grand daughters of the sweepstake cow Rose of Strathallan 2nd, and other useful sorts. A nice lot now on hand for sale. 298-y-OM



## ELMWOOD STOCK FARM.

T. D. HODGINS,

—IMPORTER AND BREEDER OF—

## Thoroughbred Race Horses, Standard-bred Trotters

—AND—  
CLEVELAND BAY and YORKSHIRE COACH HORSES.

SHROPSHIRE SHEEP 40 imported yearling ewes for sale. Also young stock of the above mentioned sorts.

297-a-OM

—ADDRESS—  
T. D. HODGINS, London, Ont.

—THE—

## MY HERD

Is composed of the choicest specimens of Herefords that money could buy in England, comprising representatives of the Lord Wilton, Grove 3rd and Cassio families.

## PARK HERD

F. A. FLEMING,

IMPORTER AND BREEDER OF

PURE-BRED

## HEREFORD CATTLE

WESTON, ONT.

## FARMERS, ATTENTION!

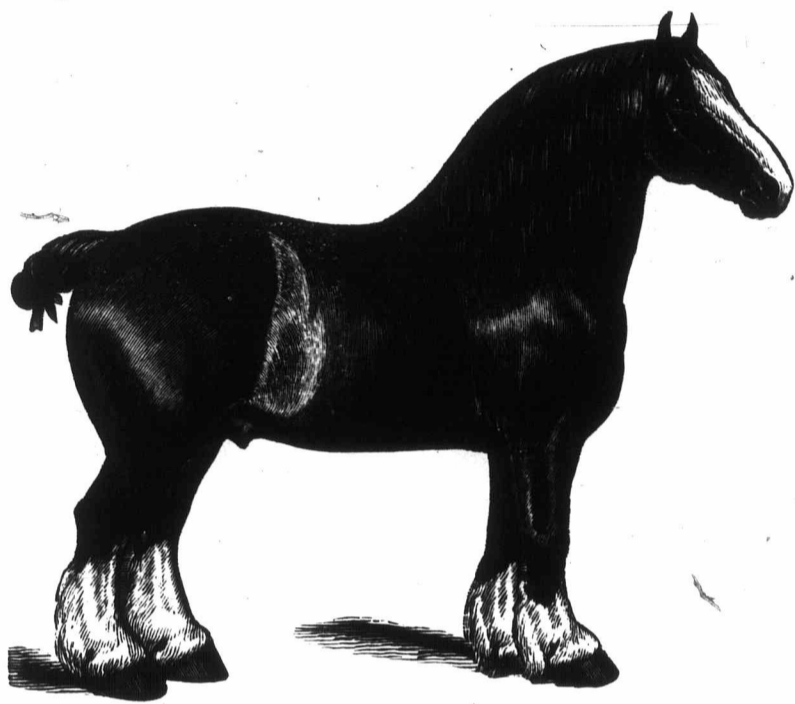
I have a grand lot of young bulls and heifers that I will sell at very reasonable figures. Times are hard and my motto is: "Live and let live."

N. B.—Do not forget to see my stock at the Industrial Fair, Toronto, and the Western Fair, London. 297 a-OM

ASK FOR FLEMING'S HEREFORDS.

— IMPORTED —

## Clydesdale Stallions and Mares for Sale.



Highest Prize Winners in the Leading Shows of Scotland and Canada, and the get of Famous Sires,

Such as Lord Erskine, Darnley, Old Times, McCammon, Prince Lawrence, Lord Hopton, Bold Magee, Sir Wyndham, Good Hope and Fireaway.

PRICES REASONABLE.

CATALOGUES FURNISHED ON APPLICATION

**ROBT. BEITH & CO., - BOWMANVILLE, ONT.**

Bowmanville is on the line of the G. T. R., 40 miles east of Toronto, and 294 west of Montreal.

297-a-OM

THE GREAT MILK AND BUTTER HERD  
— OF —

## HOLSTEIN-FRIESIAN :- CATTLE.

The accompanying illustration represents

**MERCEDES PRINCE,**

THE SIRE OF

**Mink's Mercedes Baron**

The Stock Bull of our Herd.

**MILK RECORDS**

in our herd (two-year-olds included) run from 6,000 to 13,021 lbs. in a year, and as high as 81 lbs. in a day.

**BUTTER RECORDS**

run from 13½ to 19 lbs. in a week of all that have yet been tested.

Our Herd have taken most 1st prizes at the Industrial and Provincial Exhibitions, 1888, 1889.

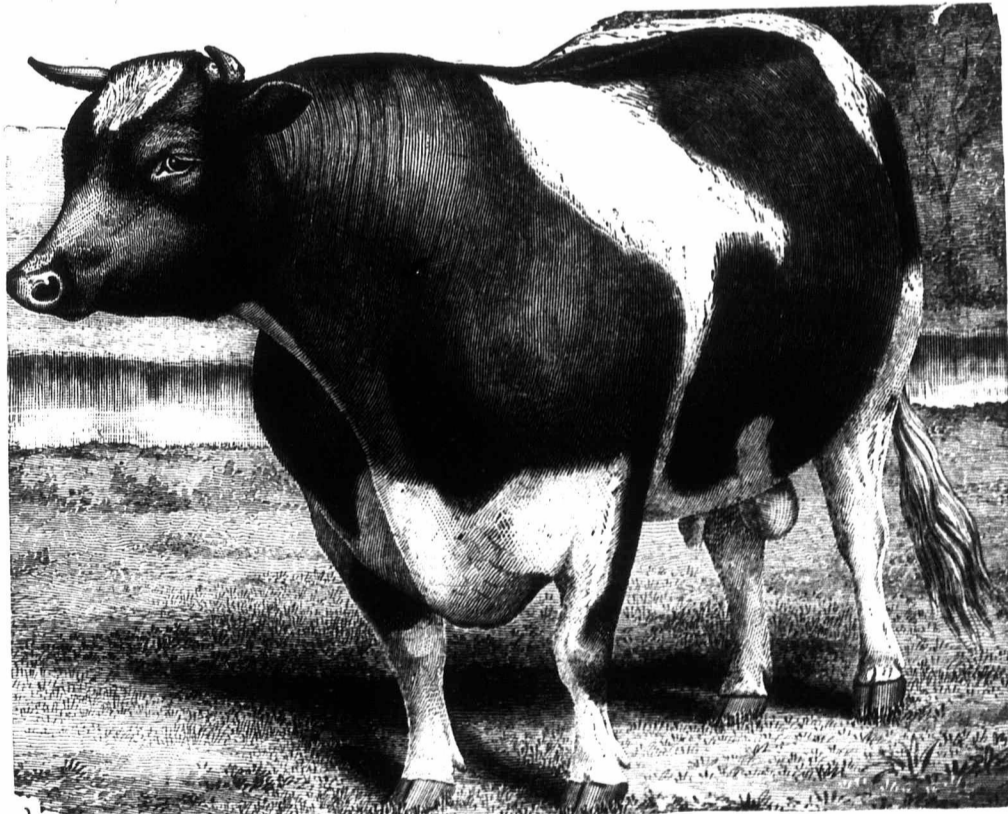
All the best families represented in our herd. Plain feeding and ordinary care is our motto. Prices right and within range of all farmers. Over 75 head in our herd which have been carefully selected and bred for butter and milk.

Catalogues free and visitors always welcome.

CREDIT VALLEY STOCK FARM.

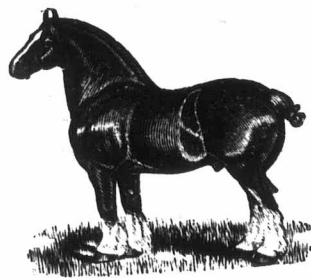
**SMITH BROS., - Churchville, Ont.**

(Peel Co.)



Mercedes Prince 2150, H. F. H. B.

297-a-OM



SHIRES AND CLYDES.

Our stock horse "King of the Castle" (3171) 71, has taken the champion prize at Toronto Industrial Fair for the last three years, also 1st for Shire stallion and 5 of his get at Buffalo last year. We would sell him as well as a choice lot of colts and fillies got by him out of prize winning mares. Also a few graded Clydesdale colts and fillies.

**ROSEDALE FARM**

HIGHFIELD P. O., MALTON, ONT.

Jas. Gardhouse & Son,

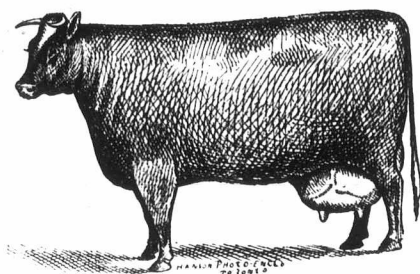
—BREEDERS AND IMPORTERS OF—

Shire and Clyde Horses

—AND—

SHORTHORN CATTLE.

Letters—Highfield P. O.  
Station and Telegrams—Malton.  
First-class stock at rock bottom prices.  
Write or call. 297-a



SHORTHORNS.

The last time exhibited, in 1887, our herd took the champion prize at Toronto Industrial Fair. For the last 20 years we have been using imported bulls. Our stock bull now is "Albert," bred by S. Campbell, Kinellar. We have some grand bulls and heifers got by him and by the imported Duthie bull Eclipse, for sale at very low figures.

THE GRANGE FARM  
Springfield-on-the-Credit, Ontario.

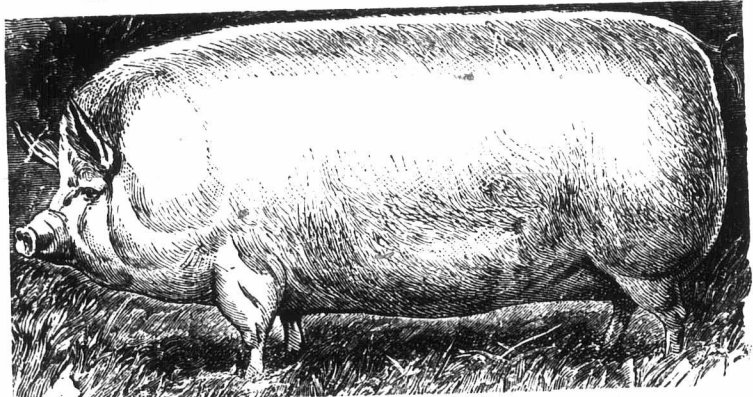
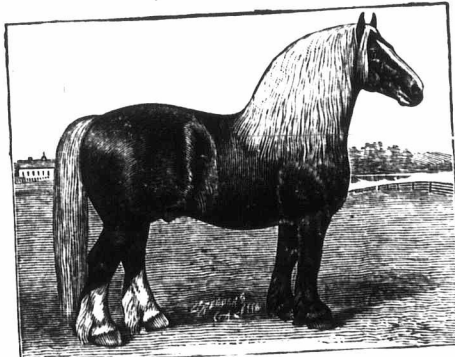
**ORMSBY & CHAPMAN**

Breeders and Importers of  
Shires, Clydesdales & Hackneys,  
Shropshire Sheep

—AND—

Improved Large Yorkshire Pigs.

Letters:  
Springfield-on-the-Credit.  
Telegrams:  
Streetsville.  
Stations:  
Streetsville, on C. P. R.  
Port Credit, on G. T. R.



SHIRES, CLYDES AND HACKNEYS

IMPROVED LARGE YORKSHIRES.

Imp. Stallions & Mares for Sale.

Having added a few choice Clydesdales and Hackneys to our stud, we beg to draw the attention of farmers and horsemen to the following facts:  
We have the largest stud of Shires in Ontario.  
We have taken more prizes on Shires than any other importers, at the leading shows in Ontario, in 1888 and 1889.  
Our stock comprises the get of such noted sires as Big Ben, Blythe Echo, Royal George II., Carleton, Comet, etc.  
We sell at prices that defy competition. We are enabled to do this as we have a partner resident in England.  
None of our horses are fattened or pampered for show purposes. Catalogue on application. Visitors welcome.

Our Mr. Chapman has just arrived from England with a choice selection of pigs, from the best herds in England, boars and sows, sixteen in number.  
As our herd now numbers over seventy head we are prepared to supply imported and home-bred pigs of all ages.  
No breeding pigs fattened for show purposes.

**DO NOT FORGET.**

The Largest and Oldest Established Herd in AMERICA.  
\$1,950 worth sold in 1889.

**OUR MOTTO:**

A good pig, with a straight pedigree, at a fair price.

**OUR TERMS:**

Satisfaction guaranteed or money refunded.

Write for Price List.

297-a-OM



Dorset Horned Sheep.

Our Dorsets are all imported from the best flocks in England. We spare no expense in making our selections as our principle is

"Breed only to the Best."

ADDRESS—  
**JOHN TAZEWELL,**

Indian Village Farm, PORT CREDIT, ONT.,

**TAZEWELL & HECTOR**

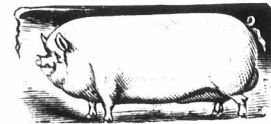
—BREEDERS AND IMPORTERS OF—

DORSET HORNED SHEEP

—AND—

Improved Yorkshire Pigs.

NO STOCK FATTENED FOR SHOW



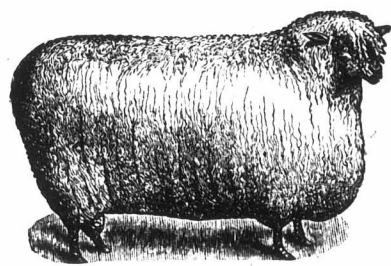
Improved Yorkshire Pigs.

Our Yorkshires are bred from the best strains of imported stock, representing such herds as those of Sanders Spencer, C. E. Duckering and other noted English breeders.

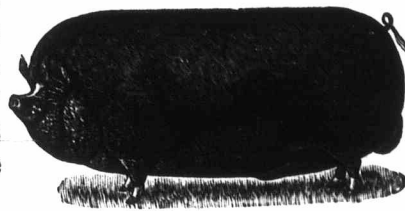
OR **THOMAS HECTOR,**

The Cottage, SPRINGFIELD-ON-THE-CREDIT, ONT.

**OUR SPECIALTIES:**  
**Cotswold Sheep — Berkshire Hogs**  
 1855-1890. 1866-1890.



We import the best. We breed the best. We invite inspection. We ship to order and guarantee satisfaction. We have special rates by express. Young stock always for sale. A grand lot of ram lambs and young boars now in stock, imported and home-bred. Prices reasonable for breeding and quality. Come and see, or address,



J. C. SNELL, - - - EDMONTON, ONT.

297-a-OM

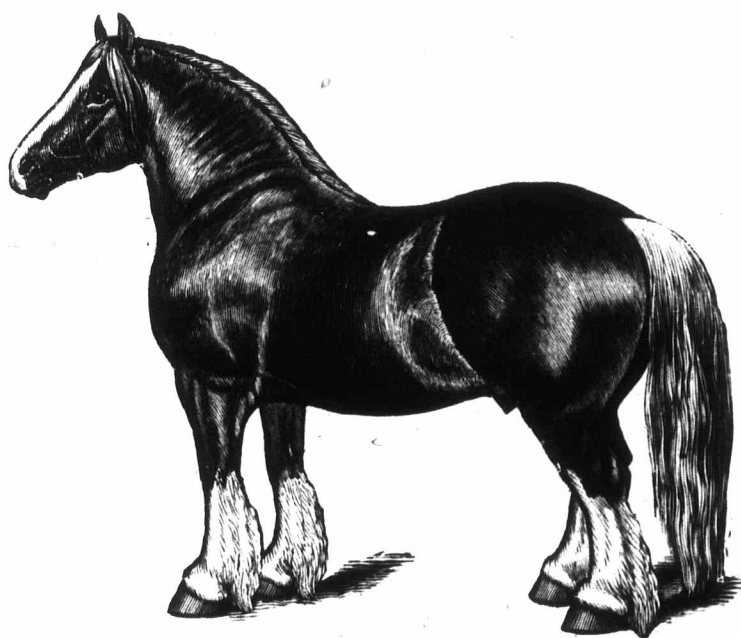
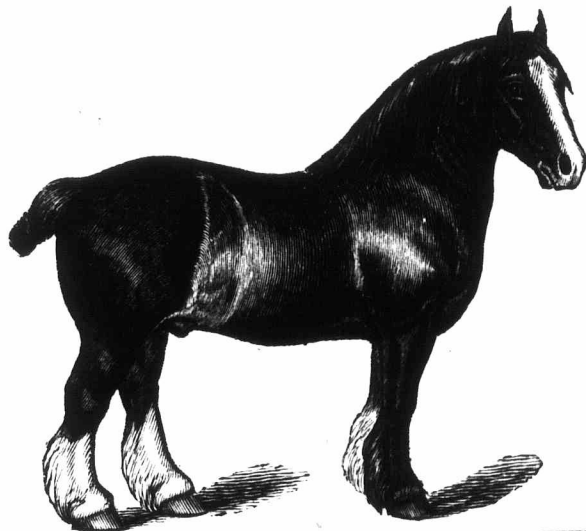
**D. & O. SORBY, GUELPH, ONT.**

—IN ADDITION TO OUR ALREADY LARGE STUD, OUR NEW IMPORTATION OF—

**=CLYDESDALES=**  
 HAS ARRIVED.

Colts and Fillies by such popular sires as Lord Erskine, Flashwood, Darnley Hero, Old Times and Macnab.

Our Farm is 3 1/2 miles from Guelph.



**W. H. MILLMAN,**

"THE FIRS" STOCK FARM, WOODSTOCK, ONT., CAN.

CABLE ADDRESS: Firs, Woodstock, Ont. TOWN OFFICE: Two doors south of P.O. Telephone 138. Farm 1/2 mile east of Woodstock.

— IMPORTER OF —

**SHIRES, CLYDESDALES, HACKNEYS, COACHERS, THOROUGHBREDS, PONIES, ETC., ETC., ETC.**

Exporter of Fine Carriage and Saddle Horses.

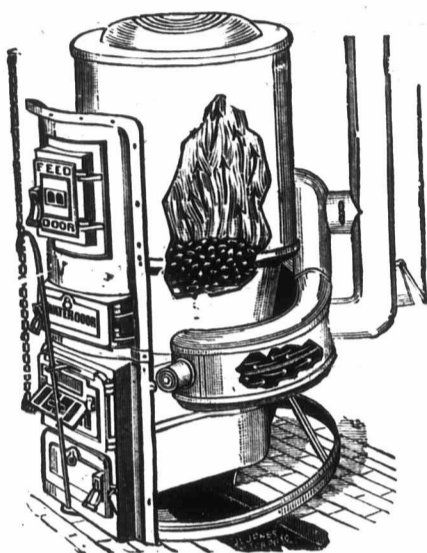
The following are what I have on hand at present, and all are for sale, and no fancy prices asked. Time will be given for part payment on any of them when required, if security is satisfactory:—

DANDIE DINMONT 452, imported English thoroughbred.  
 GRONE ACCUMULATOR 1340, imported English Coach Horse.  
 WALKER SPRAGUE, Record 2.34 1/4, Trial 2.2 3/4, Sire Gov. Sprague, Dam by Capt. Walker, 2.27.  
 THE DUDE, Sired by Red Cloud. Very handsome three-year-old.  
 LORD MAN 2163, Hackney Cob Pony, 12 3/4 hands high. The handsomest and greatest prize winner in America.  
 WARPETH, Five-year-old Clydesdale.  
 THE FIRS PRINCE, Three-years-old. Fleetwood King, Two-years-old. Shire colts.  
 Two imported Shire mares, great prize winners. Four standard bred mares and some foals. A number of Shetland and other ponies, mostly stallions and prize winners. A number of Carriage and Saddle horses always on hand.  
 For pedigree and full particulars, drop a postal card. Will meet any trains on receipt of wire or letter.

297-a-OM

# CLARE BROS. & CO.

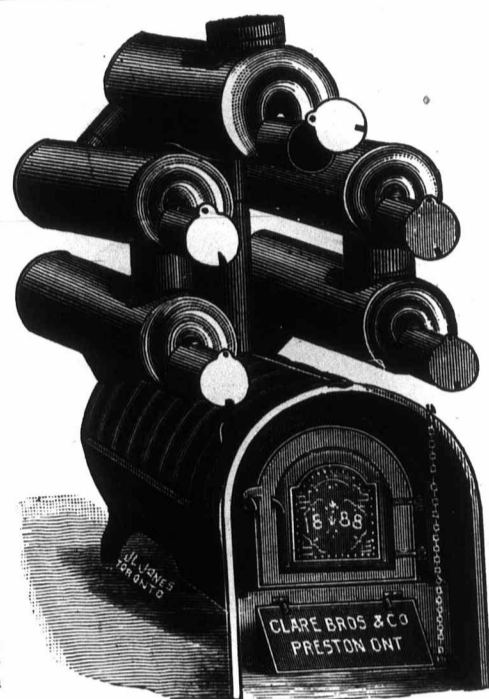
PRESTON, ONT.,



Manufacturers of a complete line of  
**COAL AND WOOD  
 HOT AIR FURNACES  
 REGISTERS,  
 HOT WATER BOILERS AND COMBINATION HEATERS.**

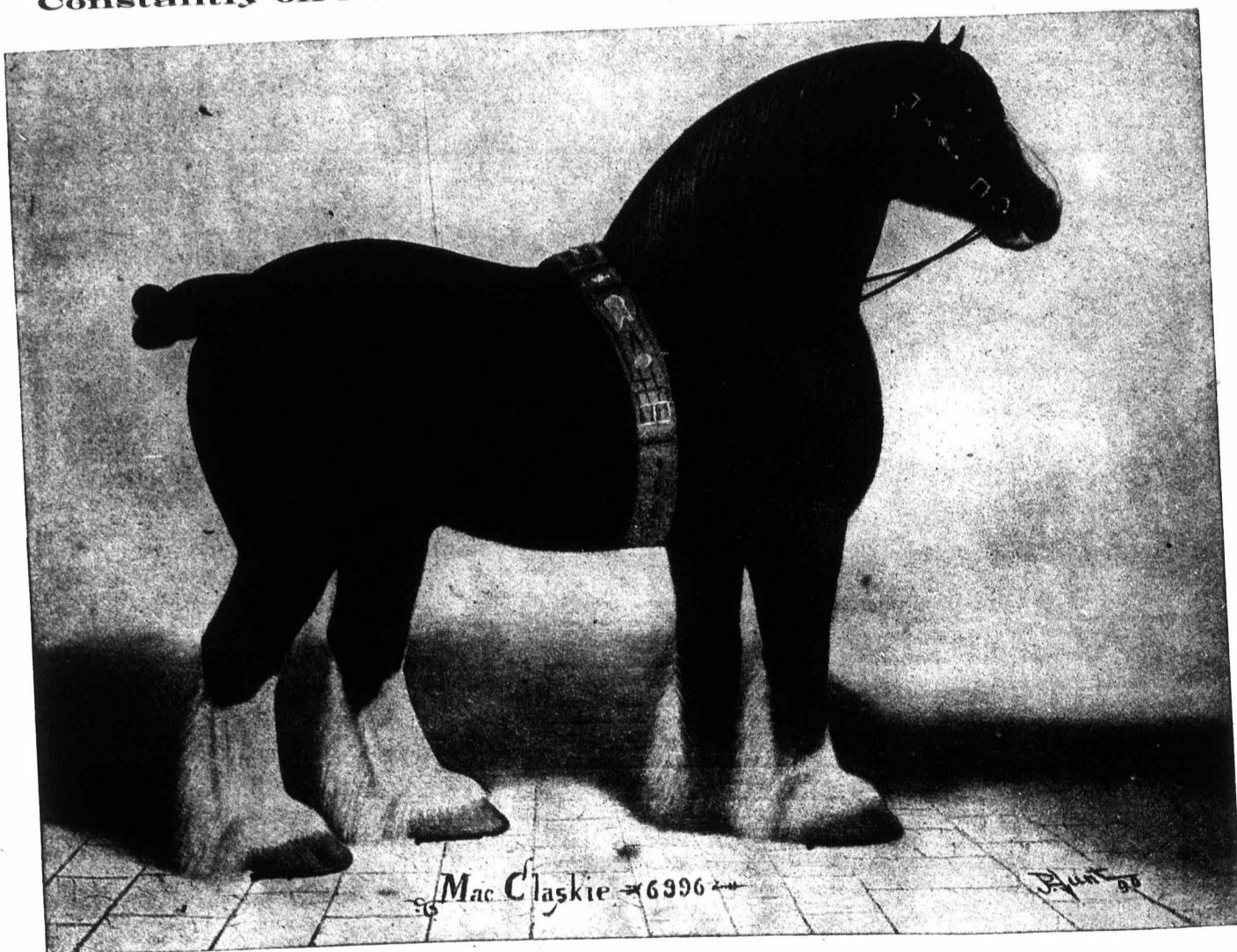
We also manufacture a full line of  
**RANGES, STOVES,  
 Hollow-Ware, Etc.**

Our "Hilborn" Wood Furnace stands without a rival,  
 and has won an enviable reputation throughout the country.  
 Please write us for our Illustrated Catalogue and learn  
 the merits of our Furnaces before placing your order.  
 297-a-OM



## IMPORTED AND REGISTERED CLYDESDALE & HACKNEY STALLIONS & MARES

Constantly on hand, and for Sale at Reasonable Terms.



Our last importations, which arrived Sept. 1st, 1890, comprises a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (1487), Darnley (222), and Prince of Wales (679). Also a few choice SHETLAND PONIES. Correspondence solicited, and visitors always welcome.

**GRAHAM BROTHERS, Claremont, Ont.**  
 Twenty-five miles east of Toronto, on the C. P. R. 297-a-OM



**Dorset Horned Sheep.**

My sheep are bred from pure imported stock, selected from the best flocks in England.  
Write for prices.

**SHIRES & GLYDES**

DORSET HORNED SHEEP

—AND—

IMPROVED LARGE YORKSHIRE PIGS.

**E. M. JARVIS**

ONTARIO LODGE,  
CLARKSON P. O., ONTARIO.

**Improved Large Yorkshires.**

I make a specialty of Improved Yorkshires. I have a grand lot of breeding sows and my herd is headed by the imported boars Holywell Physician (38) and Jumbo (62).

STATION—Clarkson, on G. T. R. TELEGRAMS—Oakville. 297-a-0

**MAPLE SHADE HERDS AND FLOCKS.**



THE OLDEST AND LARGEST HERD OF CRUICKSHANK SHORTHORNS IN CANADA.

Do you need a fine Shorthorn bull to head your herd, or a thick, fleshy bull of the genuine Cruickshank type as a prepotent steer getter? You can be supplied at the most reasonable rates at Maple Shade. And if, in future, you wish to breed your own bulls, choice cows and heifers may be had of the same sorts. The Maple Shade flock of Shropshire sheep are second to none. It is founded on the best blood in England, and has annually furnished first prize winners at all the leading exhibitions. No animals will be entered for competition this year. Shearing rams and ewes supplied on shortest notice. Seventy lambs (rams and ewes) well grown and of choicest quality. Inspection will pay you. Come or write at once to

**JOHN DRYDEN, Brooklin, Ont.**

297-p-OM

**JERSEY :- CATTLE**

In addition to my herd of choice A. J. C. C. Jerseys, I have a number of Bulls, Cows and Heifers, registered in the A. J. H. B., which I will sell at very reasonable figures.

**CLAIR HOUSE VINEYARDS,**

Cooksville, Ontario.

**B. W. MURRAY,**

—BREEDER OF—

**THOROUGHbred JERSEY CATTLE**

—AND MANUFACTURER OF—

Pure Native Wine.

**PURE NATIVE WINE**

Having a vineyard of 30 acres, with large wine cellars, etc., I can supply NATIVE WINE, guaranteed pure and unadulterated, in large or small quantities.

297-a-OM

**DR. CARVER 7369, Rideau Stock Farm PALM LEAF 7634,**  
 two-year-old record 2.40. KINGSTON, ONT.  
 By New York Dictator, (trial) Standard-bred Trotting Horses,  
 2.25 1/2. Registered Holstein (H.F.H.B.)  
 and Jersey Cattle (A.J.C.C.)  
 Dam—Kitty Morgan. YOUNG STOCK FOR SALE.  
 Dam of Nannie Talbot, 2.29 1/4. E. A. Folger, Box 579. Send for catalogue.  
 283-v-OM

Graduated Prices. Recently Furnished.  
**LELAND HOUSE,**  
 W. D. DOUGLAS & CO., Proprietors.  
 The Finest Hotel in the Northwest.  
 Corner City Hall Square, Main & Albert Streets,  
 CITY HALL SQUARE,  
 WINNIPEG, MAN.  
 297-y-OM

## 500 SHROPSHIRE

Imported and Home-bred.

We have lately increased, by a large importation, what was already the largest flock in Canada, and can now furnish anything required at most reasonable prices.

**SHOW RAMS, SHOW EWES, BREEDING RAMS, BREEDING EWES, and Rams for Crossing**  
 Cheaper than from any other Flock.

CLYDESDALES and SHORTHORNS of the best types always on hand. Visitors welcome. Correspondence solicited.  
**JOHN MILLER & SONS, Brougham, Ont.**  
 297-a-OM



.... Eighth Semi-Annual Auction Sale ....

## Holstein-Friesian Cattle

BY THE WYTON STOCK BREEDERS' ASSN., ON FRIDAY, OCT. 3rd, 1890, AT WYTON, ONT.

—THERE WILL BE OFFERED FOR SALE—  
**35 HEAD OF THORO'BRED CALVES, HEIFERS, COWS AND BULLS**  
 ALL ANIMALS GUARANTEED.

TERMS—25 per cent. down, balance three and six months' notes.

Wyton is on the St. Mary's Branch of the Grand Trunk Railway. Trains arrive at Wyton from London at 8 a.m. and 2.30 p.m. From St. Mary's and Stratford at 11 a.m. Trains leave Wyton for London at 5.30 p.m. For St. Mary's and Stratford at 6.30 p.m.

Our own herd can be seen upon the day of sale.

297-a-0

## ONTARIO Agricultural :- College WILL RE-OPEN ON THE 1st OCTOBER

This Institution furnishes, at very small cost, just the kind of education needed by young men on the farm—not Latin, nor Greek, nor any of those branches which are specially useful only to young men preparing for the professions, but

### I.—AGRICULTURE, LIVE STOCK, DAIRYING.

Full courses of lectures with practical instruction in all these branches. Also Horticulture.

### II.—NATURAL SCIENCE.

Chemistry, Geology, Botany, Study of Insects, &c.

### III.—VETERINARY SCIENCE.

Study of the Structure, Diseases and Treatment of Cattle, Sheep, Horses, &c.

### IV.—ENGLISH.

Grammar, Composition, and such practical instruction in English as all farmers need.

### V.—MATHEMATICS AND BOOK-KEEPING.

Arithmetic, Farm Book-keeping, Mensuration, Mechanics and Road-making.

For Circular, giving full information as to Cost, Terms of Admission, &c., apply to

**JAMES MILLS, M.A., President.**

Guelph, August, 1890.

297-a-0

### Annual Sale of Live Stock and Seed Grain at the Experimental Farm, Guelph.

This sale will be held on the Farm on TUESDAY, OCTOBER 7th, 1890, when the following Pure-bred Stock will be sold by public auction, viz.:

**HORSES.**—1 Clydesdale Filly, 1 Clydesdale foal (pedigreed).  
**CATTLE.**—SHORTHORNS—1 Bull Calf, 2 Heifer Calves. HEREFORDS—1 Bull Calf, 1 Heifer Calf. ABERDEEN-ANGUS POLLS—2 Bull Calves. GALLO-  
 WAYS—1 Heifer Calf. DEVONS—1 Aged Bull (imp.), 1 Heifer Calf. HOL-  
 STEINS—1 Aged Bull (imp.), 1 Aged Cow (imp.), 1 Bull Calf. AYRSHIRE—  
 1 Aged Bull (imp.), 1 Bull Calf.  
**SHEEP.**—SHROPSHIRE DOWNS—3 Shearling Ewes. OXFORD-DOWNS—4  
 Shearling Ewes, 1 Shearling Ram. SOUTH-DOWNS—1 Shearling Ewe. LEICES-  
 TERS—2 Shearling Rams, 1 Shearling Ewe.  
**PIGS.**—IMPROVED YORKSHIRES—12 Young Boars, 17 Young Sows, nearly  
 all imported in dams. BERKSHIRES—1 two-year-old Boar, 1 Aged Sow with  
 Pig, 7 young Boars, 11 young Sows.

There will also be sold the same day Seed Grains and Potatoes, grown upon the Farm, of the following varieties:—

**SPRING WHEAT.**—Red Fern, Rio Grande.  
**BARLEY.**—Carter's Prize Prolific (England), Cheyne (Germany), Oder-  
 brucher (Germany), Phoenix von Shirlare (Germany), Probesteier (Germany),  
 Besleitorn (Germany), Italian Rice (Germany), Scotch Improved.  
**OATS.**—Vick's American Banner, Bavarian, White Bonanza, Early Calder,  
 New Zealand, Oderbrucher (Germany), Danebrog (Germany), Improved Bes-  
 leitoun (Germany), Probesteies (Germany), Waterloo (Germany), White  
 Abundance (France), Poland White (France), Black Etampes (France), Fly-  
 ing Scotchman (England), White Tartarian (Scotland and England).

**PEAS.**—The Mummy.  
**POTATOES.**—Early Puritan, Crown Jewel, Rural No. 2, Early Sunrise,  
 Holton's Seedling, Early Ohio and several other varieties.

The above grains will be put up in bags in lots of from five pounds to two bushels and carefully labelled, with the price of each lot on the label. They will be exposed for sale in the experimental barn from 10 a. m. to 4 p. m., on the day of the sale, and competent persons will be in attendance to give all necessary information.

LUNCH will be given on the grounds at 12 o'clock noon, and the sale of live stock will commence at 1 p. m.

TERMS.—Twelve months credit will be given to parties who furnish approved notes on all sum of Twenty dollars and over; under that amount the terms are cash. A discount of six per cent. will be allowed for cash on all sums of twenty dollars and over.

A rebate of freight will be given on sales of live stock to the extent of one-third the amount of the freight when carried more than 100 miles, and to the extent of one-half the amount of the freight when carried more than 200 miles.

Arrangements have been made with the Canadian Pacific Railway for reduced rates of travel to parties attending the sale, and it is expected that similar arrangements will be made with the G. T. R., of which full particulars will be given in the catalogue.

Catalogues mailed free after September 16th. These will furnish all necessary particulars regarding the pedigrees of the stock, and the disposal of the grains.

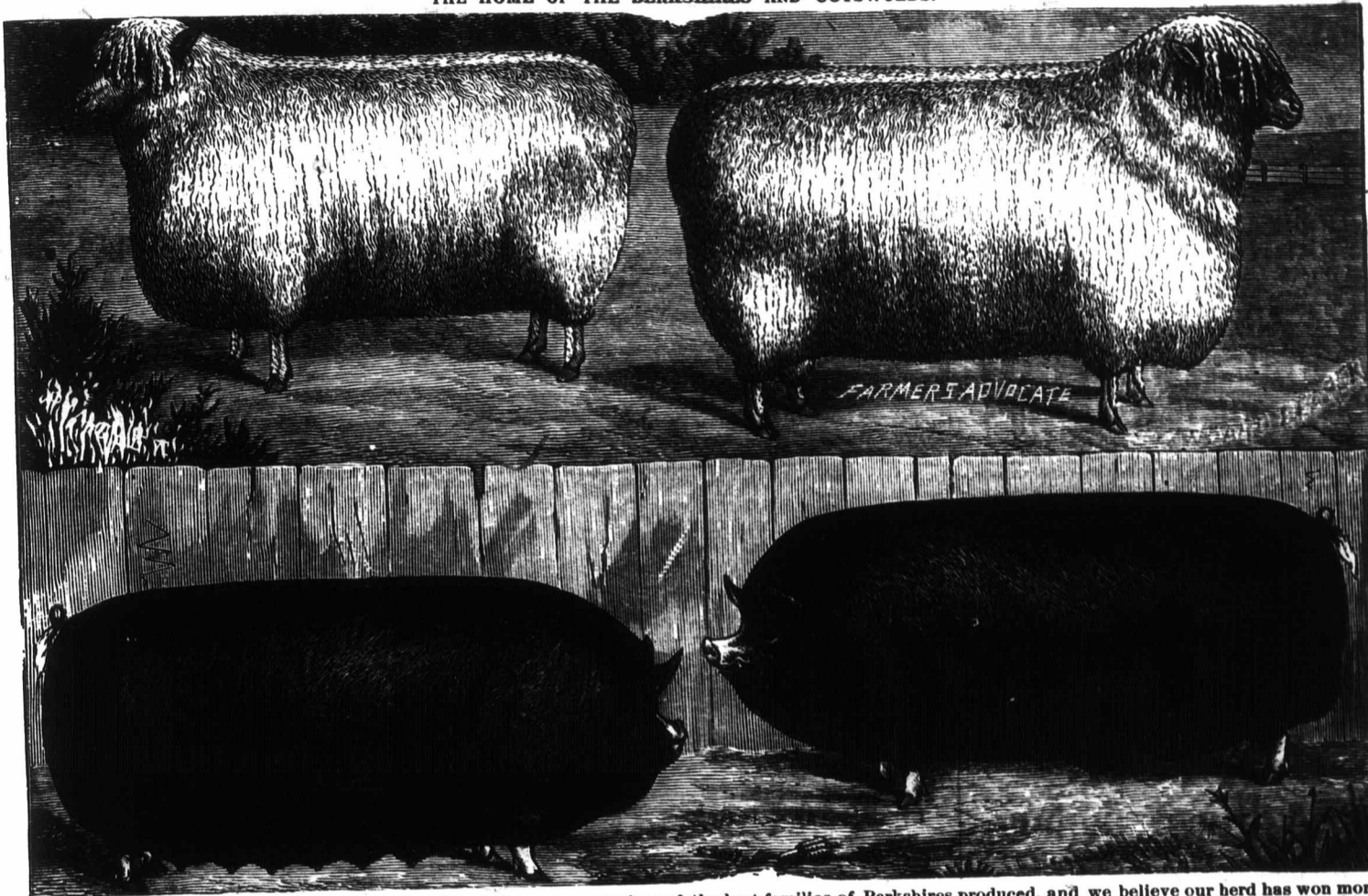
**JOSEPH HEFFERMAN, Auctioneer.**

**THOMAS SHAW.**

An extensive sale of live stock, consisting of Hereford cattle, Cots-wold sheep, etc., will be held by W. F. Stone, of Guelph, on the 8th and 9th, of the same month.  
 297-a-0

WILLOW LODGE STOCK FARM.

THE HOME OF THE BERKSHIRES AND COTSWOLDS.



"BERKSHIRES"—Our herd contains representatives of the best families of Berkshires produced, and we believe our herd has won more prizes at the leading fairs than any other in the country. Stock for sale at all times. "COTSWOLDS"—Our flock of Cotswolds we think is second to none in Canada, as our record at the leading fairs will show. We have made fresh importations from England almost every year of the very best we could find for sale. We have always used in our flock first-class imported rams. Have now for sale 60 ram lambs, large and good; also, yearling rams, yearling ewes and ewe lambs. Will exhibit Cotswolds at Detroit, Cotswolds and Berkshires at Toronto and London.

J. G. SNELL & BRO., EDMONTON, ONT. (Brampton and Edmonton Stations). 297-a-OM

MANITOBA THE GREAT GRAIN AND CATTLE PROVINCE
—HAS WITHIN ITS BORDERS—
HOMES FOR ALL!

Industrious men and women. Manitoba is making rapid progress as shown by the fact that
In 1887 there were under crop, 663,764 acres.
" 1890 " " " 1,082,792 "

Increase, 419,028

These figures are more eloquent than words, and indicate clearly the wonderful development taking place. NOT A BOOM, but certain and healthy growth.

HORSES, CATTLE AND SHEEP

Thrive wonderfully on the nutritious grasses of the prairie, and, in fact, MIXED FARMING is now extensively engaged in all over the Province. There are still

FREE HOMESTEADS in some parts of Manitoba.

CHEAP RAILROAD LANDS—\$3.00 to \$10.00 per acre. Ten years given to pay for them.

IMPROVED FARMS, from private individuals, at low prices, and on easy terms of payment.

NOW IS THE TIME to obtain a home in this wonderful fertile Province. Population is moving in, and land is annually increasing in value. In nearly every part of Manitoba there are now

GOOD MARKETS, RAILROADS, CHURCHES AND SCHOOLS, AND MOST OF THE COMFORTS OF AN OLD SETTLED COUNTRY.

Investment of Capital.

There are very good openings in many parts for the investment of capital in manufactories and other commercial enterprises.

For the latest information, new books, maps, etc., (all free) write to

HON. THOS. GREENWAY,

Minister of Agriculture and Immigration, WINNIPEG, MANITOBA.

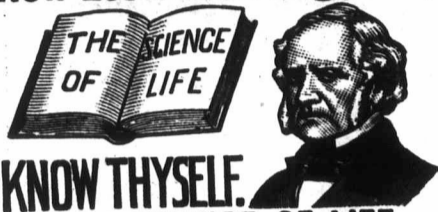
Or to

A. J. McMILLAN,

Manitoba Government Office, 30 York St., TORONTO.

297-11-O

**THE GLORY OF MAN  
STRENGTH VITALITY!**  
How Lost! How Regained,



**KNOW THYSELF.**  
THE SCIENCE OF LIFE  
A Scientific and Standard Popular Medical Treatise on the Errors of Youth, Premature Decline, Nervous and Physical Debility, Impurities of the Blood.

**EXHAUSTED VITALITY  
AND THE  
UNTOLD MISERIES**

Resulting from Folly, Vice, Ignorance, Excesses or Overtaxation, Enervating and unfitting the victim for Work, Business, the Married or Social Relation. Avoid unskillful pretenders. Possess this great work. It contains 800 pages, royal 8vo. Beautiful binding, embossed, full gilt. Price only \$1.00 by mail, postpaid, concealed in plain wrapper. Illustrative Prospectus Free, if you apply now. The distinguished author, Wm. H. Parker, M. D., received the GOLD AND JEWELLED MEDAL from the National Medical Association for this PRIZE ESSAY on NERVOUS and PHYSICAL DEBILITY. Dr. Parker and a corps of Assistant Physicians may be consulted, confidentially, by mail or in person, at the office of THE PEABODY MEDICAL INSTITUTE, No. 4 Bulfinch St., Boston, Mass., to whom all orders for books or letters for advice should be directed as above.

**ONTARIO  
Agricultural College**  
WILL RE-OPEN OCTOBER 1st.

Full Courses of Lectures on  
AGRICULTURE, LIVE STOCK, DAIRYING,  
VETERINARY SCIENCE, CHEMISTRY,  
and other branches needed by young men on the farm. For circular giving information as to cost, terms of admission, etc., apply to

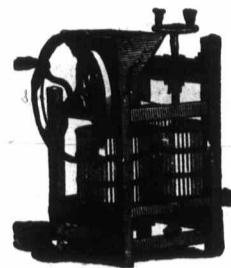
**JAMES MILLS, M.A., President.**  
Guelph, July, 1890. 296-b-OM

**THE FOOS MANUFACTURING Co.**  
SEND FOR ILLUSTRATED CATALOGUE.  
REVERSIBLE SELF SHARPENING GRINDING PLATES.  
SAFETY BOTTOM AND IN BREAKER TO PREVENT ACCIDENTS.  
THE BEST MILL ON EARTH.  
TRIAL, FULLY GUARANTEED.  
SPRINGFIELD, OHIO.

**GRATEFUL-COMFORTING  
EPPS'S COCOA  
BREAKFAST.**

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—Civil Service Gazette.  
Made simply with boiling water or milk. Sold only in packets by Grocers, labeled thus:  
JAMES EPPS & CO., Homoeopathic Chemists,  
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SPECIALTIES—  
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MECHANICAL  
**WOOD & GREGG**  
TORONTO ENGRAVING CO.  
BRIGDEN MANGER  
REMOVED TO  
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TORONTO



**CIDER & WINE MILLS  
AND PRESSES.**  
(SELLS' PATENT.)  
Best and cheapest in the market.  
AGENTS WANTED.  
Write for circulars and terms. Address  
**L. SELLS & CO.,**  
TORONTO, ONT.  
296-b-0

**J. BARTON'S PATENT CHAMPION STUMP AND GRUB EXTRACTOR,**



Two men and one horse only are required to operate this machine. Will pull green grubs and stumps ranging from three to twenty-four inches in diameter, and in many cases much larger, and any size with a little help. County rights for sale. The derrick as shown in cut is used only when very large stumps are to be removed.  
26-c-0 **J. BARTON, P.O. Box 345, Toronto, Can.**

**Dairymen, Attention!**



**Thomson's Milk Aerator!**

PATENTED 1888.  
**EVERY CHEESEMAKER**  
Knows the necessity of the thorough aeration of milk. This Aerator works automatically, strains and aerates the milk on the milk stand or in the wagon or any other place required. When milking is finished the milk is in the finest condition for making a first-class article of cheese. Endorsed by the best dairymen in the Dominion. All information, with circulars, testimonials, etc., sent free on application to

**ALEX. THOMSON, General Agent, Caintown, Ont.**  
Right for sale for Manitoba and the Northwest. Agents wanted in every county in the Dominion. 294-d-OM

**MICA ROOFING**

**USE Mica Roofing**  
On all your Buildings.  
It is Cheaper than Shingles.  
Water Proof and Fire Proof.

**USE MICA PAINT**  
To Repair Leaky Roofs.  
Shingle, Iron or Tin Roofs painted with it will last twice as long.

**RAPIDLY TAKING THE PLACE OF SHINGLES.**

Is put up in rolls of 108 square feet each, 36 feet long by 3 feet wide, and costs 24c. per square foot, thus affording a light, durable and inexpensive roofing suitable for buildings of every description, and can be laid by ordinary workmen. One man will lay ten square in a day, which brings the cost of Mica Roofing about 75c. per square cheaper than shingles. Special terms to dealers who buy our Mica Roofing to sell again. Orders and correspondence answered promptly.

**HAMILTON MICA ROOFING CO.**

282-f-OM

Office—108 James Street North, HAMILTON, ONT



GEORGE WHITE & SONS,  
FOREST CITY MACHINE WORKS, LONDON, ONT.

SOLE MANUFACTURERS OF THE  
Genuine White Threshing Engine,

For wood or straw. Our Straw-burning Engine has given thorough satisfaction. It is the only straw-burner with back water space in boiler. Light and Heavy Traction Engines, Special 16, 20 and 25 H. P. Semi-Portable Engines, strong and compact for saw mill purposes, same style as our Threshing Engines.

We can supply at any time Engines and Boilers, from 5 to 30 H. P., suitable for brick and tile yards, cheese factories, cider mills, saw mills, planing mills, etc.

SEE OUR NEW IRON SEPARATOR

LICENSED BY INSURANCE COMPANIES.

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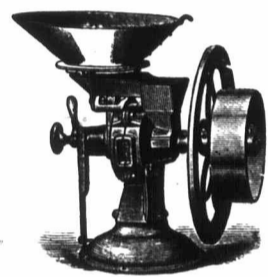
GET THE BEST.

THE PORT PERRY

### Improved Grinding Mill

With Latest Improvements, is acknowledged to be superior to all others.

Mills sent on trial to responsible parties.



Address **PAXTON, TATE & CO.,** - 297-b-0 - **PORT PERRY, ONT.**

## HAWKEYE GRUB MACHINE. STUMP



The accompanying cut is from a photograph showing this machine at work. This most complete and powerful machine is rapidly coming into use wherever there is land to clear and its merits are known. It works on either standing timber or stumps. Will pull an ordinary grub in one and one-half minutes. Makes a clean sweep of 2 acres at a sitting. A man, a boy and a horse can operate it. No heavy chains or rods to handle, steel wire rope being used instead. The crop on a few acres the first year will pay for the machine, and have the machine and land clear, left. Farmers having timber land to clear cannot afford to be without one, much less to continue to pay taxes on rich land which yields them nothing, while they exhaust their cleared land by constant crops. In timber over six inches in diameter this machine will grub faster than six men can trim, and pile the brush. It will pay those interested in clearing land to investigate the merits of this machine. For handsomely illustrated catalogue, giving price, terms, testimonials and general information, address a postal card to the manufacturers. **JAMES WILNE & SON, Scotch Grove, Ia.**

W.C.B. 242

## OUR PLOWS TAKE the LEAD



Wherever introduced. We manufacture a complete assortment, comprising Two and Three Furrow Gangs, Riding Plows and Single Walking Plows of all kinds. Our No. 4 Sod Plow and No. 21 General Purpose Plow are unequalled; the Mouldboards are made of the best steel, highly tempered. Hand and Horse-power Feed Cutters, having all the latest improvements, with or without carriers. Horse Powers, Fanning Mills, Root Pulpers and Slicers, Agricultural Furnaces, &c., &c.

**THE GOWDY MANUFACTURING CO., Guelph, Ont.**

297-a-0M

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AND OTHERS HAVING LEISURE DURING THE SUMMER WILL FIND

### Belleville Business College

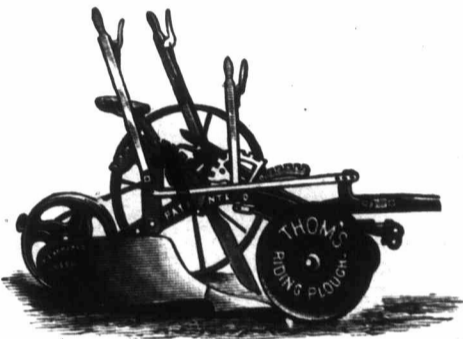
A good place at which to spend the time.

SUBJECTS: - Bookkeeping, Penmanship, Arithmetic, Correspondence, Business Forms, Shorthand and Typewriting. Terms moderate.

This is the leading institution of the kind in Canada.

Box 1021, Belleville, Ont.

### The Watford Riding Plow.



PATENTED.

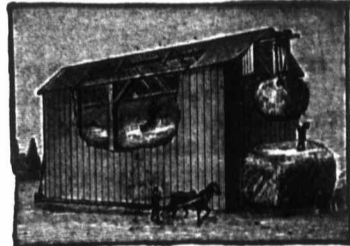
The greatest improvement in Sulky Plows ever seen. We manufacture the Standard Walking Plows of the Dominion, Nos 4, 5, 7, 8 and 30; also the strongest and best working Twin Gang on the market. Farmers, ask for the Famous Watford Plows. None genuine unless stamped "Watford" on the handle, and "Famous" on the land side.

**THOM'S IMPLEMENT WORKS, Watford, Ont.**

Established 1875. Send for circulars. Agents wanted in unoccupied territory. 292-1

### BUCHANAN'S (Malleable Improved) PITCHING MACHINE

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



### The Common-Sense Sheaf-Lifter

Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

### RESPONSIBLE AGENTS WANTED

Circulars, Prices and Terms on application to **M. T. BUCHANAN,** Ingersoll.

297-

**THRASHING MACHINES & HORSE POWERS**

(ONE, TWO AND THREE-HORSE.)

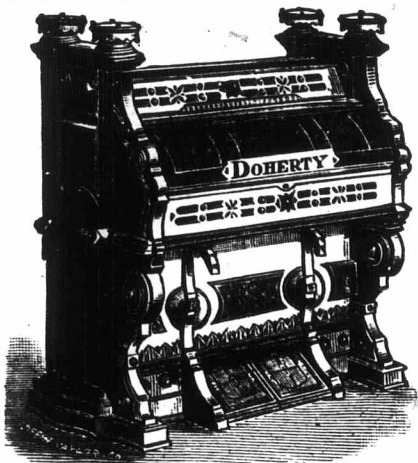


Guaranteed to be "the best" Tread Horse-power Threshing Machines made, and takes the lead wherever introduced. Agents wanted.

**JOHN LARMONTH & CO., Manufacturers,**  
Point St. Charles, MONTREAL, QUE.  
TIPPET, BURDIT & Co., Agents, St. John, N. B.;  
E. G. PRIOR, Agent, Victoria, B. C. 293-f-OM



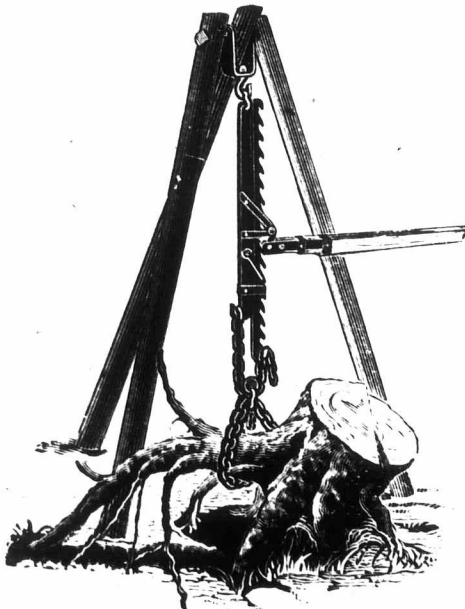
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SHIPPED ANYWHERE TO OPERATE  
ON TRUCKS, RAILWAYS AND OTHER  
ROADS. DOES MOST AND BEST WORK  
WITH LEAST CONSUMPTION OF FUEL.  
**GEO. ERTEL & CO. LONDON, ONT.** 298-OM



**The "DOHERTY ORGAN"**  
maintains its supremacy over  
all others.

**BUY THE BEST.** 261-y  
CLINTON, CANADA.

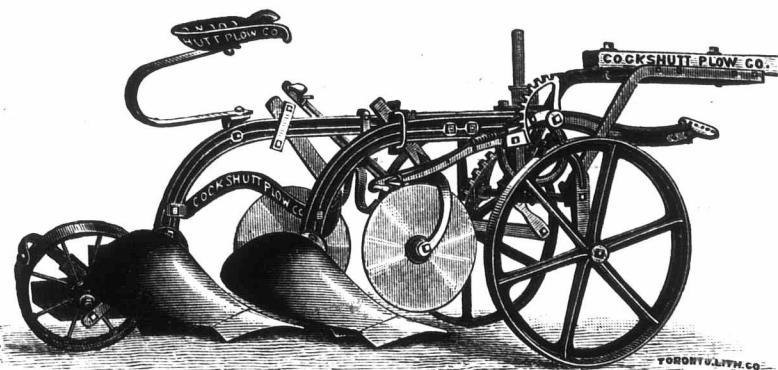
**CHAMPION STUMP and STONE EXTRACTOR**



Over 500 in use and nine years trial has proved this machine the best. Six sizes in stock. Send for circular  
**S. S. KIMBALL, Montreal**  
P.O. Box 945. Office, 577 Craig St. 296-a-0

**COCKSHUTT'S "J.G.C." RIDING PLOW**

Is the only Riding Plow built in Canada that, by its continued use by purchasers, has proved its superiority over all competitors.



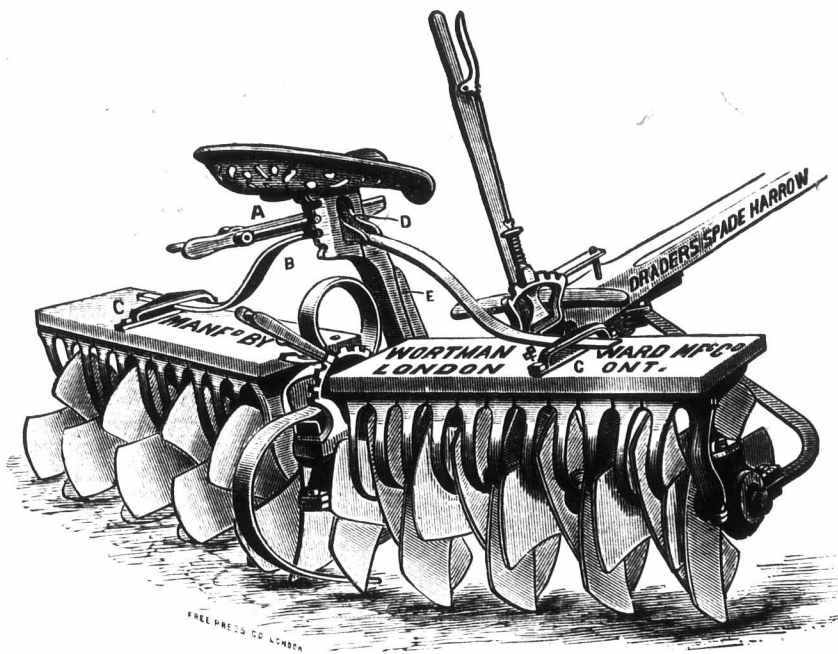
Either Single or Double and perfectly interchangeable for all our styles of bottoms as described in our catalogue. Will exhibit at Toronto, London, Kingston and Ottawa fairs only. Send for catalogue.

**COCKSHUTT PLOW CO. (LTD.),**

Manufacturers of the highest grade of Riding and Walking Plows,

**BRANTFORD, = = CANADA.** 297-a-OM

**DRADER'S  
SPADE HARROW**



**The Greatest Pulverizer and Cultivator Ever Made.**

The Spades are set two inches apart and have 168 sharp cutting edges, which literally chop the ground into a fine soil. The bearings are all hung on pivots, and will swing perfectly free no matter what position the Harrow is in. The boxes keep out the dirt, and each has a covered oil cup. By means of the Evener Spring and Lever under the seat the driver has perfect control of his own weight over the Harrow, and can make the machine work level over any kind of ground. The Disk Harrow ridges the ground; the Spades leave it smooth and level. The Cutaway Harrow Disks break; the Spades never do. The Spade is the only Harrow that will pulverize ploughed sod without turning grass up. The Spade Harrow will not clog in sticky ground; all other rotary harrows will.

Send for Descriptive Circular and Price. Good and responsible Agents wanted everywhere.

— MADE ONLY BY —

**THE WORTMAN & WARD MFG. CO.**  
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The **FINEST and LARGEST LINE OF FODDER CUTTING MACHINERY IN THE WORLD**

Better Made, Stronger, More Durable, and will cut more with less power than any other Cutter manufactured. Latest Catalogue Y, and our new standard 150 page Book Y on Ensilage and Silos sent free on application. Address

**THE E. W. ROSS CO.**  
MANUFACTURERS,  
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FROST & WOOD, GEN'L AGENTS,  
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OUR NEW 70 DEGREE BUCKET CARRIER

**BOYS FOR FARM HELP!**

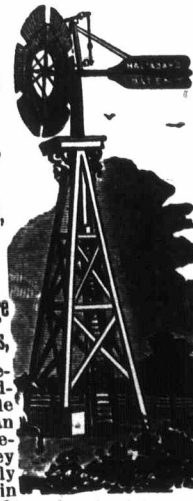
The managers of Dr. BARNARDO'S HOMES desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present nearly 3,000 children in these Homes, receiving an industrial training and education to fit them for positions of usefulness in life; and those who are sent to Canada will be selected with the utmost care, with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to

**MR. ALFRED B. OWEN,**  
AGENT, DR. BARNARDO'S HOMES,  
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**HALLADAY STANDARD WINDMILLS**

For supplying constantly pure and fresh water for the following purposes, viz.:-

- Pumping Water
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- Farm Buildings
- Mansions,
- Villa Residences,
- Public Institutions,
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- Green Houses,
- Town & Village Water-works,
- Hotels, Colleges
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- Fire Protection,
- Irrigation,
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These celebrated Windmills are made from one man to forty horse-power. They are perfectly controllable in gales, and uniform in speed. Catalogue and Price Lists with references mailed free on application to

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**SMALLEY GOODS**—Including ENSILAGE AND FODDER CUTTERS, SWEEP AND TREAD HORSE POWERS, DRAG AND CIRCULAR SAW MACHINES AND FARM ENGINES

are positively ahead of all others in the country, AND SO WARRANTED. Shipped to any responsible farmer in Canada, subject to 30 DAYS TRIAL, and to return AT OUR EXPENSE if not proving just as warranted. We are prepared to build Carriers any length, guaranteed to run at any desired angle to suit silos, and claim Smalley Carriers positively superior to all others. Our 1889 "Why it Pays Pamphlet"

should be read by every intelligent farmer interested in dairying or stock raising. It contains the very latest information relative to economical stock feeding. Will be mailed free to responsible farmers only, upon application, providing MENTION IS MADE OF PAPER in which this advertisement was noticed.

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MANITOWOC, WIS.



THE SMALLEY CUTTER,

WITH IMPROVED BUCKET CARRIER.

N.B.—We control original patent for Bucket Carriers. All others are frauds and infringements.

Ask for Special introduction prices and terms.

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**BUGGIES**

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Our output for 1888 was over 1000.

Agricultural agents will find it to their advantage to send for Catalogue and Price List. All work is guaranteed.



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We sell only to the trade.

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**BAIN WAGON CO.'S**

**FARM TRUCK**



THIS cut represents the most convenient Wagon ever put on a farm, because it is suitable for all kind of work, and always ready, no changes being necessary.

THIS WAGON was invented and first introduced in Michigan, U. S., and is now very extensively used by leading farmers in the United States.

AND EVERY WAGON made and sold by us in Canada is giving entire satisfaction. For further particulars and prices.

Address **BAIN WAGON CO., Woodstock, Ont.**

288-1f

**LANDS FOR SALE**

—BY THE—

**CANADA COMPANY**

**WILD LANDS. IMPROVED FARMS.**

**TITLE GUARANTEED**

The Canada Company have still a large number of lots to dispose of at reasonable prices, (from \$4 to \$30 per acre, according to quality and location).

In **Western Ontario**.—In the Counties of Essex, Lambton and Perth; also in the Township of Tilbury East, in the county of Kent; and in the Township of Aldboro, in the County of Elgin.

In **Northern Ontario**.—In the County of Simcoe; also in the Township of Euphrasia, County of Grey; and in the Township of Amaranth, in the County of Dufferin.

In **Central Ontario**.—In the Counties of Peterborough and Hastings; and in the Township of Sheffield, in the County of Addington.

In **Eastern Ontario**.—In the counties of Lanark, Carleton, Prescott, and Russell, besides many lots scattered through the older sections of the province.

These lots are, generally speaking, within a short distance of a railway, and are easily accessible by good travelled roads from a market town. Many of the farms have from fifteen to twenty-five acres of clearing fenced ready for cultivation.

The **Climate of Western Ontario**. The winters being comparatively mild and short, and the summers correspondingly long, is specially adapted to the successful cultivation of corn, grapes, peaches and all kinds of fruit, for which this section is rapidly becoming noted.

To actual settlers the most liberal terms of payment are offered, only a small payment being required down, the balance payable in seven or ten years, with interest chargeable as a rental at the rate of 4 per cent. per annum.

Full particulars, with complete lists of vacant lands, and prices of any lots selected by applicants, will be furnished on application to the

**COMMISSIONERS OF THE CANADA COMPANY,**

**TORONTO, - - ONTARIO.**  
Offices, 204 King St. East. 295-f-0

# THE CHATHAM FANNING MILL *and* BAGGER ARE THE BEST IN THE MARKET!

Well cleaned grain will always bring from three to five cents per bushel over that as generally sold on the market. Farmers should keep and feed their tailings. Millers don't want them, and won't pay for them. Those desiring the best Fanning Mill manufactured, should order the Chatham Mill, which has all the latest improvements. My sales last season were 3,600 Mills and 1,500 Baggers. This speaks for its popularity. The Bagging Attachment has been greatly improved and put in front of the mill, thus saving considerable room. It works very easily, will bag any kind of seed, from beans to timothy. One man less is required by using my bagging attachment. I have twenty-five teams and wagons at present delivering Mills in Ontario and Quebec, and they will be over most every county in Ontario. Any farmer who intends to buy a mill will find it to his interest to write to Chatham to Mr. Campbell and he will have an agent call and show the Mill at work in the barn. If it works satisfactorily, buy it; if not, no harm will be done. These teams will reach all parts of the country. Don't neglect to write because you are out of the regular travelled roads, as we go all over the country, and will be pleased to call and show you the work we can do.

20,600 CHATHAM MILLS  
ARE NOW IN USE

"SAY BOYS  
SHE TURNS  
EASY"

NO GRINDING  
NO CRANKING  
NO BELTING

TURNS VERY EASY.  
WILL CLEAN & BAG UP  
60 TO 80 BUSH. PER HOUR

ESTABLISHED  
1868

3600 WERE SOLD  
IN 1889

EASY TO TURN

BEST IN  
CANADA

25 TEAMS & WAGONS  
ARE DELIVERING THE CHATHAM MILL  
IN ONTARIO & QUEBEC

HOLD UP I WANT A  
CHATHAM  
FANNING  
MILL  
AND  
BAGGER

MANSON CAMPBELL'S  
FAMOUS  
CHATHAM  
FANNING  
MILLS  
AND  
BAGGING  
ATTACHMENT

CHATHAM, ONT.

J.L. JONES TORONTO

**I AM MAKING AND SELLING TWENTY MILLS PER DAY**

My Output for this Season will Exceed 4,000 Mills and 2,000 Baggers.

If my Mills are not kept by any agent in your locality, send for descriptive circular and prices, and have a mill shipped direct. Address—

**MANSON CAMPBELL, - - CHATHAM, ONT.**

MY MILL AND BAGGER WILL BE SHOWN AT THE FOLLOWING FAIRS:

INDUSTRIAL, Toronto, Ont.	WESTERN, London, Ont.	CENTRAL, Hamilton, Ont.	NORTHERN, Collingwood, Ont.
OTTAWA, Ottawa, Ont.	GREAT EASTERN, Sherbrooke, Que.	KINGSTON, Ont.	CHATHAM, Ont.

COME AND SEE IT.



### W. & F. P. CURRIE & CO.

100 Grey Nun St., Montreal,  
MANUFACTURERS OF  
**SOFA, CHAIR AND BED SPRINGS.**  
A LARGE STOCK ALWAYS ON HAND.

IMPORTERS OF  
Drain Pipes, Vent Linings, Flue Covers, Fire  
Bricks, Fire Clay, Portland Cement, Ro-  
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of Paris, Borax, Whiting,  
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PLEASANT,  
PROFITABLE,  
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**THOS. W. BOWMAN,**  
NURSERYMAN,  
Box 613 Peterborough, Ont

Write for terms.

### Ontario Veterinary College

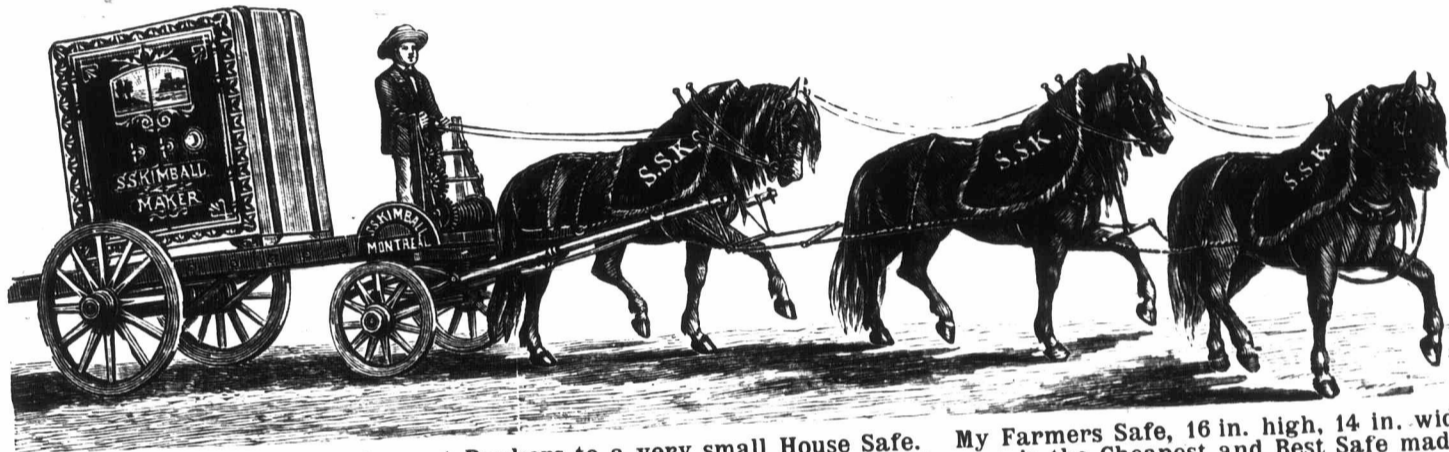
TEMPERANCE STREET, TORONTO.

The most successful Veterinary Institution in  
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begins Oct. 21st. Apply to the principal, PROF.  
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### Selected Farms!

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FROM \$1,500 TO \$25,000.  
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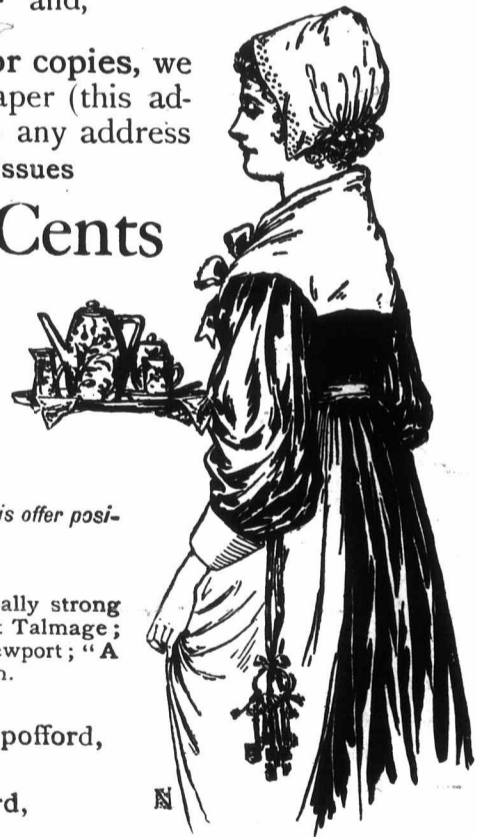
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