

# The FARMER'S ADVOCATE

AND HOME MAGAZINE.

FOUNDED 1866.

VOL. XXVI.

LONDON, ONT., OCTOBER 1891.

Whole No. 310.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

## THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL  
IN THE DOMINION.

PUBLISHED BY  
THE WM. WELD CO., LIMITED,  
LONDON, ONTARIO, and WINNIPEG, MAN.

JOHN WELD, Manager. F. W. HODSON, Editor.

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.

**Advertising Rates**—Single insertion, 15 cents per line. Contract rates furnished on application.

All communications to be addressed

THE FARMER'S ADVOCATE, OF  
THE WILLIAM WELD CO.,  
LONDON, ONT., CANADA.

### Fifteen Months for One Dollar.

According to our usual custom at this time of the year, we have decided to give the remainder of this year and all of 1892 to all new prepaid subscribers. Agents are instructed to take subscriptions on these terms. During the past year the ADVOCATE has steadily and surely grown in public favor. Our subscription list is larger than ever before, and is constantly increasing. We ask each of our old subscribers to send us at least one new name. To all who wish to get up clubs we offer the following terms:—

For from 10 to 20 new names 25c. each.  
" 20 to 50 " 35c. "  
50 and upwards, 40c. "

To those who desire to work for stock prizes we offer the following prizes:—To the canvasser sending in 100 new names at \$1.00 each, a young bull or heifer of any of the following breeds: Shorthorn, Ayrshire, Devon, Holstein, Jersey, Polled-Angus or Galloway. For 30 new names we will send a ram or ewe lamb of any of the following breeds: Cotswold, Leicester, Lincoln, Shropshire, Southdown, or Horned Dorset, and a pair of any of the following breeds of swine for the same number of names: Berkshire, Yorkshire, Suffolk, Poland-China, Chester White or Tamworth. Older animals of any description on equally favorable terms. All stock sent out by us will be registered in their respective records, and of good quality. We guarantee satisfaction in all respects. We want good, honest agents in every county of Canada, and will give permanent employment and good wages to suitable persons. Our regular agents are earning from \$600 to \$1,200 and expenses per annum. Agent's outfit furnished on application.

## Editorial.

### Report of Prize Farm Judges.

The judges, Messrs. J. I. Hobson, of Mosboró, and F. W. Hodson, of London, the gentlemen appointed by the Agriculture & Arts Association to examine the farms and award the prizes in the farm competition in Group No. 5, comprising the counties of Addington, Frontenac, Hastings, Peterboro', Victoria, Northumberland and Renfrew, have handed in their awards. They recommend the following prizes to be given:—J. A. Huffman, township of Thurlow, Hastings East, Blessington P.O., gold medal; S. Way, tp. of Hungerford, Hastings East, Chapman P. O., silver medal; Wm. Dolmage, tp. of Camden, Addington, Newburgh P. O., bronze medal; T. C. Stark, tp. of Pittsburg, Frontenac, Storrington P.O., bronze medal; Richard Moore, tp. of Wolfe Island, Frontenac, Wolfe Island P.O., bronze medal; J. Campbell, tps. of Mayo and Carlo, Hastings North, Havergal P.O., bronze medal; J. Mackey, tps. of Mayo and Carlo, Hastings North, Boulton P.O., bronze medal; Thos. Caskey, tp. of Madoc, Hastings North, Madoc P.O., bronze medal; Wm. Westington & Sons, tp. of Hamilton, Northumberland, Planville P.O., silver medal; Geo. English and Henry Humphries, tie, tp. of Asphodel, Peterboro', Hastings P.O., both bronze medals; Nichol Dawson, tp. of South Monaghan, Peterboro' West, Baillieboro' P.O., silver medal; J. F. Davidson, tp. of S. E. and L., Peterboro' West, Peterboro' P.O., bronze medal; J. Airth, tp. of Horton, Renfrew South, Renfrew P.O., silver medal; Jas. Martin, tp. Horton, Renfrew South, Renfrew P.O., bronze medal; D. Campbell, tp. of Admaston, Renfrew South, Admaston P.O., bronze medal; P. Cameron, tps. of Bexley and Carden, Victoria North, bronze medal; J. S. Jordan, tp. of Eldon, Victoria North, Woodville P.O., silver medal; J. Willock, tp. of Fenelon, Victoria North, Fenelon Falls P.O., bronze medal. Altogether there were 51 farms entered, entailing a great deal of work upon the judges. Over 800 miles had to be driven. Great interest has been taken by the farmers through the section of country where the competition lay, and it is not too much to say that this work, which is being carried on annually, and in which there is a growing interest, is going to be no mean factor in raising the standard of agriculture in this province.

Freeman's Fertilizer Factory, Hamilton, which was damaged by fire several weeks ago is being rapidly repaired, and will be in running order in a short time, when all orders for fertilizers for spring trade will be promptly filled.

### Our Prices Talk for Us—No Salaried Agents.

The above is the text of the subjoined letter, which the ADVOCATE heartily endorses. If farmers would cease to do business with agents, they would not only save in the price of implements they really need, but would not be persuaded into buying what they can well do without. It is the farmer that pays the machine agent's salary:—

"Some months ago we decided that it was to the interest of the farmers, as well as our own, that all salaried agents be dispensed with, and accordingly we dispensed with all that were working for us, believing that the farmers were intelligent enough to decide for themselves what goods they wanted without having an army of agents to advise them. By dispensing with agents we are enabled to give them superior machines at 20 per cent. less than we could through agents, and from this time we will give direct purchasers a straight discount of 20 per cent. off our price list. Our sales at the fall fairs convince us that farmers appreciate our efforts, and we do not wonder at it, as very few farmers will pay an agent \$100 for a machine that he can buy himself direct from the maker for \$80. We manufacture the largest line of agricultural implements in Canada, and intend that our prices in future will talk for us instead of agents. We have a competent man in charge of our sales department, and invite farmers to write us when in want of any machine, as we believe that we can save 20 cents on every dollar's worth they buy. We can suit all, as we have for the fall trade straw and ensilage cutters, root cutters and pulpers, grain grinders, powers, from \$5 up to \$100. Ask your readers to write for our catalogue and price list.

Address,  
"WATSON MFG. CO., LTD.,  
"Ayr, Ontario."

**THE BAIN WAGON Co.**—By consulting the advertisement in our advertising columns our readers will be directed to the class of farm wagons and sleighs that are being manufactured by the old and reliable firm at Woodstock. The Bain Wagon is now in use over a large section of the country, and the above-named company are entitled to a share of the public patronage, from the fact that the firm are painstaking in building, and liberal in terms.

In other columns will be found an article on sheep-breeding, by Mr. D. G. Hanmer, of the firm of D. G. Hanmer & Sons, Mount Vernon, Ont. These gentlemen are practical and successful sheep breeders. As such they have been well-known in Ontario for some years. Last year they showed the best flock of Canadian-bred Shropshires ever before exhibited in the province. This year their flock is better than last year. Several of the animals were bred by themselves, and all were fitted for show by them. In short, they are men who understand their business and practice what they know. The article referred to is plain and practical, and should be carefully read by every sheep breeder. Mr. Hanmer lays great stress on the quality of the head; this is correct, but other qualities must not be overlooked. There is a tendency with most breeders to pay greater attention to one quality than to any other, judging a sheep by that quality largely. While Mr. H. is particular about the head, he is also careful to obtain excellence in other points.



### C. P. R. Excursions to the Pacific Coast.

Canada's great national highway, the Canadian Pacific Railroad, has become famous, not only because of its splendidly equipped passenger cars and vessels, the excellent time made by their through trains and fast line of ships, but also for their cheap excursions to the Northwest Territories and all western points for the Pacific Coast. Their cheap summer excursions are well known to all Canadians and residents in the New England States. On October 7th and 21st an excursion train will leave Toronto at 11.15 p.m. for Washington Territory, U.S., and will make connection for all northern and western points.

On November 4th and 18th a similar train will leave Toronto for Oregon, U.S., and on December 2nd, 16th and 30th one will leave for California. All these trains will go by way of North Bay, Port Arthur, Winnipeg and Calgary, New Westminster, B.C., Victoria, B.C., Seattle, W.T., Tacoma, W.T., and Portland, Oregon. The fares on these trains to any northern or western point are the lowest second-class rates. The charge for berths in the sleeping cars, when two occupy one berth, will be \$2.50 each, but one passenger may secure a double berth when there is sufficient room by paying \$5 for same. These berths are in the tourist sleeping cars which, we are informed, are furnished with a regular outfit, the same as first-class sleepers, together with a cooking range, in a department in one end, for the use of the tourists. These cars are high, airy and well ventilated. They have upper and lower berths like a regular first-class sleeper, and are adjustable for easy seats in the day time, and for most comfortable beds at night. They are upholstered in leather. A porter will accompany each car to destination.

As the cars run through from Toronto without change, and only passengers destined to the Pacific Coast are carried, great care is taken to exclude any in any way objectionable. These parties are a great advantage, especially to ladies travelling without escorts, or gentlemen with their wives and families. One hundred and fifty pounds of baggage will be checked through to destination on each full ticket, and 75 lbs. on half tickets.

Passengers should provide themselves with a lunch basket of provisions. The baskets should have drop handles so they can be placed under the seats out of the way when not in use. Trains stop regularly at stations where meals are served and where hot tea and coffee can be procured. Dining cars are also attached to the train in which those who desire may take their meals.

Tickets and full particulars can be obtained from any ticket agent of the C. P. R. or from Mr. D. McNicoll, General Passenger Agent, Montreal.

Frequently men are heard to say, "I always plough so-and-so," or, "I always have my horses this way." This is wrong. Every animal should receive close attention, and be fed as its peculiarity and present condition demands. Our fields also should be treated in different ways in different seasons. We can form an idea of how to do a thing after seeing it and learning all peculiarities of the case, and not before, with any degree of certainty of success. I will ask the question: "Do any of you know a man that does the same job the same way every time?" If you do, I will assure you he is not progressive, and is not looking for any better or easier way to do things than his grandfather had.

### The Industrial Exhibition.

recently held in Toronto was one of a series of successes that has marked the history of this show, which, whether we take into consideration the entries in and quality of the live stock exhibit, the agricultural products, the number of visitors attending, or the financial success that crowned the efforts of the management, may be considered the greatest show of the continent. For the exhibition of 1891 a more liberal prize list than ever before had been offered, to which the exhibitors of live stock responded heartily by the following additions to each department:—

	1890.	1891.
Horses.....	971	1,007
Cattle.....	553	575
Sheep.....	384	415
Pigs.....	316	339

The excess in the entries was still greater in other departments, and although additions had been made to the buildings there was not a foot of available space that was not occupied. Financially, the crucial test is in the gate receipts, which, from the official figures, amounted to \$65,850.50 for 1891, against \$65,524.45 for 1890, while the figures of 1890 were \$10,000.00 in excess of any previous year. This in the face of a particularly late season, those in the northern part of the province being scarcely half through harvest, while in other localities farmers were still busy with fall wheat seeding. It being remembered that it is from the farmers that the bulk of the visitors are drawn, it must be concluded that this year's fair was an unqualified success.

The want of sufficient room has heretofore been the greatest drawback that the management has had to cope with, and this, we understand, will be rectified for another year's show, as at a meeting held since the exhibition by the Toronto City Council it is proposed to submit a by-law to the citizens to provide money to purchase another rifle range, so that the present Garrison Commons may be made available for another year's show. This is a proof of the untiring zeal of Manager Mr. H. J. Hill, who has scarcely closed the gates on the present season than he begins to look after the welfare of the next, and to whom the success that has been achieved is in a large manner due.

#### HORSES AT THE INDUSTRIAL.

As is usual at Toronto, the horses formed one of the most prominent features of the show, and with the grand exhibit made in this department it is a thousand pities that better arrangements for seeing them could not be adopted. "Too small" is the general verdict when the present grounds are spoken of, and, doubtless, this fact has this year militated against the rapid yearly advance in the number of visitors that marked the annual progress of the show in former years. The fact is, there is scarcely standing room for the vast concourse of people that make it a point to attend this exhibition, and if the arrangements spoken about above are carried out, we hope to see better arrangements for next year's show, which the public will doubtless show their appreciation of by a still greater attendance. The character of the horse exhibit, as well as other classes of live stock, undergoes a change each year. Particularly is this the case in horses for driving purposes, fashion and requirements demanding a suitable horse, and in an exhibition like the Industrial this is most observable, and quite in keeping with the advance made in other lines. In the different styles of turnouts in equipages the changes of a year were very noticeable, and show that we, like the eastern cities across the lines, are following more and more the English modes as well as in English horses.

The management at Toronto have made a decided improvement in adding a number of classes

to those heretofore given for driving and carriage horses, which included pairs over 15 hands, driven to T cart, standhope, mail, or spider phaeton, which will have the effect of defining better for what purpose the different types of carriage horses are required.

#### THOROUGHBRED

horses were largely represented, especially in the aged stallion section. Many beautiful specimens, such as the grand horse Buffalo, by imp. Bellet, owned by Jos. E. Seagram, Waterloo, and F. A. Campbell's Billette, by the same sire, and John Dymont, Orkney, King Bob, Mowat & Maclean's Disturbance. The two first mentioned are large, handsome horses, exactly suited for breeding on the commoner bred mares, in order to produce horses for carriage and saddle purposes. As is too often the case among the young ones of this class, there were a lot of weedy things that had the appearance of a lack of suitable feed and care which is due them if their breeders intend or wish them to become popular, and which is necessary in order to develop them earlier, as other breed fanciers do. The breeders of thoroughbreds, for some strange reason, are particularly careless in their manner of bringing out young fillies and colts.

Roadster or trotting bred horses had no less than 242 entries, and if to these the double teams were counted in, considerably over 250 horses of this class had added their quota to the exhibition, which shows that there is no likelihood of a scarcity in this line of equine production for some years to come. Numbers in this class forbid anything like an individual description, but the winners will be found in the prize list in another column.

The Carriage and Coaching class was made up of Yorkshire Coach or Cleveland horses, and horses with more or less thoroughbred blood, also those in the trotting line of breeding; and it is worthy of note that the winners were drawn in every case from the ranks of the former wherever horses of this breeding appeared in the section, showing how prepotent is this blood. Wild Harry, a Yorkshire bred horse, by Emperor 1293, dam by Ballet (thoroughbred), was the winner in the aged class. He is owned by Isaac Hisey, Cremore, Ont. He has recently finished a heavy season in the Paris district, and was not in the high form that we have seen him, but his capital action and grand quality won for him the coveted place. Mr. McMillan, Erin, carried the second with imported Shining Light, sired by Wonderful Bay 534, the third going to Frank Bassano's Lord Derwent 1090, by General 117. The three year section was not nearly up to the aged ring; but a good one came out in Abraham Bean's Peacock, and a better one came out in the two-year-olds, the winner for this section found in Young Prince Alexander, sired by imp. Prince Alexander, dam a mare by the well-known imported Coach horse Peacock, that left such a number of good ones, and whose daughters are breeding winners every year. The sweepstakes for the best stallion of any age was also won by this colt, showing that Canadians can breed the quality if the proper care and attention is devoted; but breeders must learn to fight shy of the breeds that are yearly brought out intending to represent carriage horses, many of which are unfit for any purpose known to us.

#### HACKNEYS

are fast growing in favor with the public generally, and it is safe to say that they have got as strong a hold of the affections of a large share of the horsemen here as they have in England, and we hope that before another year's prize lists are made up each sex and age will have a section assigned to them as in other breeds. In the aged stallion class, the only one really given recognition, twelve entries had been made by the following exhibitors:—Messrs. R. Beith & Co., Bowmanville; Graham Bros., Claremont; D. & O. Sorby, Guelph; Prouse & Williamson, Ingersoll; Jos. Beck, Thorndale; Ormsby & Chapman, Credit; R. J. Arnsworth, Toronto; J. M. Mason, Bowmanville. Out of the above entries seven came seeking honors at the hands of Messrs. John Hope, Brantford, and Arch. Wilson, Paris, the judges appointed to this class. The beautiful horse Jubilee Chief 2122, shown by R. Beith & Co, was placed first.



He has capital all-round action, both easy and attractive. To Graham Bros. Neptune 2nd 2608, sired by Norfolk Gentleman, was given second. He is a horse of capital finish, full of mettle and brilliant in action. D. & O. Sorby gained third with Mid Norfolk Swell 2nd 2595, sired by Young Redoubt, both of the latter having been recently imported. R. Beith & Co. showed a beautiful lot of mares and fillies described in our September issue. These were awarded special, as no regular place had been given them in the prize list.

Horses of Hackney type of Canadian breeding, and of capital quality and beauty were to be met in many of the turnouts on the grounds, and we have abundant material for breeding them, provided the best class of English Hackney stallions are patronized.

AGRICULTURAL HORSES

are generally bred from Clyde and Shire crosses, and form a lot of useful horses; but the money prizes offered to stallions in this class might be made better use of. In this year's list general purpose stallions have been left out, which is an improvement. There is no necessity for encouraging stallions of the non-pedigreed sort; these only curtail the patronage of the better kinds that require all the encouragement, as large sums of money are required to bring these out. In the agricultural class there were some very fine specimens of mares and fillies which it is all right to give prizes for, as they will be bred in the draught line, and will produce capital, saleable horses from good imported stallions.

CANADIAN BRED DRAUGHT HORSES

were a very good, strong lot, especially among the mares and fillies, which displayed size and quality often the equal of those bred from imported dams. In this class is recognized those bred up straight with imported Clydesdale stallions, and also with the Shire out cross, individuality having been kept more in view than straight breeding. Although it has produced capital horses, yet the sale of these latter will be likely to be at lessened prices as the demand for straight breeding yearly increases.

SUFFOLK PUNCH

horses made a nice display. The recently imported horse owned by Jos. Beck, Thorndale, was much admired, as also were a lot of good mares exhibited by Mossom, Boyd & Co., Bobcaygeon.

PERCHERONS

had but two representatives, shown by Mossom, Boyd & Co., Bobcaygeon, and J. M. & D. Parker (stallion), and a Belgian horse shown in this class by T. W. Wambold, which competed successfully with these.

ENGLISH SHIRE.

Aged stallions had but three entries, the first going to Hisey & Sons, Cremore, King Tom, a horse that still retains his good form. Morris, Stone & Wellington showed Chieftain Second, a useful horse, and Geo. Garbutt exhibited Darnley (imp). Morris, Stone & Wellington won first in three, two and one-year-old, respectively, and D. B. Birrell second in the same sections.

CLYDESDALES.

Those who came to Toronto with the expectation of observing a weakening in the display made by this grand breed of draught horses, were, doubtless, agreeably disappointed, for not only was the entry large, but individually exceedingly strong. Especially was this the case in the mare and filly classes, which were far before any previous show. To Messrs. R. Gibson, Delaware; G. Moore, Waterloo, Ont.; and A. Bell, Athelstan, P. Q., was assigned the task of awarding the prizes.

In the aged stallion section there were fourteen entries. R. Beith & Cos. Sir Walter, often described, was given the red. He was in great form and flesh, and carried himself well. Macneilage, shown by James Addison, and never before vanquished in his class in Canada, was awarded second. He was not in the same bloom about the legs that we have seen him, otherwise he was much as usual. To R. Beith & Cos. Eastfield Laddie, was awarded third place, and he, too, was in capital form.

Three-year stallions had eleven entries to their credit. Energy, by Macgregor, imported by Graham Bros., and now at the head of the splendid stud of mares at Thorncliff Stock Farm, Todmorton, and owned by Robert Davies, Esq., Toronto, was an easy first, and also won sweepstakes for the best Clydesdale stallion at the show. This horse has thickened out immensely since the spring show, and is a horse of wonderful proportions and scale for his age. Crosby Chief, owned by Graham Bros., recently home from the Paris district, was given second, and looked as though he had been taken care of while away from his own quarters. Graham Brothers' Arbitrator, a neat horse with capital ground works, was third, and was also much admired by some competent judges visiting here from Scotland.

Among the two-year-olds several new-comers were forward, the call for colts of this age bringing out a large and good class, Messrs. D. & O. Sorby, Guelph, winning first with a very handsome bay colt of their own breeding, sired by Bydston Boy, dam Jane Eyre, by Prince of Kilbride. This colt has capital feet and legs and moves attractively. The second went to Graham Bros. Craighonald, a thick, good colt, sired by Craigisla, a son of the Prince of Wales horse Prince George, Irving & Brown's colt, Montrave Monk, sired by Macneilage, winning third. Yearling colts had ten entries, but only three came to the call, the first in this case going to Graham Bros. Symmetry, who was an easy winner, and is the most promising yearling brought out in many years. He has wonderful feet and legs, heavy bones of the best possible quality, with pasterns that cannot well be improved upon, while his top piece is well developed, and yet denotes any amount of outcome. This colt is sired by the Darnley horse Eusign, and is the type that is in demand both sides the Atlantic. Graham Bros. won second with the Macgregor colt MacCrone, a fleshy, good one, of extra good quality. Jno. Black, Coleraine, winning third with Duke of Wellington, bred by S. Shunk, jr., of Eigelby, Ont. A grand ring of three-year-old fillies was that which sought the honors offered for this section. The beautiful Lord Lyndock filly Edith, from Thorncliff, was given the red, Graham Bros. Daisy, by Belted Knight, second, and L. Smillie, Hensall, winning third with Eugenia, bred by himself. For two-year fillies first went to the credit of Thorncliff for the Macgregor filly Sweetheart, A. Doherty gaining second with Miss Fleming, and Prouse & Williamson third with the Sir Everard filly Nelly Muir. In yearling fillies D. & O. Sorby won first with a filly of grand quality, sired by McCamon. Thorncliff Stock Farm had a good mate to her in Candour, by Macgregor, which gained second, Graham Bros. winning third with a Canadian bred filly, by Tannahill. Brood mares with foals by their side was the best ring we ever saw at Toronto, and contained eight exceedingly good ones. The first was sent to a Cairnbrogie stamp mare of good size, owned by Alex. Cameron, St. Marys, Thorncliff winning second with the beautiful mare Lady Dunmofe, and Prouse & Williamson third with Jean of Greenhill. Foals, first went to Thorncliff, second to Graham Bros., a foal by Macneilage; Prouse & Williamson third. The best mare of any age was won by the grand mare Bessie Bell, from the Thorncliff contingent, which was perfectly right, although the judges appeared divided on this point. Bessie Bell was spoken of last year in a strong article in the London Live Stock Journal on "The Clydesdale Mares of Scotland," she being mentioned as among one of the five best. She was sired by Darnley, and is, without doubt, the most beautiful mare of the breed on the continent to-day. The two imported mares Bonnie Bell and Nellie that were also imported last year by Graham Bros. made up a grand team, which were much admired, winning first for pair Clydesdales.

CATTLE.

A look through the cattle stalls at the recent Toronto fair was enough to settle the question as to the fitness of fair Ontario for the production of first-class stock. An extensive acquaintance with the great stock-raising states of the

neighboring republic, and personal observation at many of the western state fairs, enables the writer to say, with entire confidence, that at no exhibition on the continent can so large a collection of first-class representatives of so many different breeds of cattle be seen as are annually brought out at the Toronto Industrial Fair. This is saying a great deal, but not too much, and it ought to help to give to Canadians more of that sense of pride of country which moves our neighbors to claim that their's is "God's country," or "the greatest country on earth." All the classes of cattle were well filled at Toronto, and in our necessarily brief report we take them in the order of the catalogue. First come the

SHORTHORNS.

When it became known that Mr. Hope would not make a show from the Bow Park herd this year it was feared that the display in this class would not be equal to that of the average of previous years, but in this we were agreeably disappointed, as the class was acknowledged by all to be well sustained, both in regard to numbers and quality. It speaks well for their faith in their favorites that the breeders of Shorthorns have stood firmly by them through good and through evil report, and it must be encouraging to them now to know that their future looks brighter, and hope is on the wing. Let us again urge upon the breeders in all the classes the importance of a large number of them preparing a few of their best for competition at the annual exhibitions, in order that the best possible representation of the breeds may be made. There are nearly four hundred breeders of Shorthorns in the membership of the Association, and who will say that less than twenty of these who made entries for the Toronto fair have in their herds all the best that could be brought out? Let the smaller breeders take encouragement from the fact that at this fair the owner of a single animal in this class, not only won first prize in a strong ring of his own age, but made a powerful stand for the sweepstakes for best bull in the class.

The exhibitors in this class were happy in the selection of judges made for them from the list nominated by the Breeders' Association, and the names of W. H. Gibson, J. C. Snell and James Davidson, jr., were a sufficient guarantee that the best would win. Just here we may remark that if the exhibitors in the other classes would insist upon the appointment of judges from among a list nominated by the breeders' associations there would be less cause for complaint, and less dissatisfaction with the awards made. In the section for the Shorthorn bulls over four years old there were three entries, and the competition was mainly between the eight-year-old roan, Challenge, by Barmpton Hero, bred and owned by Messrs. Watt, and his five-year-old roan son, Stanley, owned by Messrs. Russell, who have had such signal success in past years in winning with the substantial, thick fleshed, meaty and mellow bull which heads their herd. The older bull is remarkably smooth in his flesh and form, and for age is well preserved, while he has proved an exceptionally good breeder, as the many good things of his get brought out at this show abundantly testify; but the son stands on a better set of legs and has more depth of ribs and flanks and a more stylish carriage, and so Stanley was placed first, Challenge second, and Messrs. Smith's Prince Albert, another roan son of Barmpton Hero, bred by the Watts, a lengthy, stylish, useful bull, and a rare good breeder, was awarded the third prize. There were only two three-year old bulls in competition. Both were good ones, Mr. James Rennie showing imp. Gravesend Star, a red, of grand scale and even proportions, but not in as high show condition as his rival, the neat, trim, smooth, well balanced, but somewhat effeminate looking red imp. Cruickshank bull, Northern Light, shown by Mr. Davies, of Toronto. The judges were evidently taken by the rangy, masculine character of the Gravesend bull, and, therefore, gave him first place, though the other bull had many friends, who thought the order might well have been reversed. In two-year old bulls Mr. Eastwood's roan, son of imp. Warrior, bred by Messrs. Nicholson, was a clear first. This bull was brought out in the pink of condition, and is an animal of fine proportions, great length and



smooth form throughout. Mr. Oke's red and white Ironclad, by imp. Eclipse, a thick-fleshed, blocky, well furnished bull, got second place, and Mr. Fairbairn's red Royal Albert, bred by Arthur Johnston, made a right good third. The yearling bulls were an extra good lot. There were four in competition, the first prize going by common consent to the rich roan Nonpareil Chief, shown by Messrs. Nicholson. He was bred by Mr. Johnston, sired by his imp. Cruickshank Victoria bull, Indian Chief, acknowledged to be one of the best bulls now in Canada, and proving an exceptionally true sire. This bull was one of the best cards in the show, and early made an impression upon the judges, which marked him as a candidate for higher honors later in the day. He is a young bull of fine character, with scale, flesh, finish, substance and style in high degree, a show bull in any company, and promising to do his breeder credit and his owners much good. The second prize in this class also went to a roan bull of Mr. Johnston's breeding, Messrs. Grier's Lowland Chief, a short-legged, smooth, level bull of fine quality. Messrs. Watt showed a red son of Prince Albert, named Village Hero, from imp. Village Blossom, the dam of the phenomenal young Abbotsburn, the conqueror of a continent, who is walking off with first honors and sweepstakes in the great circuit of Western State fairs this year as he did last year. We do not suppose that the fact of his having a big brother had any weight with the judges in making a decision between this bull and the rich red roan Roy Vincent, by imp. Mariner, shown by Messrs. Douglass & Son, of Strathroy, but we venture to say that if they made a mistake anywhere in their work it was in placing the red before the roan in this section. It is true the latter showed to some disadvantage in allowing his back to sag slightly, but he had a wealth of flesh and hair, and feeding qualities which ought to commend him to careful consideration, and from the comments of onlookers we judge the crowd would have placed him above the red bull. The class for bull calves was large and well filled, over twenty of them toeing the mark when called. They were an extra good lot and a hard ring to judge, but there was a clear first in Messrs. Russell's red Prince Royal, by imp. Windsor, out of imp. Roan Princess. He is an extraordinary youngster, was a powerful candidate for the sweepstakes, and promises to make one of the best show bulls the herd has produced in Canada for many years. The second place was given to Mr. Thomas Russell's roan Marryman, by Riverside Hero, by imp. Mariner. He is a calf of grand quality, with the best of hair, and is smoothly made. The third place was given to the red son of imp. Northern Light, Bright Light, shown by John Miller & Son, fourth to Mr. Nicholson, and fifth to Messrs. Watt.

The contest for sweepstakes lay between the first prize bulls in the foregoing sections. They were all good ones. The two-year-old, the yearling and the calf each had strong claims, but the judges finally agreed on Messrs. Nicholson's Nonpareil Chief as the champion, and he wears his honors worthily.

The aged cows were not as strong a lot as we have seen here in other days when Lady Jabel and Hovering Nonpareil, those sousie matrons of the Bow Park herd, held receptions in the same ring, but the Messrs. Watt showed a right good cow in Midland 3rd, a rich roan, four-year-old daughter of Challenge, out of imp. Mildred, by Gladstone, a cow of good size, true form and fine quality, with grand crops and brisket, and fine spring of ribs, and withal a show of udder that would do honor to a dairy cow of any breed. The two-year-old ring of heifers was noted for the presence of an extraordinary heifer in Mr. Robert Davies' Red Rose of Strathmore, bred by John Miller & Son, sired by imp. Vice Consul, and of a Strathallan cow, a family which has produced many markedly good things. She is a heifer of wonderful development and proportions—one of the big, good ones, which with a little more preparation would have been hard to get over in the sweepstakes competition. Messrs. Watt showed a magnificent yearling heifer, the name Matchless 10th, by Perfection, a son of old Hampton Hero, which was an easy first in her

class and the favorite with many for the sweepstakes. She is as smooth as they are made, with the best quality and hair, plenty of substance, and a rare finish. She promised to be a show cow from the start, as she was the best heifer calf last year, taking first place by common consent then and now in her class; but the judges gave the sweepstakes to the matronly cow Mildred of the same herd, a decision which few would dare to question, though many had made up their minds that the yearling would get there. Perhaps the most interesting ring in the class was the heifer calves. There were twenty-five of them in competition, and it is safe to say there was not an inferior one in the lot—there was hardly a middling one among them. It was a hard place for the judges, and they had the sympathy of the crowd. To pick out the five best was a difficult task, and it would be strange if some mistakes were not made. After the second draft had been made, and the cards had been shuffled more than once it was found that first place was given to Messrs. Russell's deep, rich roan, Centennial Isabella 25th, by Stanley, a calf of wonderful substance and fine quality, the second going to Messrs. Watts' red Matchless calf, third to John Miller's beautiful red daughter of Northern Light, a model heifer in every way. The herd prize went to Messrs. Watt, second to Messrs. Russell. The prizes for best four calves went to the Russells first, Watts second, H. & W. Smith, of Hay, third, The Messrs. Smith showed a very nice lot of young things, and were successful in winning several prizes with their Village Blossoms, the family from which comes the invincible Abbotsburn, whose dam is in the herd. T. Douglass & Sons, of Strathroy, showed a capital lot of young things by imported Mariner, a Scotch bred bull which has proved an excellent sire. Their bull calves were especially fine, and the yearling red roan bull Roy Vincent is an extra good young bull, full of constitution and feeding qualities.

#### HEREFORDS.

Mr. Cochrane's herd was not in the show this time, and it was thought the class would not be strong, but the other breeders found themselves equal to the occasion by bringing out their cattle in better bloom than usual, and we do not remember to have seen a better all-round show of Herefords in many years. There were some extraordinary animals shown, and the whole class was decidedly strong. The principal herds represented were those of Messrs. Fleming, of Toronto; Judah, of Hillhurst, P.Q.; Smith, of Compton, P.Q.; Dawes & Co., of Lachine, and R. H. Pope, of Cookshire, among whom the prizes were divided. The ring for bulls over three years old was especially good, the first prize going to Mr. Smith's Young Tushingham, a massive bull of great size, length and depth, very full and complete in all his points. Mr. Fleming's bull, Wilton Hillhurst, a grandson of the great Cassio, stands on shorter legs and is more like the type of Cassio, the most successful Hereford bull that has ever been shown in Canada. Messrs. Dawes & Co. won first prize on their yearling bull, and Mr. Fleming got first and second on bull calves, Mr. Pope securing third prize. The cows, we thought, were not as strong as the heifers. The first prize was given to Mr. Fleming on his imported Lilly 6th, a cow of large size and good quality, with great constitution and weight, but a bit plain at the setting on of her tail, and a trifle short in her quarters. She was, however, awarded the silver medal as best female in the class, which stamps her a good one in a good class. The three-year-old cows were fine, and Mr. Fleming won first on his Lady Wilton, by Conqueror 2nd, Messrs. Dawes winning second prize on Rosebud, by Barrister. In yearling heifers Mr. Judah won first, and on heifer calves Mr. Fleming got first and third prizes. In the competition for herd prizes Mr. Fleming was very successful, winning first and second prizes, Mr. Smith's herd taking third place.

#### POLLED-ANGUS.

In this class Mr. Cochrane's fine herd of other years was missed, but there was a very good representation of the breed in the herds of Dr. Craik, of Lachine; R. H. Pope, M.P.; Dawes & Co., Wm. Stewart & Son, Lucas, Ont.; and Wm.

Nesbit & Son, of Colville. The first prize aged bull, Emlyn, shown by Dr. Craik, is a bull of great substance, good length and fine quality. Mr. Pope had a good second in the head of his herd, and Messrs. Nesbit got third prize on Pres. of Bli Bro. The cows were an excellent lot and Dr. Craik's Fairy, of Eastview, is a perfect model of the breed, long, low and level in form, with fine quality throughout. She won the silver medal for sweepstakes. Dawes & Co. had a right good second prize cow in Jeannie of Kinlochtry. The young things in this class were very fine, and Dr. Craik's first prize heifer calf was a perfect model. In the competition for herd prizes Dr. Craik won first place, Mr. Pope second, and Messrs. Stewart third.

#### GALLOWAYS.

The competition in this class was again between Mr. McCrae and Mr. Kough, both of whom have excellent herds, showing all the true characteristics of the breed. Mr. Kough's herd was in fine condition, and captured the majority of the prizes, but Mr. McCrae has a very useful herd, which, kept in the ordinary way, show fine quality and strong breeding, with all the best points well preserved. The ring for aged bulls was very good, and Mr. Kough's Claverhouse was placed first, Mr. McCrae's Stanley Second making a good second. Claverhouse was awarded the silver medal for best bull any age. The cows were a good ring, the first prize going to Mr. Kough's Countess of Glencairn and second and third to Mr. McCrae. The gem of the class was Mr. Kough's Countess of Glencairn, the first prize two-year-old heifer, to which was also awarded the sweepstakes silver medal for best female in the class. Mr. Kough's herd was placed first and Mr. McCrae's second.

#### DEVONS.

In this class Mr. Rudd had the field to himself, which is not so interesting as when there is competition; but Mr. Rudd has good cattle and keeps them in good shape. He had about fifteen head on exhibition, a very even lot, and creditable to their owner.

#### AYRSHIRES.

The exhibitors in the milking breeds have favored the appointment of a single expert judge in their classes, and their wishes have been met by the Association, but we judge from the feeling which prevailed amongst them in all the classes where an expert was employed that there is no less complaining, but rather more than under the old system of three judges. The Ayrshire class was full as usual, and the quality was quite up to the mark. There were 117 entries in the catalogue, and about a dozen exhibitors, making a grand display of this old standard dairy breed. The section for aged bulls was well filled by strong representative animals, Mr. McCormack's Campbell getting first place, Mr. Guy's Butterfly Duke coming in second, and Messrs. Morton's imp. Royal Chief third. We could not but think the latter bull was entitled to a higher place, as he is a very true type of the breed and shows strongly all the best points of a dairy bull, but he was in good company and there was room for difference of opinion. Mr. J. Yuill, of Carleton Place, had an excellent bull in his Baron Mansfield, and W. & J. C. Smith, of Fairfield Plains, showed a very handsome bull in Rob Roy of Oxford. In the ring for two-year-old bulls Kains Brothers, of Byron, were successful in winning first honors in his class, and also the silver medal for best bull of any age, with Prince of Byron, a model Ayrshire bull, handsome in form and finish, and carrying all the true characteristics of the breed in his outlines. In the ring for yearling bulls Mr. Guy captured the red ticket with his White Prince, the second prize going to the Messrs. Smith, of Fairfield Plains. Mr. Yuill got to the front in the bull calf section with the handsome young Birchall, a very promising calf, second prize going to Kains Bros., and third to Mr. Guy. The show of Ayrshire cows at Toronto is always strong, but it seemed to be better than usual this year, as a dozen finely furnished cows were ushered into the ring. It was a sight to do one's eyes good, those large udders, so shapely and yet capacious. It must have been a hard place for a judge to be placed in, and he needed



to be a man who knew his business to have the courage to say which was best among so many good ones. Messrs. Morton's Maggie Brown was finally selected for first place, a decision which met with general approval, the third prize going to the same herd for imp. Dandy First, and second prize to Messrs. Smith's Empress, a good type of the breed. In three-year-old cows Mr. McCormack had a good first in his handsome Phyllis of Rockton, and Mr. Guy a good second in Model 4th, Mr. W. Stewart taking third prize on Lady McDonald. The silver medal for best female went to the first prize cow in her class, Maggie Brown, and the herd prizes were awarded to Messrs. Morton, McCormack and Smith in the order named. Mr. Guy won first prize for best four calves under a year, Kains Bros. taking second, and Mr. Stewart third.

## THE JERSEYS

made a fine show, the class being well filled in every section with as fine a lot of animals as we have ever seen at Toronto. There were 120 entries in the class, and they were creditable to the breed and the owners. A single judge, Mr. Crozier, of N. Y., passed judgment upon the Jerseys, and he ought to be a good judge as he has seen and owned a great many good ones, but even an expert may fail to make all the exhibitors happy, as he did on this occasion. This is perhaps the hardest class to judge in the whole list, as people differ so much in their judgment and tastes, and each one has his own ideal or standard of excellence in his own mind. This being the case it is not strange that sharp criticism and even complaint follows a man's work. There were about fifteen exhibitors in this class, among whom were Mrs. E. M. Jones, of Brockville; Capt. Rolph, of Markham; T. E. Brameld, Oakville; Geo. Smith, Grimsby; McLean Howard, Toronto; J. H. Smith & Son, Highfield; J. Clark, Brampton; J. Maughan, Toronto; H. D. Smith, Compton; John Crowe, Guelph; J. Leys, Pickering, and W. Johnston, Sweetsborough. Mrs. Jones' herd came out in fine condition, though not overdone by any means, and a splendid collection they were rich, not only in blood and breeding, but in individual excellence and performance as well, and one thing we were glad to see was that Mrs. Jones has the courage to keep in her fine herd animals of excellence in the line of practical work which are not up to the popular standard as to color. The rage for "solid colors" in Jerseys we are persuaded has done much harm to this breed, as it has to others. The true standard adopted by the Breeders' Association does not require solid colors, and many of the richest butter cows and best performers are of broken colors, including the marvellous Bisson's Belle, of Tennessee, who has recently completed her wonderful record of 1,028 pounds of butter in a year, and Mrs. Jones' grand old cow Massena, now in her 16th year, with a record of 936 pounds in a year, and looking as fresh as a daisy. In the ring for aged bulls at Toronto there was a grand competition, including Mrs. Jones' Canada's Sir George, and Massena's Son, Mr. Clark's Mighty Dollar, Mr. Smith's Nellie's John Bull, and Mr. Rolph's One Hundred Per Cent, a combination of notable sires and show bulls seldom equalled in one ring in Canada. Popular opinion would have placed Canada's Sir George at the head of the class with out a moment's hesitation, and we could not for the life of us see why he should play second fiddle to Massena's Son, except for the fact that the latter was the son of his mother; yet so the judge placed them, and perhaps he could see more in the boy than could those with a less trained eye and less extended experience. Mr. Geo. Smith's Nellie's John Bull, by Canada's John Bull, the sweepstakes bull of last year, had to be content with the third place this time; but he is a grand bull, and many would have placed him higher in the roll of honor. Mighty Dollar, by One Hundred Per Cent, is a bull of great substance and good quality, and has been a first prize winner and head of a first prize herd here before, and he has kept himself in good shape. Capt. Rolph's One Hundred Per Cent, the sire of Mighty Dollar, was on exhibition for the first time. He is not a strong show bull, being somewhat heavy headed, and drooping in his quarters, but has

fine quality and strong constitution, combined with rich blood lines, being one hundred per cent. of the blood of the famous Mary Anne of St. Lamberts, and his blood shows itself in his progeny, producing many show bulls and rich working cows. In the two-year-old ring Mr. Brameld had a clear first in his Dolly's John Bull, by Canada's John Bull, an animal of strong constitution and fine quality, and promising to go on to hold a high position among the best bulls. Mr. Brameld also showed a very fine bull calf, Dollar Bill, by Mighty Dollar, out of John Bull's Paintress. The sweepstakes silver medal went to Mrs. Jones' Massena's Son. The ring of matured cows was a charming display. Twenty cows in blooming condition, most of them carrying full udders, and not a mean one among them, made as pretty a sight as one could wish to see in this line. Hugo Beauty, a familiar figure here, having won first place in Mr. Brameld's herd two years ago, but now in Mrs. Jones' herd, every inch a show cow, and looking like a large milker, was a sure first, and she got there. Dawes & Co., of Lachine, got second place with a very handsome and rich looking young cow, while Mrs. Jones came in third with the grand old Massena, in her sixteenth year. This is a model dairy cow in form, with a magnificent udder and wonderful milk veins, and has made her record as one of the greatest performers at the pail and in the butter basket the world has ever seen. Mr. Howard, of Toronto, showed two excellent cows in Mary of Glen Duart and Cathala of Glen Duart, the former having won third prize here last year in very fine company. In three-year-old cows Mrs. Jones got first place with Jetsam's May, a daughter of One Hundred Per Cent, and of Mr. Brameld's imported Jetsam. This fine young cow made a record of 14 pounds of butter in a week at two years old, and her dam is one of the best cows in Canada. Capt. Rolph showed a very nice lot of young cows and heifers, rich in St. Lambert blood and showing fine quality. Messrs. Smith & Son, of Highfield, showed a very handsome cow in Signal's Rosa May, and her heifer calf, by Lord Bolivar, we thought deserved a place in the prize list. Mr. George Smith, of Grimsby, had also a fine lot of cattle out, representing his well-known herd of some 70 head, led by the fine show bull Nell's John Bull. The first prize for herd went to Mrs. Jones, and the second to Dawes & Co.

## THE HOLSTEINS.

Last, but by no means least in the list, come the Holsteins. There were about seventy-five of these on exhibition, owned by about half a dozen breeders, and the class was commendable throughout. The big black and whites are evidently gaining ground and attracting the attention of the dairymen of the country. When authenticated records of 60 lbs. to 80 lbs. of milk per day are made, and 16 lbs. to 20 lbs. of butter in a week, the figures catch the eye of those who read, and it is not surprising that those who are turning their attention to dairying should want some of that sort. The ring for aged bulls was a strong one and brought out Mr. Stevenson's Netherland Romulus, Smith Bros. Mink's Mercedes Baron, Mr. McClure's Holland Rover and Hallman & Co's. Netherland Statesman. The contest seemed to narrow down to the last named bull and Mercedes Baron for first place. Both were grand representatives of the breed, and one could be happy with either if the other were not there, but the judge decided in favor of Statesman for first and Baron for second, Romulus coming in for third prize. Mr. Hallman had a walk-over with his two-year-old bull, Royal Canadian, there being no competition; but he is a royal good bull, and would stand high in first-class company. There was an interesting contest in the class for yearling bulls. Messrs. Smith Bros.' Prince Castine, lately imported for use in their large herd, was considered a strong candidate for first honors, and he has much to commend him to that position. He has length, and style and quality in a high degree, while his blood elements mark him as a promising sire, especially when mated with such choice cows as grace the pastures of the Credit Valley Stock Farm; but Mr. Stevenson's Modest Girl's Aggie Prince, caught the eye of the expert judge and

won the coveted first place, Messrs. McNiven's Siepje 3rd Mink's Mercedes Baron coming in for third prize. Mr. Hallman was remarkably successful with his bulls, winning first prize in three sections, besides the sweepstakes and the silver medal for best bull and four of his produce. Smith Brothers were nearly as successful with females, standing first and second for cows, first for herd and winning the silver medal for best female in the class. The ring of cows was exceptionally fine and was made up of a round dozen of huge-uddered matrons, making it interesting for the judge, who must have felt his position a responsible one, but Cornelia Tensen, of the Churchville contingent, claimed his attention and won the red ticket, a mark of honor she well deserves, not only for her good looks but for her noble record of 81 lbs. of milk per day and of 19 lbs. of butter in a week. Jungsta Aggie, of the same herd, won a worthy second, and Mr. Stevenson's Johanna Tensen an excellent third. Mr. McNiven's Maud Tensen, of the same family as the first prize cow, and bred by the Messrs. Smith, was well worthy of the highest honors in a good ring of three-year old cows. She is a model cow in all that goes to make up a show cow, and a practical worker at the pail as well. The best prizes in this class seemed to go in groups, Mr. McNiven being as successful in the heifer sections as Messrs. Hallman and Smith Bros. were respectively with bulls and cows, for he had the honor of carrying out the red ticket in four consecutive sections with as pretty a bevy of belles as ever graced a show ring in Toronto. The call for herds brought out three grand collections, the first prize going to the Credit Valley herd of Smith Brothers, second to Hallman & Co., and third to Messrs. McNiven. The medal for best bull and four of his progeny was awarded to Hallman & Co. for Netherland Statesman.

## POULTRY AT THE INDUSTRIAL.

The show of poultry was the best ever shown at a Toronto Industrial, so say competent judges. The principal exhibitors were Messrs. Bogue and McNeil, of London; Main, Boyne; Costigan, Hamilton; H. H. Wallace, Woodstock; Smith, Fairfield Plains; Hodson, Robertson, etc. There were 487 exhibits in old birds, about the same number in young, making 974 in all, 400 pigeons and 50 rabbits, also some fine specimens of golden pheasants. The following is a summary of the entries:—

Dark Brahmans, 12; Light Brahmans, 20; Buff Cochins, 15; Partridge Cochins, 20; White Cochins, 5; Black Cochins, 6; Langshans, 19; Dorkings, 12; Houdans, 10; La Flech, 4; Crew Cocurs, 3; Wyandotte, 21; Plymouth Rocks, 28; Dominick, 2; B. B. Game, 17; Brown Game, 4; Duck Wing Game, 6; Pile Game, 13; Indian Game, 8; any other variety, 7; Hamburgs, 37; Red Caps, 8; Black Javas, 10; any other variety, 2; White Leghorns, 12; Brown Leghorns, 16; Black Leghorns, 11; Black Spanish, 14; Andalusians, 6; Black Minorcas, 15; White Minorcas, 4; White Crested Black Poland, 4; White Poland, 6; Silver Poland, 4; Golden Poland, 5; Buff Laced, 4; any other variety, 4; any other variety fowls; B. B. Red Game Bantams, 13; Duckwing Bantams, 6; Pile Bantams, 13; Black Bantams, 4; Silver Bantams, 6; Japanese Bantams, 4; Pekin, 16; Polish, 4; any other variety, 6.

The show of turkeys, geese and ducks was magnificent especially the latter, Mr. H. H. Wallace, of Woodstock, showing the largest Pekin ducks I ever saw imported. Mr. Hodson, of Brooklin, showed very fine Toulouse geese, and Mr. Bell, of Banda, and Main, Boyne, superior turkeys. Mr. J. Robertson, Guelph, showed a very pretty poultry house. Mr. J. D. Robertson, Guelph, has carried off first prize at the Industrial for two years for Black Javas, and has bred them for twelve years. He bred all the birds that carried off the prizes this year. Something extraordinary.

## TRAVELLING DAIRY.

"And this is the Travelling Dairy of which we have read so much, is it?" was the query that was frequently put to Prof. Dean and Mr. Brown by the many who visited the tent at the Industrial that was erected between the main



building and agricultural hall for the accommodation of the working dairy. In addition to the churn, worker, printer, Babcock tester, etc., which constituted the utensils for the regular work of the dairy, there was a Laval Baby Separator, No. 2, which took the cream from the milk supplied by persons having cows at the Exhibition. This was a source of wonder to a great many who were under the impression that the only way to obtain cream was to set it in pans, pails or creamers, and allow it to stand for some time, when the cream could be secured, but not otherwise. The separator hastens the process by the application of centrifugal force. The mode of operation was to obtain a quantity of milk (100 to 200 pounds) from the herdsmen, and at 10 a. m. to run this through the separator. The cream was immediately cooled to 40 degrees by having the cream can packed with ice, which insured a speedy cooling. The cream was allowed to stand at that temperature for one hour, when it was heated to 63 degrees, and two per cent. of thickened skim-milk was added to it to hasten the process of ripening. The skim-milk was prepared by heating about one-half gallon of the separator milk to 90 degrees, and placing it in a Boyd fermenting can, and at the end of twenty-four hours it would be thick. About two inches of the top of this was skimmed off, and then a sufficient quantity of it put through a fine strainer so as to break it into small particles that it might be the more evenly distributed through the cream. At the end of twenty-four hours it was found to be in just the right condition for churning.

Beside the cream separating in the forenoons, there was also milk testing by the Babcock method. Great interest was taken in this. A number of breeders brought samples of their cows' milk to be tested. To show the value of this tester, one illustration will suffice. One man brought samples from two cows in his herd, one of which showed 2.5 per cent. of fat, and the other 6.5 per cent.—Here was a difference of 4 per cent. in the two cows of the same breed. The lesson to be learned is obvious.

In the afternoons the cream of the previous day's separation was churned, washed, salted, worked and put up in tasty pound prints, thus showing those who were interested, not only how to make good butter, but also how to put it up in a neat and attractive form for market. During the whole day numerous were the questions asked regarding the whole field of dairying, showing that our people are alive to the importance of this great branch of Ontario farming. That each one might carry home something that they could refer to in case of difficulty, small circulars containing a few of the more important points to be observed in the manufacture of butter were given to all those interested in the making of a good article.

By having such exhibits at the fairs, dairymen are enabled to gain useful knowledge in the art of butter-making, as well as being encouraged to produce better stock from which to obtain the milk necessary to make butter by seeing good dairy stock. The two, improvement of stock and improvement in methods of manufacture, must go hand in hand to remove the stigma from Canadian butter.

#### Western Fair.

DAIRY DEPARTMENT.

For the first time in the history of the Western Fair did dairying and dairy products occupy anything like the prominence which the magnitude of the industry in this Province (Ontario) warrants. We can fairly congratulate the management of the exhibition upon the effort made and the success attending it, though we may find it necessary to allude to defects and offer further suggestions. This department of the exhibition embraced three features—1. Exhibits of cheese and butter; 2. Dairy apparatus (mainly for butter-making, cheese factory utensils being conspicuously absent); 3. Demonstrations in actual butter-making and lectures on dairying by the Travelling Dairy from the Agricultural College, Guelph.

The display of butter was about double that of last year, a refrigerator room with glass front being provided for its reception, but we had

looked for a larger display, as valuable prizes were offered. That more exhibits were not forward was probably due to the fact that the provision of the refrigerator room was not generally known. It was full, however, and the Fair Board will require to provide much larger quarters for next year's butter show. There were twenty-one kegs of creamery butter and seven lots of creamery prints, the balance being private dairy butter; most of the latter was in hand-made rolls, and several of the baskets and cloths were anything but attractive looking. In a closed refrigerator room, why should the rolls be secreted from view under a big towel? Private butter-makers should also learn that working up the tops of kegs or rolls into elaborate fancy designs, not only injures the grain of the butter, but really detracts from its appearance. Make the packages uniform in size and appearance and as plain as possible, using a printer, with some simple design or initials on the top. A good form is oblong. By all means let the quality tell. Flavor, grain and firm texture are the main points. With liberal premiums the butter room will require to be doubled at least in size for 1892.

There was an immense exhibit of factory Cheddar cheese, over 500 boxes being exposed to view on the shelves, probably three times that of last year. The exhibits were about equally divided between colored and white. Taken all together it was conceded to be the best display of cheese ever seen in Ontario, and in the main the quality was highly creditable to our makers. Under other conditions, some of the cheese that were not successful might have been winners. It was a severe ordeal to take a rich cheese from a cool curing room and expose it to the dust, glare and the terrific heat of fair week. A few cheeses were too highly colored, and under the trier some were found lacking in body, mainly owing to the presence of too much moisture. Makers, especially the inexperienced, must ever keep in mind that they cannot utilize whey as a substitute for butter globules in making a "fat" cheese. Milk, excessively rich in butter fat, is not an essential, as is very well known in the production of fine cheese; furthermore we have observed whey coated with butter in factories at a time when, by the inspector's test, the milk did not average 3.50 per cent. fat; more of that fat should have been incorporated in the cheese. It would, under proper manipulation, have made a richer and better cheese. Besides this, it costs the patron money to produce butter fat. It means good breeding, or selection of cows; good feeding and good general treatment. We are satisfied that thousands of dollars' worth of fat is annually run into the whey tanks of Ontario and is absolutely wasted. This should not be so. It is not fair to our dairy farmers, and makers must set themselves to stop this leakage. Some are now advocating setting at a lower temperature, say about 80 and raising to about 86, leaving the curd longer in the whey, the theory being that raised to a very high temperature, as is sometimes the case, the fat will melt and inevitably be lost, besides taking more milk to make a pound of cheese than is necessary. We recommend that this "low heating" process be carefully tested, and if there is anything in it, that our dairymen should utilize its value. We regret to hear that in some districts there has been considerable adulteration, over 100 patrons having been fined from \$5 to \$40 and costs for skimming, watering, or keeping back strippings. Factorymen and makers would do well to keep a Babcock tester in the factory, and being ready to use it any minute the effect would be salutary upon would-be dishonest patrons. Several of the cheeses shown were not finished as they should have been for show cheese, the bandages being untidy and much discolored.

In apparatus, the main feature after the butter-workers, printers and churns, were the Babcock testers, for showing the percentage of butter fat, and the De Laval and Alexandra hand cream separators. The latter is the British machine that beat all competitors at the Royal Show of 1891, and was never before seen in Canada. The principle of its construction was very simple and admirable in every respect. The one shown would turn very easily, and separate over 200 lbs. of milk per hour, and do it thoroughly, for the

staff of the Travelling Dairy, who were present, tested the skim-milk and found that it contained less than one-fifth of one per cent. of fat. It is a lower priced machine, too, than the De Laval shown, but of less capacity. Where plenty of milk is available within a reasonable area, farmers would do well to put in a power separator and run a small creamery. There is no reason why many cheese factories might not be run as winter creameries.

The Travelling Dairy sent out by Hon. Mr. Dryden, Minister of Agriculture for Ontario, and President Mills, of the Agricultural College, occupied a raised platform in the centre of one end of the dairy hall, and proved to be one of the most interesting features of the fair, crowds of farmers and their wives pressing round every forenoon to witness the cream separation and milk testing, and in the afternoon, to see the cream churned, the butter worked, salted, and put up into neat packages.

Addresses were given by Mr. W. J. Palmer (in charge), Mr. Rogers, the butter-maker, and President Mills. With the temperature of the hall at about 80, even the most critical butter-makers of Westminster, Lobo and other townships were free to admit that the young men "did up beautifully." They should have a separate building, however, with seating capacity in amphitheatre form, for at least 150 or 200 persons, and if the idea is continued such provision should be made for next year. The Travelling Dairy has become so popular that there are now probably 100 applications ahead from different sections for their services. In fact, President Mills had to organize two sections—that under Mr. Palmer coming to London, Prof. Dean having gone to the eastern part of the province.

#### ONTARIO AGRICULTURAL COLLEGE EXHIBIT.

The exhibit from the Agricultural College Experimental Station, Guelph, was the same as exhibited at Toronto, and was certainly one of the neatest, largest and most instructive displays to be found at the Western Fair. It was situated on the south side of the dairy hall, and extended from floor to rafters, and along the side of the building for a distance of about fifty feet. Upon the wall space, which was all covered with black cloth, were most beautifully arranged in form of circles, semi-circles, triangles, etc., about three hundred varieties of grain in the head, all of which were grown at the Guelph farm during the present season. These grains, being arranged as they were, in such perfect order, and possessing a light golden appearance, showed off handsomely in front of the dark background, and made a display long to be remembered by the many thousands whose privilege it was to see it at the great shows just closed. A little to the front, and lower down, were shavings of various sizes and shapes, covered with cambrics of lighter shades, and holding some five hundred glass jars of threshed grain. These mostly represented this season's growth, but a few were the best varieties of grains as directly imported during the past four years from different parts of Europe, Asia, Africa, Australia, New Zealand and the United States. The exhibit consisted of sixty varieties of winter wheat, seventy of spring wheat, seventy of barley, one hundred and twenty of oats, forty-four of peas and eighty-six of corn, making in all the grand total of four hundred and fifty varieties, a collection, which is, perhaps, unsurpassed on the American continent at the present time as regards both number of kinds and desirable varieties for use in general farming.

We are informed by Mr. C. A. Zavitz, formerly from a Middlesex farm, who graduated at the Agricultural College in 1886, and has since been the experimentalist at that institution, that many of the imported varieties are doing remarkably well. That in a number of instances they considerably surpass the Ontario varieties, after three or four years' trial side by side. Some of the best yielders of both the imported and Ontario varieties are as follows:—

SPRING WHEATS.—Imported—Pringles Champion (Germany), Herison Bearded (France) and Holben's Improved (Germany). Ontario—Red Fern, McCarlin and White Russian.

FALL WHEATS.—Imported—Dividend, Squar



Head. Ontario—American Bronze, Surprise and Canadian Velvet Chaff.

OATS.—Imported—Joanette (France), Siberian (Russia), and White Tartarian (England). Ontario—Magnet, Rosedale, Black Tartarian.

BARLEY.—Imported—Maudscheuri (Russia), Guymalaya (Sweden), Highland Chief (U. S.) Ontario — Baxter's six-rowed, Imperial and Scotch Improved.

PEAS.—Ontario—Mummy, Prussian Blue.

CORN.—Mammoth Cuban (U. S.), South Dakota Dent (U. S.)

A bulletin will likely be published during the winter giving full particulars regarding yields, weight per bushel, etc., of the leading varieties. It is very important that these results be published early in the month of January, if not before, that they will give the best results for both farmers and seedsmen. We would suggest that the results of the two hundred varieties of potatoes and roots grown at the farm during the past season be published in bulletin form, that they may reach the farmers much earlier than last year.

We are pleased that such a large amount of thoroughly good work is being done at the College and Station, and also that the farmers of Ontario are realizing more fully year by year the great advantage this work is to them in their farming operations. Mr. Zavitz tells us that his department has received during the past month upwards of twelve hundred letters of enquiry from farmers over the province, and that he and Mr. Soule, a College student, who assisted him in putting up the exhibit, were kept very busy at both the Toronto and London exhibitions in answering questions regarding the best varieties of grain for Ontario, the course of studies at the College, the cost of attendance for a farmer's son, etc., etc. Never before has there seemed to be such a deep interest taken in the institution. President Mills may well feel proud of the splendid positions which the College graduates are now filling in Canada and the United States as farmers, professors, etc., and he and the Minister of Agriculture may well be congratulated by the farming community of Ontario for the genuine work being done on their behalf at the Experimental Farm. About fifteen thousand farmers visited the institution during the past season and witnessed the work that is being done. The roads are becoming model roads. The farm is now practically clear of foul weeds, and the farm proper has been made to pay its way, with a fair margin of profit. Over one thousand plots have been used for experiments at the Station during the present year, covering an area of nearly one hundred acres. Material has been sent out for over twenty-five hundred plots to farmers over Ontario, and no less than one hundred and sixty animals have been handled in experiments during the past twelve months.

#### The World's Columbian Exposition.

In other columns will be found the rules which are to govern the live stock exhibits at the Columbian Exhibition to be held in Chicago in 1893. The prize list is also given.

There are a few points to which we would call the attention of the Minister of Agriculture, the Secretary of Agriculture and Arts Association, and the breeders of live stock, viz.:

It will be noticed that in section five, article seven, all Percherons exhibited must be registered in the Percheron Stud Book of America or in the French Stud Book. Canadians have a Percheron Stud Book, edited in Montreal by Mr. M. R. Auzias-Turenne. The Honorary President of the society, which controls this record, is the President of the Council of Agriculture for Quebec. The Hon. M. Louis Beaubien is the active President. These gentlemen should at once take steps to have the Canadian Percheron Stud Book recognized. Clause eight of section five does not recognize the Canadian Shire Stud Book, edited by Mr. Henry Wade, Secretary of the Agriculture and Arts Association of Ontario,

by which association the volumes are published, though the record is controlled by the Canadian Shire Breeders' Association.

Clause fourteen in the same section precludes all ponies over 46 inches in height, therefore we may expect only toy ponies to be shown at Chicago. This class should have been divided into two sections, one for ponies under 12 hands, and one for such as are over 12 and under 14 hands, or else a class should be made for Cobs, in which should be shown such as are over 12 and under 14 hands. There are many handsome ponies in England and Canada, which, by the present rule, would be entirely debarred from showing; these, too, are the most useful and high priced.

In section seven, class seven, the Canadian Lincoln record is ignored, though this is established on a much better basis than the American book. In clause nine the American and English records for Dorset Horns is only recognized, yet all breeders of this variety of sheep know the Canadian Dorset Horned Sheep Register, also edited by Mr. Wade and controlled by the Dominion Sheep Breeders' Association, is the oldest work of the kind in America or Europe, and the one recognized by all American breeders.

In section eleven, which is devoted to Swine, American records are only recognized; therefore all animals must be registered in them before being eligible to compete at Chicago. This certainly is an injustice to Canadians, as we have a number of carefully edited records for the various breeds of Swine, and Canadian breeders as a rule do not register their stock in the U. S. A.

There is as yet no class for Tamworths, a most promising breed recently imported to America from England.

Doubtless if the above facts are laid before the authorities of the Exposition due recognition will be given Canadian records. Those interested should take steps at once to have these matters properly adjusted.

#### Detroit Exposition.

The third annual exhibition, which was held at Detroit from August 25th to September 4th, was hardly equal to that of last year.

In the live stock classes Canada was, as usual, well represented, and it is needless to say a fair share of the prize money crossed the line.

The following is a short description of the principal awards made to Canadian stockmen:

In the class for thoroughbreds the first place in the aged stallion class went to Ranelagh, by Creemorne, owned by J. B. Martin, London, Ont., a grand big horse, standing 16.2 hands, and showing any amount of bone and substance, second going to Raber, by Hyder Ali, owned by S. White, of Windsor, Ont., who also took several prizes on thoroughbred mares and standard bred horses, while Judge Curtis, owned at Aylmer, Ont., came in third.

The herd prize for Clydesdales went to Bonnie Doon, owned by J. T. Hurst, Wyandotte, Mich., but imported by Patrick Curtin, St. Marys, Ont., who also took 1st in two-year-old stallions. In the aged class, N. Norton, of London, took 2nd place; John Duff, of Everton, 3rd; John Gilmour, 4th, and Messrs. Gillson & Essery, 5th, the latter firm also capturing 2nd and 3rd in two-year-old colts, 1st in yearling fillies, with a nice sweet filly by St. Regulus, and 5th in aged mares—a total of five prizes out of six head exhibited.

Mr. John Hurst, who has purchased almost all his stock from Mr. P. Curtin, was very successful in the classes for colts and fillies, as was Mr. John Gilmour, who is well known in Clydesdale circles in Ontario.

We cannot pass this class, however, without a comment on the extraordinary decisions arrived at by the judge, who, in the opinion of almost every horseman present, was either utterly incompetent or else wilfully partial towards certain exhibitors, e. g., in the aged class for stallions, it was the unanimous opinion of the spectators,

and indeed of almost all the exhibitors, that Mr. John Duff's well-known horse, Reform, should have been placed first instead of third, while Messrs. Pascoe & Farrel's Custodian, which was unplaced, was certainly deserving of a ticket, very inferior horses having been placed ahead of him.

As usual, Canada was strongest among the horses in Clydesdales, but although there were no Canadian exhibitors in Percherons, Shires, or Carriage horses, we cannot pass these classes without mentioning the capital exhibits made by Messrs. Burgess Bros., Winona, Ill.; the Cleveland Bay Horse Importing Co., Paw-Paw, Mich.; and Messrs. Farnum, of Grosse Isle, and Senator Palmer, of Detroit.

Messrs. Burgess made a grand display of Shires and Hackneys from their noted stud, winning the following prizes:—Shires, aged, 1st and 3rd; three-year-olds, 1st, 2nd and 3rd; two-year-olds, 1st, with their American bred colt Winona Albert, by Lothair, a worthy son of a famous sire. Yearlings, 1st. Shire Mares, aged, 1st and 2nd; two years, 1st and 2nd, while their two mares, English Trust and Shot Rose, won 1st as a draft team against all draft breeds.

In Hackneys, they were equally successful, winning 1st in their classes with the four-year-old bay Perfection, and the two-year-old chestnut colt King of England, by D'Oyley's Confidence. The latter we have no hesitation in pronouncing one of the best colts of his age that has crossed the water, another get of Confidence's, the black mare Black Queen, winning 1st in the aged mare class.

In the Cleveland Bay class, no less than thirteen prizes went to the Cleveland Bay Horse Importing Co., of Paw-Paw, Mich., of which seven were firsts, while in the Percherons and French Coachers Messrs. Farnum & Palmer divided the honors, Mr. Farnum showing in all forty-one head of Percherons, French Coachers and Exmoor Ponies, and winning a big share of the honors in these classes, while Senator Palmer's Percherons carried away no less than eighteen prizes.

In the cattle classes there were, of course, no exhibits from Canada, owing to the strict quarantine imposed upon all cattle crossing from the United States to Canada. The exhibits in the various classes were very good, that of Holsteins especially, while the Red Polls, a breed so far unknown in Canada, were especially deserving of attention. In this class Mr. W. P. Crouch, of Randolph, Pa., made a very fine exhibit from his well-known herd.

In sheep the Dominion was represented by the following breeders:—Southdowns—Messrs. Jno. Jackson & Son, Abingdon, and T. C. Douglas, Galt, who divided the whole prize list between them, Mr. Jackson being especially successful, his last importation from the Ellis flock winning everything they competed for. Shropshires—In this class Mr. W. H. Beattie was the sole representative, but he succeeded in securing the following prizes against strong competition: 2nd on shearing rams and ram lambs; 1st and sweepstakes on shearing ewes; 2nd on ewe lambs, and 1st on pen. Longwools—In this class the veteran importer, Jas. Main, of Milton, and Messrs. H. Crawford & Son, of Canboro', swept the board. Horned Dorsets—Messrs. Tazewell & Hector, of Pt. Credit, made a very fine exhibit in this class, among their lot being the recently imported pen of Royal winning ewes.

The display of implements was very good, that of the American Harrow Co., of Detroit and Windsor, Ont., being especially worthy of notice. This firm manufactures what is known as "The Gale Sulky Harrow," an implement that combines in itself a broadcast seeder, a spring-tooth cultivator and a bean harvester, together with several other attachments, among them being a tooth especially designed for eradicating thistles. While in Detroit we paid a visit to the company's factory, and were shown all over the works, being given every opportunity of examining the materials used. On the fair grounds we heard numerous voices testifying to the merits of this new applicant for favor from the tillers of the soil, and we would advise our readers to look up the company's advertisement, which will be found in another column.



**Breeze Lawn Shorthorns.**

Our sketch from life this month, by Mr. C. W. Young, is of a trio of heifers, representatives of three different families, in the herd of Sharman & Sharman, of Souris, Manitoba.

**The Eastern Townships Exhibition at Sherbrooke, P. Q.**

The success that has attended the annual exhibitions held at Sherbrooke must be attributed in a large measure to the energy and zeal of the Board of Directors who originated and carried it forward to its present high position, and which, in some practical points, are in advance of shows that assume more pretensions.

It has been the aim of the management to make their exhibition as educational as possible in character, and in this they have spared

beautiful specimens of which were shown by Hon. H. M. Cochrane. In this latter class some half-bred Hackneys, sired by the imp. Hackney horse Fordham, were much admired, and if our farmers were to breed more of this class we should hear less about horses being a drug on the market.

In Clyde stallions the grand horses of Mr. Robert Ness, Howick, described in other columns, carried all before them, taking first and second in both aged and three-year-old classes, and first in two-year-old, while a yearling, owned by Thomas Irvine, Montreal, took first in his class.

In the brood mares Thomas Irvine, H. D. Smith and R. H. Pope carried winning colors.

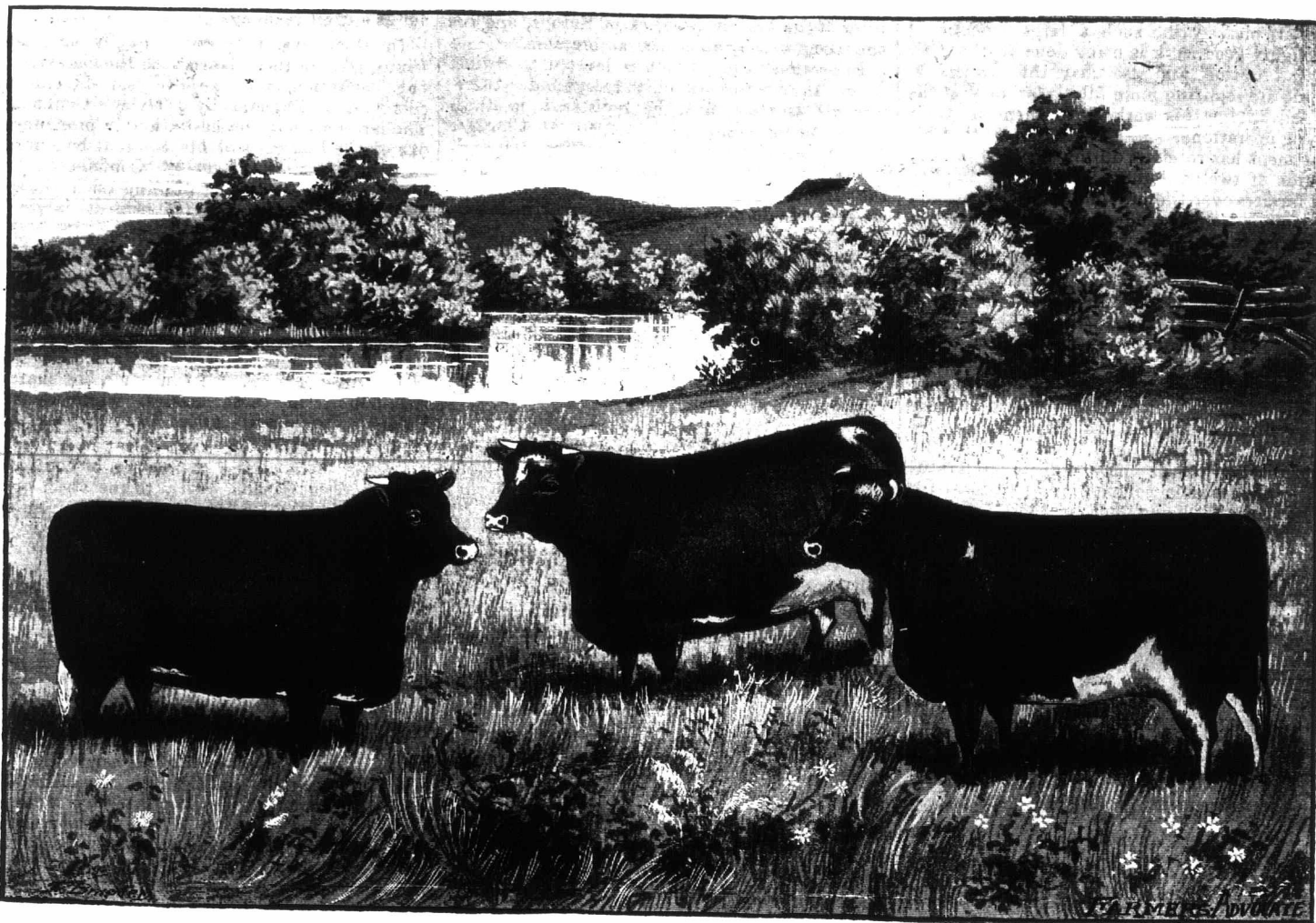
In Percherons the Haras National had two winners.

The dairy cattle were exceedingly well brought out, the Ayrshires of Mr. Thomas Irvine, Montreal, and those of Mr. R. Robertson, Howick, being especially good. Some good cows were shown by Messrs. George Davidson, Fairfax, and Hale, Sherbrooke.

The Jerseys were a particularly good lot. The herds of Messrs. Dawes, Lachine; Hon. H. M. Cochrane, Hillhurst; Mr. H. D. Smith, Compton, all carried winning cards, the former winning the herd prize.

Sheep were not a large exhibit, yet some good Shropshires were shown by Mr. G. W. Fuller, Capleton, and Hon. H. M. Cochrane, and Leicesters by R. W. Frank, Kinsbury; B. C. Howard, Applegrove; George, Davidson, Fairfax; and some excellent Southdowns by Mr. Guy Carr, Compton; A. E. Humphrey and T. S. Humphrey, both of Dixville.

A most interesting feature in the show was the working dairy under the direction of Prof.



BREEZE LAWN SHORTHORNS, PROPERTY OF MESSRS. SHARMAN & SHARMAN, SOURIS, MAN.

neither trouble nor expense. Among the features not generally in vogue they have adopted the single expert judge system in most of the classes, those for this purpose being brought from long distances. This has the effect of giving more satisfaction to exhibitors, while those on the outlook for more knowledge can learn much from a well qualified judge.

Although much of the stock on exhibition was not in the training that is generally seen at some of the exhibitions, still the grand pasturage with which the eastern townships abound has carried the cattle into capital form, beyond which it is not in the interest of breeders to push them.

A large share of the light horses were standard-bred, a class being purposely made for those holding certificates, while a roadster class was also included, as also were Hackneys, some

In coachers the French Coacher owned by the Haras National won in the aged class, while the Yorkshire horse shown by Mr. Robert Ness, took the red in the three-year-old class, and also sweepstakes.

Shorthorn cattle were not in high show condition, most of the cattle being brought straight from the pastures. Some useful cattle were shown by J. S. Mair, Howick; Mr. John Racey, Lennoxville; Mr. Alton Hodge, Eaton; G. W. Chaddock, Cookshire.

In Herefords the herds of Mr. H. D. Smith, Compton; Hon. H. M. Cochrane and Messrs. Dawes, Lachine, and a few young things from the herd of R. H. Pope, M. P., shared in the prizes offered, the former winning the herd prize.

In Polled-Angus R. H. Pope, M. P., and Messrs. Dawes were the principal exhibitors, the former winning the herd prize.

Robertson, of the Ottawa Experimental Farm. As special prizes had been offered for the milk and butter tests of herds of ten cows, also four and single cow tests, the supply of milk was large enough to keep a staff of experts busy on this work of testing and sampling, as well as making butter and cheese. As all the modern dairy appliances were forward, such as cream separators, Babcock milk testers, butter workers, etc., the crowd that was constantly in attendance showed the interest that both sexes were taking in this part of the show, a grant for this purpose having been made by the Ottawa Government, and a new and very suitable handsome building erected on the grounds. This building was nicely decorated with silage corn, and hung with mottoes, such as the following:—"Canada Leads the World in Cheese," "Best Farm Policy—Butter, Beef, Cheese and Bacon," "Winter Dairying Pays the Best," "Nine Millions of Cheese Exported Yearly," the whole forming a novelty which the visitors showed their appreciation of by crowds that gathered around this part of the grounds.



## Garden and Orchard.

### Farmers as Fruit Growers.

BY G. W. CLINE, WINONA, ONT.

Why is it that farmers, as a rule, are so careless in the matter of growing enough of small fruits for their own use? There are none that enjoy them better than farmers where they get them, but how few spare the time or take the trouble to grow them on cultivated soil; they may possibly have a few berries in the fence corners or old choppings and pastures, which their wives and children pick, but not enough for the whole summer and winter seasons. Now, I claim, that there is no farm where they can grow potatoes or corn enough for their own use, but can grow plenty of all the small fruits, such as strawberries, raspberries, currants (red and black), gooseberries, and also the blackberry, or, as many call them, thimbleberry, and one-half acre of ground will grow enough for use every day in the year, and some to spare for their less fortunate neighbors. This is the time to prepare the ground for planting next spring. Choose a piece that you think is good for potatoes or corn, and perhaps you can choose one that has some protection from the strong wind and frosts in winter and spring, which are as bad for strawberries as they are on fall wheat or clover by heaving out the plants. Plough the ground deep and manure well, then keep soil well cultivated or ploughed to keep down all weeds, and ridge up in about twelve-foot lands if the soil is very heavy or not drained; or if it is soil that does not dry early in spring a good plan is to ridge up in narrow ridges like for roots, then in spring they will harrow down very fine for planting, which should be done early as possible to insure the plants a good start before dry weather sets in. The proper distance for planting is, for strawberries, rows from three to four feet apart, and plants one to two feet apart in the row. I usually, for market purposes, put my rows four feet apart, and plants two feet in the row. The best running kinds, like Crescent Seedling and the Wilson Albany, require to be nearer together, being poor runners on most soils. The rows of red raspberries, black cap, red and black currants and gooseberries should be from six to seven feet apart, and three feet to four in the row. I also advise, in laying out a small piece for a farmer's fruit garden, to make the rows not less than from ten to fifteen rods in length for convenience of ploughing and cultivating. For the grower who intends doing a market or shipping trade, I advise planting red and black currants and gooseberries five to six feet apart each way, and then cultivate both ways, as being much easier kept clean, and giving better cultivation for dry weather. Planting: I always, on my soil, run out furrows for planting everything in the fruit line from the strawberry to the fruit tree and grape vine, and find it much the best and easiest for all planting on my soil, although on a light sand a spade is, I believe, a little easier on the man, but harder on the boy who has to do the stooping to put in the plants, but, then, some think boys have no backs to hurt. For strawberries we run a furrow about two to three inches in depth, and put the plants along the land side, spread the roots a little, and cover in some with the hands, then come along after and finish filling up with the hoe. With the other

berries and currants we plough rather deep, what we think is deep enough to put in the plants as deep as they were before digging them; put a little earth around them with the hands, then fill up as before with the hoe. This is all very easy to do, for if the ground is in good order two men and a team, and perhaps a boy to drop plants, can plant their half acre mixed up of all the different varieties mentioned in one day, and taking 43,560, the number of square feet in an acre, it is no trouble to figure out the number of plants of the different kinds required, and, as for the kinds to plant, do not run away with the idea that you have to buy all the new varieties to get plenty, for if you do you will likely not get much profit, as there are but few of the new varieties that have come to stay. There are plenty of the older kinds that are good growers and yielders, and cheap to buy, such as Wilson, Crescent and Capt. Jack in strawberries; Marlboro and Cuthbert in red raspberries; Tyler and Gregg in black caps; Raby Castle and Cherry for red currants; Black Naples for black currants; Houghton Seedling and Downing for gooseberries; Snyder, Taylor and Western Triumph for blackberries. The next winter after planting cover over the strawberries with some rather coarse manure as a mulch, if ground is not too rich, as free from weed seeds as possible, or with straw, if ground is very rich, but do not put on enough to smother plants. In the spring rake off between rows and pull out all grass and weeds. After picking cultivate and hoe well, and keep clean for another crop. The raspberries and currants should have a good fork full of manure on each side of plant in the fall and be kept clean every season, if the best results are wished, as the rows will soon become filled with grass and weeds, and of course the fruit will become small and bushes stunted. The whole cost for plants for half an acre should not be over \$20 to \$25 at the present price of plants, and, with the exception of the strawberries, will last for years by proper attention. I wish to add, in conclusion, that for fear that my writings may be taken for those of a novice, that I have grown all kinds of fruit for market for nearly twenty years, and have had considerable experience during that time in the newer varieties of fruits coming out every year, both in small fruits and the larger, having over 10,000 pear and plum trees in orchard, nearly forty varieties of plums, some thirty varieties pears, over forty-five varieties grapes in seventeen acres. I have always tried to give information that would be of benefit to those who are not in fruit growing, and have induced a great number to plant who thought they could not grow fruit at all. Being a grower, and not in the nursery business, I have no axe to grind. I will follow this with other subjects of interest to all who wish to grow fruit in a small or large way. Any person wishing information by mail will please enclose stamps for reply.

Economy of labor and of resources is the first great requisite in running a farm as though it had a business head. Let us have renewed efforts to make the farm profitable, and not stop here, for we should not be contented till we have made it beautiful, and a healthful place in which to live.

When a horse is taken from the stable he should not be allowed to go at a fast pace for the first mile or so. The horse's stomach is generally full then, and driving may injure his wind and bring on heaves.

### Why Some Apple Orchards do not Bear.

BY F. G. H. PATTISON.

There are a good many apple orchards throughout Ontario which have attained full bearing age and which appear healthy, and yet either do not bear at all, or, at all events, do not produce the crops they should. To enumerate some of the causes of this non-production is the object of this article. And first of all, we may take it as a general rule that if the climate and soil be suitable, and the tree of a good variety, it must bear if rightly treated, just as grass or grain must grow under favorable conditions; if it does not, it is the treatment that is at fault, and this, by means of a little patient experimenting, combined with observation, can generally be amended without resorting to the heroic treatment of tearing the trees out by the roots, a practice which, I am very sorry to say, has been adopted to some extent in this locality.

Undoubtedly the leading cause for the non-productiveness of apple orchards is starvation. The land on which they are grown is cropped to death, and in addition, little or no manure is applied to it. It is not too much to say that the average farmer who plants out an apple orchard treats the land afterwards precisely as if that orchard did not exist, and from the beginning to the end of its unhappy life takes wheat, rye, oat and other crops off the land, till the wonder is, not that the trees do not bear, but that they live at all. Now, the fruit crop ought to be the main thing to be looked for from an orchard, and to that all other crops should be subservient.

The land cannot produce fruit and in addition wheat, oats, or rye; consequently, if a crop of these be taken off, it is simply done at the expense of the trees. A leading American horticulturist has given it out as his opinion that three crops of rye will ruin any orchard. This is undoubtedly true; but more than that, it ought to be understood by farmers and others possessing apple orchards, that never, from the time of planting till the trees are past bearing age, should a single crop of either wheat, oats or rye be taken off the land under any circumstances.

Are we then to lose the use of the land for any other crop from the time of planting till the trees become old? By no means. There are several crops that can be taken off the land, not only without a bad, but actually with a good effect, particularly if manure be freely applied as well. For example, roots of any kind, corn, peas, buckwheat and hay may be grown in rotation. Barley may also be used as a crop to seed down with, and after the trees have attained some size the orchard may be laid down to pasture for a year or two, probably for hogs or sheep. But this treatment must be accompanied with plenty of manure, which should be applied every year in moderate quantities; if not that, then every second year in large quantities, sometimes as a top dressing, and sometimes to be ploughed under. With this, as with most other farm crops, little or no manure means few or no apples, plenty manure, plenty apples. If manure is not available, then by all means give clean cultivation, and do not attempt to take any other crop off the land, otherwise I think a rotation is best.

There are some orchards, however, which are not overcropped and which are well manured and which still do not bear as they should.



Such are usually found, I think, in a deep loamy soil, and their foliage and wood are very rank. When this is the case it would be well to lay the orchard down in sod for two or three years, and head the tops well in. This treatment will be almost sure to produce fruit in such a case. Trees, either young or in their prime, should never be cut down till every other treatment has been tried and failed, otherwise all the previous labor and expense of planting etc., as well as some years of waiting, goes for nothing, and is worse than wasted. The bark louse is, I think, answerable for the barrenness of some orchards. I see a great many of these, as I go about, in a sad state from the ravages of this little pest, their bark rough, peeling and cracking, not only on the main stems, but also on the branches. This seriously affects the vigor of the trees and consequently their productive qualities, and the remedies for it, which are simple and easily applied, are too often utterly neglected.

A wash of soft soap and washing soda mixed with water, or of soft soap, carbolic acid and water, or simple whitewash applied with a brush to the stems and main branches of the trees, about the beginning or middle of June, will be quite effectual, and will, in addition, stop the working of the borer who is answerable for some unproductive orchards. Want of pruning is another reason, and also, but rarer, over-pruning, the latter being almost worse than the former for the orchard. These are the chief reasons why apple orchards do not bear, and if your orchard does not bear, brother farmer, it is probable it is suffering from one of these causes viz., either over-cropping, under-feeding, bark louse or borer, under-pruning or over-pruning.

Orchards, too, should not be allowed to over-bear; it pays to thin them when they are over-laden. If not, the next year they will bear little or no fruit, and in addition, their vitality will be lessened for several years to come. Except in the case of a frost or general blight, if your orchard does not bear, brother farmer, depend upon it, in nine cases out of ten, aye! in ninety-nine cases out of a hundred, you are the person to blame for it.

#### Marketing Our Apples.

BY G. C. CASTON.

The apple crop of Ontario this year, though not likely to be nearly up to the average as regards quantity, bids fair to be the best in point of quality that we have had in several years. There is a certain time when apples should be pulled for market. They make the most rapid growth when nearing maturity, so that if pulled too soon you lose much in size, and the fruit will be insipid. They should be allowed to attain their full growth, and when the seeds are black and the skin well colored up they are fit for market. On the other hand, if allowed to become too ripe decay sets in very rapidly. I have had good results in marketing them in baskets. The baskets (about 12 qts.) cost about 4 cents each, and a barrel of apples will fill from 8 to 10 baskets, so that the cost per bbl. for baskets would be about 35 cents. They usually range in price from 30 cents to 45 cents per basket in the city markets, so that if freight is not too high the net results will be very fair.

The baskets may be covered with lenco. at a very slight additional cost, which gives the fruit an attractive appearance, as wooden covers will be sent with the baskets at a cost of three-quarters of a cent each. The only trouble I have found in this plan is that some apples are too large to

put three deep in a basket and allow the cover to rest on the sides, as the fruit reaches far above the edge, while two deep does not fill the basket quite full, so we must put them in three deep, and as the railway men pile them on top of each other the top row of apples get a little bruised, and this spoils their appearance, and, of course, injures the sale of the fruit. But where shelved cars can be got, or where care is taken in loading, this may be obviated.

I believe there is more profit in the early apples, including the fall varieties such as St. Lawrence, Alexander, Colvert, Red Beitigheimer and Haas, providing a good market and quick and careful transportation can be furnished for the growers, than there is in the winter varieties, as they are more productive, bear earlier, and very few of them fail if properly cared for.

Manitoba and the Northwest Territories, with their wealth of wheat fields and absence of tree fruits, should be able to absorb all the surplus apples of Ontario. There should be an interchange of products between these two provinces that would be of advantage to both. Manitoba produces the best wheat, and Ontario the best apples in the world. The far-famed Red Fife wheat from the Northwest prairies is bought at a high price by Ontario millers with which to make their strong bakers' flour, and we ought to send them in return our fine Ontario apples, which have as great a reputation as their hard wheat, and which they cannot produce themselves.

It is estimated that the wheat yield of the Northwest will be so great as to require ten trains of cars daily for five months to move it. If this statement is correct there are two features in connection with it which should be advantageous to the Ontario apple-growers. First, a good wheat crop, and a fair price for it, means money to the settlers, and all classes dependent on them, and, consequently, an ability and willingness to indulge in those fine Ontario fruits, the very thing which settlers from Ontario miss the most in their new homes, and which a bountiful crop, with good prices for their grain, enables them to purchase where the climate prevents them from growing them for themselves.

Secondly, such a number of cars will be required (over 200 per day) that many of them must go back empty, as there will, I presume, not be sufficient freight going to the Northwest for the cars to be loaded both ways. Why, then, should not the railway men give the Ontario fruit-grower a very cheap special rate on fruit, rather than haul back empty cars?

With the means to purchase freely on the part of the settlers and others, quick transportation and cheap rates, the people of the Northwest would be able to procure a full supply of fruit at a fair and reasonable price, and still leave the Ontario grower a good paying price for his fruit.

This would be a very desirable state of things, and would be of mutual advantage to the two provinces.

But there is much to be said on the marketing of fruit, and especially of apples, and many people who grow them have much to learn yet on this subject. One thing that seems hard to impress upon farmers is the necessity of culling properly. If you go on the local market in any of the small towns you will scarcely ever see a sample offered for sale that would do to ship without culling over.

Many farmers seem to think that bruised wind-falls, wormy specimens and small gnarly ones, should all go together. And yet none of these men would think of taking their grain to market without cleaning it properly. They know the buyers would not have it else. They would tell them it was not fit to ship and they could not touch it.

The man who mixes the good and bad together is always a loser. The experience of men who have grown old in the business of fruit growing is that it always pays to cull and sort properly all kinds of fruits. If the Northwest people want our apples, they want them put up in proper shape, properly selected and branded accordingly.

Mr. McD. Allen, the great apple shipper, said that when passing through Winnipeg in the fall of '89, he was really ashamed of the Ontario apples he saw there. Good, bad and indifferent were all banged into the barrels together, under the impression that anything in the shape of an apple would sell in the Northwest, where they could not grow any, and the consequence was that prices got away down below a paying figure. Whether packing in barrels or in baskets two qualities only should be shipped, first and seconds; the thirds should be kept at home. The first quality should be the choice specimens, of even size, free from fungus or worms, and in the case of red kinds, should be well colored up. They should be as near alike as possible all through the package, and should have the grower's name on the barrel or basket, and also the brand printed on it.

The second quality should be free from wormy specimens, or very small or scabby fruit. They would admit of specimens slightly affected with the fungus where the shape of the apple was not affected thereby; also undersized specimens, but not very small. They would not be an even sample like the first, but should be all sound and not bruised at all. All very small ones and specimens affected by fungus, so as to make them woody and misshapen, as well as all bruised or wormy fruit, should be left at home; the best of it may be peeled and dried, evaporated, or made into cider, and the remainder fed to stock. A small ration each day is splendid for growing pigs or for milk cows, and even for working horses, and will be eaten with a relish by the animals.

The later or winter varieties will pay well to keep, where proper storage can be obtained, till late in the winter or till spring, when prices are likely to rule much higher than they will this fall. Such varieties as Spy, King, Greenings, Ben Davis, Golden Russet, Canada Red, Seek no Further, Spitzenburg, if properly picked and handled and kept in a cool dry place, will keep till high prices prevail, with very little loss by decay.

Winter fruit, like the early kinds, should be picked just at the right time and not allowed to get too ripe, as after fruit is thoroughly ripe the process of decay sets in. In long-keeping varieties the process is slow. The aim of the grower should be to retard it as much as possible. But if the fruit is picked just at the right stage, when it has attained full size and color and the seeds are black, the process of decay will not set in so soon, and you will be able to keep the fruit in better condition, and for a longer time.



**Autumn Planting of Fruits.**

BY W. W. HILBORN.

Fall planting of fruit trees and small fruit plants should be more extensively practised than at present. There is usually more time to do the work properly, and the trees and plants make a much stronger growth the first season. This is a great advantage to the future health of the trees, and less time is required to grow them to bearing size. If a tree does not start into vigorous growth the first season, it does not usually make a strong growth the second year, hence considerable time has been lost. Select a well-drained location for the orchard and garden, and avoid, if possible, a heavy clay. If it is not naturally well drained, it should be underdrained to give the best results. Do not plough the land up in high ridges and plant on the ridge, as practiced by many, better work the land as level and flat as possible, until the planting is done, otherwise the trees are not apt to be planted deep enough. If it is desirable to plough the land in ridges, for temporary drainage, it is better to do so after the trees are planted. It should be worked down flat again in the spring to best retain moisture in the soil.

Select young trees, not more than two years from the bud, or three years from the graft, for apples, pears, plums and cherries, and one year from the bud for peaches. When older than this too many of the small fibrous roots are cut off in taking up the tree, and a weak growth is the natural result. Just before the ground freezes in the fall the earth should be banked up around each tree, to the height of one to one and a-half feet. This will prevent the trees from swaying about with the wind, protect the roots from injury by severe frost during the winter, and also protect them from being girdled by mice. This must be levelled down again in early spring. Do not on any account sow a grain crop in the young orchard. Grow corn, potatoes, or any hoe crop among the trees while young, and thus encourage a vigorous growth. When grain is sown among young trees and drought sets in early they have a hard struggle to survive, as the grain absorbs the moisture just at the time when the trees require it most, and injury must follow. Do not try to grow a grain crop in a bearing orchard, for the same reason. It is better to grow a crop of good fruit than to grow a poor crop of both grain and fruit.

Grape vines, blackberries, red raspberries, currants and gooseberries should be planted in the fall. For the best results plant as soon as there has been sufficient frost to cause the leaves to drop readily. When planted early the soil becomes settled among the roots and new ones are often pushed forth, thus giving a great advantage over spring planting. By drawing up a mound of earth around each plant they will not lift up by repeated freezing and thawing. This must be levelled down in the spring before growth begins.

It sometimes happens, in certain localities, that drought continues until freezing weather would prevent planting. Where such is the case, and trees have been procured, it is best to heel them in deep at an angle of forty-five degrees. The soil should be well filled in among the roots, and may reach up to the branches. If the soil is quite dry give them a thorough soaking-down with water, otherwise the evaporation that goes on during winter is apt to injure them very much. It is absolutely necessary that the soil should be well supplied with moisture before freezing up, to insure success with fall planting. Evaporation of the sap goes on all winter, to a greater or less degree, with the constant changing of the atmosphere, and if the soil does not contain sufficient moisture to supply the loss injury must follow.

In August number my notes on budding read:—"The sap flows upward through the bark." It should have read, "The sap flows upward through the wood, and returns through the bark."

**The Farm.**

**Spade Harrow and I X L Wind-Mill Tested.**

A year ago we drew the attention of our readers to a new and very useful machine called "Drader's Spade Harrow." When the machine first came into the market our attention was called to it by some parties who had used it, and who praised it so highly that we at once investigated its merits and went to see it in operation, and at once submitted a report to our readers in the September number of 1890. Since then results have proved the views expressed in that article to be correct. We have watched the success of the machine with a great deal of interest, and believe it is excellent as a cultivator and pulverizer. Land worked with a rotary machine which carries the ground up and lets the air circulate through it is said to give much better results than when the land is simply moved in the old way by a trailing machine. It will be apparent to thinking men that a machine revolving in the ground will draw much easier than one that trails or drags. Many of our readers have asked for a description and the price of this tool, all of whom we refer to the Wortman & Ward Manufacturing Company, of London, Ontario, the manufacturers, or Wm. Johnston, of Brandon, Manitoba, who is their representative for Manitoba and the N. W. T., either of whom will be pleased to give all the information in their power. We have been personally acquainted with the manufacturers for a number of years, and can recommend them as straightforward men. They do not make a full line of farm machinery, but confine themselves to a few special machines, which we think a very wise policy. Of their five specialties we think the Spade Harrow stands first, and Peck's I X L Wind-mill second. In order to find out just how these machines are being received by farmers, we requested one of the firm to send us original correspondence received from customers. Copies of a number of letters were furnished, from which the following extracts are taken. These will give our readers a good idea of how these machines are liked by purchasers:—

"In reply to Spade Harrow, I am entirely satisfied with its work. I know of no other implement that I could have bought which would have answered my purposes better, nor as well."  
ROBT. McEWEN, Byron."

"I have given the Spade Harrow a thorough test. I never saw any implement that left the ground in as good a state for seed. I went over ten acres in one day. The work is not hard on the team."  
GEO. OLIVER, London."

"I have used the Spade Harrow on a field of heavy clay sod, plowed when wet and baked very hard. I was surprised at the way it cut up the lumps. I know it did more for me in one day than any other cultivator I ever saw would have done in two."  
ED. HOLBROOK, Walford, Ont."

"I received the Spade Harrow all right. It works like a charm. A large number who have seen mine at work say that they will have one. I would like to get the agency."  
WM. GRIGG, Thessalon, Ont."

"I have used the Spade Harrow preparing bean ground. It works well. It will not choke or clog in wet or mucky land, and leaves no ridges or furrows."  
DONALD JOHN. ON, Chatham."

"I am pleased with the Spade Harrow. It does excellent work. I believe it has no equal."  
F. W. SCOTT, Highgate, Ont."

"My Spade Harrow works well. A number of farmers who have seen it work would like to trade me a spring tooth harrow for it. I think no one will buy a spring tooth cultivator after seeing the Spade Harrow work."  
A. HARWOOD, Hickson, Ont."

"The harrow works grandly. It beats the spring tooth or any other cultivator all to pieces. Rush forward two more. J. C. LOCKES, Meaford, Ont."

"Enclosed find thirty-two dollars for Spade Harrow. I cannot praise it too highly. It does all you claim for it, and is superior to any harrow I ever used."  
D. McCUSKER, Alfred, Ont."

"We were present at a contest between the Spade Harrow and Disk Harrow on the farm of Mr. Henry Pickits. The Spade Harrow did far the best work. It cut much deeper, and was no harder on the team, and did not ridge the ground. Henry Pigott, Nilestown; Jas. A. James, Nilestown; J. Whitehead, Dorchester; W. H. Edwards, Nilestown; J. P. Cartwright, Dorchester; W. A. Cartwright, Dorchester; S. Ralph, Nilestown."

"I am greatly pleased with the Spade Harrow. It does better work than any machine I have ever had on my land. I believe it is the best machine ever made for the money."  
S. F. NICHOLS, Lambeth."

"I have a seeder and a cultivator which I thought good, but since I saw Mr. A. Hagar's Spade Harrow work I would not be without one for double the price. I put my old machine away and got a spade harrow, and am well pleased with the change."  
A. DARRAGH, Plantagenet."

"The Spade Harrow is the best instrument for preparing seed bed I ever used."  
ISAAC STOTIKER, Pittsburg, Ont."

"The Spade Harrow is the best pulverizer we have ever used. It cleans in any kind of soil, and leaves the land in good shape for seed. It cannot be beaten."  
OTTO & J. H. RHODES, Sweet's Corners."

"Several of our neighbors want to get the I X L wind-mill. Ours works as near perfection as possible. MILLER & FERGUSON, Spencerville, Ont."

"The I X L wind-mill works to perfection. Regulates itself perfectly in the wind. The Galt mill we had on the derrick before blew off."  
DONALD JACK, Milverton, Ont."

**The Silo.**

BY R. S. STEPHENSON.

I will give my experience of the past season. My silo is built in one corner of the barn; there is about ten feet of basement, and it runs up nearly to the wall plates of the barn, making it about twenty-four feet deep and thirteen by fourteen feet inside. It is built as follows: On the two sides where there is no wall I bedded chestnut sills in the earth and packed them in well; the studding is two by ten inches and is tenoned into sills; the studs are eighteen inches apart. This silo is sided up with two thicknesses of inch lumber jointed but not dressed, and tar paper between boards. If I were building another pit I would have the lumber dressed on one side and put the dressed sides together with the tar paper between them; dressing the lumber makes it all of the same thickness and there is not so much danger of cutting the tar paper when the boards come together. I had the carpenter bevel the edges of boards about eight inches wide and nail them into the corners, this will allow the ensilage to settle better and also strengthen the corners.

The corn I grew was the large Southern Ensilage; it was pretty well matured, in fact had got too hard for boiling. We cut and filled just as the weather allowed us; some of the corn was put in pretty wet, but I could not see any difference when we came to use it. After we had all the corn in I allowed it to stand for a couple of days, and then put about a foot and a-half of cut straw on top and tramped it down well. I forgot to say that we leveled the silage and tramped it down, especially on the sides and in the corners, every two or three loads. The ensilage kept beautifully, only about two inches becoming moldy on top, and the cattle ate most of that after it was thrown out in the barn-yard. In conclusion, I may say I consider the silo a great success, and I intend putting up another at an early date. There is no doubt that the silo is the place for storing a crop of corn if you want to get the whole of it at the least expense.

The poor fellow who fails in one undertaking finds it difficult to obtain the opportunity to try again, and even if he does, he is unnerved frequently by his past failure, and cannot put sufficient strength into the new work to achieve success. He has to work against great odds and his chances of failing again increase with each failure. For this reason many fear to venture, and hence make a certain of failing, when there had been chances of success.



**How to Build a Good Ice House.**

This plan to build an ice house, I published first in 1880. I have sent out hundreds of them by request and have taken care to find out if they were good and made a satisfactory house. No fault has been found, and they are evidently complete. I am so well satisfied that I have not changed them in the least since the ones first issued. As the plans are gratis to everyone and given with the greatest pleasure, I ask this: If you build after my plan use it all through; do not make any changes, but do as the plan says. If not, have the kindness to not use it at all. I want people to have a good ice house, and know it will be good if it is built according to directions.

I have been at a good deal of pains to get from one of the best informed ice men in the United States, his ideas, and give them as the best general information that can be had.

In regard to location, have it, when possible, by itself—not in a hollow, or where water can run into it from a bank. Having selected this, prepare the bottom. If the soil is sandy or of a porous nature, it will need no drain; but if not, great care should be taken to arrange for drainage. In an ordinary house, dig a trench through the centre thirty inches wide and twelve inches deep. Fill this with loose stone to within three inches of the top, and slope all parts of the bottom to this drain. Then fill to the top with shavings and straw, covering over with loose boards. You will then have a perfect drain that will carry off all water and let in no air. The foundation is better of stone or brick; if not, set posts in the ground to build on. Set posts 6x6 at the corners and every ten or twelve feet between, filling between these with 2x4 studding set flush with the outside. Put boarding on this; on the boarding nail 2x4's, putting the outside boarding on them. This makes an air space of four inches. Now set inside another set of 2x4 studding; which will leave a space of ten inches for filling; ceil between this and fill with sawdust or shavings. Be sure it is filled solid and dry. You now have the body of the ice house. With an air space of four inches, and inside ten inches of filling, making a perfect house that will not warm through. Have the inside smooth so that the ice will settle and not catch. Make an ordinary true roof. The roof should project at least two feet, and can be of shingles or boards. The loft inside, it is well to board over, as it stops all heat from the roof. Openings to the air should be as few as possible and made to close tight.

If you follow these directions you will have a perfect house that will keep ice with a small percentage of loss. If a cheaper or poorer house is wanted, you can leave out the air space and fill solid with shavings or sawdust, but filling should be 10 to 14 inches thick. Whitewash the house; it costs but little, and will make it last a great deal longer.

In regard to filling: The usual way is to cut ice in blocks 22 inches square. If of even size, commence putting it on the edge, keeping three or four inches from the edge of the house. Set in your course. Use an ice adz and level the top, filling in the spaces. Now fill in between the house and the ice with sawdust, putting on other courses and doing the same. If the ice is cut in bad or irregular shape, lay flat, filling with pieces so as to make solid courses. The

idea is to have the ice as compact as it can be put in. When done, fill on top with eight or ten inches of sawdust, and it is complete.

In regard to the care of ice, do not neglect it. Be careful that the top is always covered. See that you do not get air holes through the sawdust, as that lets in the hot air and melts the ice fast. In regard to filling for houses: When sawdust cannot be had you can use straw, rye or oat straw being the best; but there is hardly any place but with a little care through the summer, plenty of sawdust can be had. In regard to the size and capacity of houses: They will hold the following for every foot in height, packed fairly solid and to be well frozen 14x20, five tons; 14x25, six tons; 14x30, seven tons; 20x25, nine tons; 20x30, eleven tons; 20x40, fifteen tons. This is about the capacity of houses of this size for every foot in height. The waste for a small house is greater in proportion than for a large one.

Handling ice after it is cut: When it is possible, it is the better way to build an incline from the highest point the ice is wanted in the house, to the water or ground; if to the water the lower end runs into the water. The incline should never be over 45°, as it would be too steep to work with safety. The run-way should be about 25 inches wide in the clear and 10 inches deep, the bottom made of slats so that small pieces can drop through. On one side build a foot walk with railing for the use of the one handling the ice grapple. Have openings in the incline large enough to let the cakes of ice through, and inclines from these on different levels into the house. Build all this fairly strong; brace it well so that it will stay in place. Fasten a "Top Gin" block in the upper part of the ice house far enough inside so that the ice will be pulled clear in; on the ground fasten a "Lower Gin" block, use rope  $\frac{3}{4}$  to 1 inch in diameter, attach to one end a team of horses, run the other end through the block on the ground, from there through the upper block and down the incline and fasten it to the Jack Grapple. In operating this, from one to five cakes, or whatever the horses can pull, are started from the bottom with the Jack Grapple. The man in charge of the Grapple going up the walk to steady it. When it has delivered its load he walks back carrying the Grapple with him, the man on the ground backing up the horses and bringing with him the slack rope. The ice is let through the first opening in the incline and run into the house. When the house is full to this opening, close it and run the ice in on the next.

If no incline is used, raise the ice with a pair of hoisting tongs. When ice is loaded from a pond onto a wagon, many build platforms the height of the wagon bed, making an incline from this to the water and hoisting the ice to it the same as in the ice house. When there is nothing of this kind to get the ice from the water, take a hard wood board 10 to 12 inches wide,  $1\frac{1}{2}$  to 2 inches thick and 10 to 12 feet long, at the bottom end put on each side an angle iron  $\frac{1}{2}$ x2 inches. Let this stick up ten to twelve inches. About two feet from the centre bolt a six foot 2x3 piece directly across, this is for handles for each side. Place the lower end under the ice in the water and two men to operate it will draw out ice very fast.—[B. A. Stevens.

**Forestry at the Dominion Experimental Farms.**

BY JOHN CRAIG.

Considering that the Dominion experimental farm system, as an institution, has only been in operation a little more than three years, including the work of organization, it would probably be more appropriate to speak of the beginnings in forestry rather than adopt the title laid down in the heading.

The plan of the farms is familiar, no doubt, with the majority of the farmers, but an allusion to their various locations and arrangement will not be out of place. The farms are five in number, including the Central one at Ottawa. Beginning with the Lower Provinces, one is located at Nappan, N. S. The Central, as already stated, at Ottawa. From this one the reports of the others are disseminated, in the same manner as those of the agricultural experimental stations of the United States. Going west, the next one is located at Brandon, Man.; another at Indian Head, N. W. T., and the last one at Agassiz, B. C. Brandon and Indian Head have each a section of land, British Columbia and Nova Scotia, each 300 acres; while the Ottawa farm, serving for Ontario and Quebec, has 467 acres.

The Central Farm, only beginning operations in the spring of '87, Nappan, Brandon and Indian Head following in '88, while Agassiz was not organized till '89, limits us so much on time that I cannot do more than outline experiments commenced, trusting that there may be an element of usefulness in the mere delineation.

It is evident, with such an expanse of territory, the needs are exceedingly varied, and, therefore, the range of useful knowledge to be obtained much widened. The needs of the Maritime Provinces, in forestry, are very different from those of British Columbia, while the requirements of Brandon, Man., though not distant from Indian Head, N. W. T., are by no means identical.

So far it has been the aim of the management of the Central Farm to supply such trees as are, in the judgment of competent men, best suited to the conditions of soil and climate at these different points. Reliable reports from the superintendents of the branch farms will facilitate the speedy introduction of suitable trees to different portions of the Dominion, especially to the wind swept prairie regions of Manitoba and the Northwest.

One of the permanent features in forestry on the farm at Ottawa is the planting of a belt of trees on the north and west sides, made up of different varieties grouped in blocks for comparison. Many of these clumps are planted in irregular forms, so arranged as to overlap each other which overcomes the stiff appearance given by planting in square blocks. The belt is about 150 feet wide, the first 10 rows on the west being 5 feet apart and the remainder 10 feet apart each way. This has been done to ascertain the relative advantage of close or wide planting. Careful record of the age of planting, the annual growth thereafter and such other particulars as are necessary are taken and will be reported as soon as practicable.

There are in this belt about 8,000 trees, made up of the following varieties:—Conifers, Scotch Pine, White Pine, Riga Pine, and Austrian Pine, Norway, White and Blue Spruce, Hemlock and



Arbor Vitae, European and American Larch. Deciduous trees, Red Oak, White and Burr Oak, Sugar Maple, Soft Maple, Norway Red Maple, and Negurd Maple, White, Yellow and Canoe Birch, White Elm, from Manitoba; native White and Red Elm, Rock Elm, Black Ash; Green, Red, White European Ash, Black Walnut, Butternut, European Alder, Hickory, Lees Catalpa, Japan Catalpa, Hardy Catalpa, Russian Mulberry, Yellow Locust, Honey Locust, Black Cherry, European Mountain Ash, American Sycamore, American Beech and Horse Chestnut.

Thus far it is premature to speak of results, yet failure in some cases is so emphatic as to force conclusions. For instance, the Catalpa species, not accepted, appear to be worthless, and will certainly never make timber trees in the vicinity of Ottawa. Russian Mulberry, Honey Locust and American Sycamore suffer slightly. Black Walnut promises to succeed, and we have trees three years from seed six to seven feet in height. Negurd Maple, Russian Mulberry and Yellow Locust are about equally rapid growers and lead all others in the belt, though for economic value I think with Prof. Lazenby that there are few trees equal to the White Ash. In addition to this belt another is planted with the above varieties, to which is added a number of hardy shrubs. Here the varieties are planted in rows and admit of cultivation, but indiscriminately mingled, somewhat after forest conditions, and will afford experience from another aspect. One of the initiatory steps at the Central Farm was to obtain a liberal collection of the seeds of Rocky Mountain and European Conifers. As a product from these seeds were transplanted from seed beds last spring about 175,000 plants or seedlings, made up of Riga, Scotch, Austrian Stone and Ponderosa, or Yellow Pine; Douglas, Blue, Norway and White Spruces. These will be distributed when of proper size to the branch farms and other experimenters who will give us careful returns. Our stock was also increased by importations of seedling deciduous and coniferous trees from Europe, which are being distributed to those points which seem best adapted to their culture.

In order to encourage tree growing in the Northwest Territories, the Honorable Minister of Agriculture, Mr. Carling, through the Central Farm, caused to be distributed free to voluntary applicants last spring 100,000 forest tree seedlings, 100 going to each individual, together with instructions for planting and after care. It will be seen by this arrangement that provisions were made for 1,000 packages. The applications exceeded the supply by 1,500, showing that there was no lack of interest. Each package was made up in varying quantities of the following varieties:—White Ash, Green Ash, Box Elder, Soft Maple, Hard Maple, White Elm, Honey Locust, Black Locust, Black Walnut, Butternut, Russian Mulberry, Black Cherry, Cottonwood, Sycamore, Linden, Kentucky Coffee Tree, Red Cedar and Wild Olive. This distribution covered a very wide areatory, and the results cannot fail to be valuable. In addition to this the C. P. R. gardens, twenty five in number, situated along the main line west of Winnipeg, have been supplied the last two years by collections of trees from the Ottawa farm. Further, I am happy to state that the Indian as well as police stations in the far Northwest, have been recipients for the past two years of liberal collections of the hardier

trees and shrubs from the Experimental Farm at Ottawa, with such suggestions for their care and culture as their particular locations seemed to demand.

Arrangements are being made to continue the work of distribution on a larger scale the coming year, and it is to be hoped that this slight inducement will enable and encourage settlers in the colder parts of Canada to select such varieties as are best adapted to their conditions, and assist in establishing a limited culture of fruits in sections now deemed unsuited.

An important point, to my mind, which I will mention, and one very often overlooked by northern planters, is the careful selection of the hardiest forms of each species. This is well illustrated in the difference between the Ohio Box Elder, and that grown at Winnipeg; while the former is not as hardy at Ottawa as Catalpa, the latter is one of the few trees that came through uninjured at Indian Head, N. W. T., last winter, some of the others being Manitoba Elm, Siberian Pea Tree, and the so-called Russian Wild Olive. The same is true, though in a less marked degree, of the Manitoba Ash and Elm as compared with (botanically) the same species here. While our common form was injured at Indian Head, the native of Manitoba came through in good condition. The Black Walnut of Minnesota and Dakota, and Kentucky Coffee Tree of Central and Northern Iowa, are essentially hardier than their southern relatives, and it should be our aim in this region to obtain seeds from trees at the northern limit of their native habitats.

#### Harvesting Roots.

BY R. S. STEPHENSON, ANCASTER, ONT.

As roots are a very bulky crop and require much room to store them in cellars, and as most farmers, especially those in newer portions of the country, are entirely without cellars of sufficient capacity to hold any quantity of roots, I would suggest the plan which I have found best for pitting them. I dig out trenches five or six feet wide and about six or eight inches deep, and as long as convenient, then commence hauling, and pile the turnips up as high as they will stay without rolling down, making the sides of the heap straight and even and the top as sharp as possible. I also put in ventilators every eight feet right from the bottom of the pile. I have found ventilators made out of three six-inch boards nailed together answer better than any other. Now, as to covering the pits: Lay on as evenly as possible about ten inches of dry straw, and then cover with four or five inches of earth and smooth all over with the spade. Turnips pitted in this way will come out fresher than out of a cellar. It is advisable to make the pits in some sheltered place near the barns where the snow will lie on them. The same plan will answer for mangolds and carrots, but I would cover a little thicker. For potatoes, I would put on two coats of straw and earth alternately, and use bunches of straw for ventilators; also make pits shorter and wider. No farmer need be afraid to grow roots because he has no cellar, for if they are handled as I have suggested they will keep perfectly if put in dry and in good condition. To those who have barn cellars it is a comparatively easy matter to store their roots. I have found a slatted spout, with the slats running across, the best thing to run the turnips into the cellar, and even then a good deal of earth will collect under the windows, and it is very necessary to throw the turnips back and allow the earth to work to the bottom of the cellar, otherwise they are almost sure to spoil. The cellar windows should be left open as long as possible after putting in the roots, to allow the steam to get out.

#### Forest Preservation and Restoration.

BY J. C. CHAFAIN.

In our Dominion of Canada some boldness is necessary to speak of forest preservation and restoration. In vain do we show that countries once covered with forests as luxuriant as ours are now suffering from want of firewood and timber; the settler who has yet his axe in hand to fell the trees growing on the piece of land he intends to sow answers us with a sneer. For him the tree is still an enemy, and you cannot make him believe that a day will come when he will regret having treated it so long as such. On the other hand, the lumber merchant who owns forest limits apparently inexhaustible wants to make a fortune as quickly as he can, and turns a deaf ear to economists who try to make him take forethought for the coming generation.

And yet many districts covered with forest thirty years ago contain now no more firewood nor timber. Very often even agriculture has derived no benefit whatever from a clearing of trees so foolishly made, because it was made on land not fit for cultivation, now that the beneficial influence of the ashes of the wood burnt during the clearing is no more available. I know whole regions which were cleared in that way by settlers who had to desert the land soon after, because it was worth nothing. Such districts would have been as many inexhaustible wood reserves for future generations, who during an almost endless period of time would find on them all the wood they want. To-day these same districts are quite useless in every respect.

As I am invited to set forth before you to-day my ideas on the forestry question, I beg you to allow me to express the opinion that if we wish to be listened to by the farmer, who is always prejudiced against ideas quite new to him, we must at present speak only of what is the least apt to run counter to his prejudices. If this is admitted I think we must specially insist on what follows.

Let us request our Government to give directions to their land surveyors, chosen to fix the boundaries of the new townships opened every year to point out with precision in their reports the regions unfit for agriculture, in order that they never be granted for agricultural purposes.

Let us further urge that the wood reserves thus created, as well as the forest limits rented for the manufacture of timber, be protected against a systematical and complete devastation to which they are subjected by too greedy limit owners, and against fire. Forest can be protected against the aforesaid devastation by enacting regulations to prevent the useless destruction of young trees, and the ill-timed felling of trees not having yet reached their full growth. As to protection against fire the most effectual would be the promulgation of a regulation to careful woodmen to free the land from boughs, chips, shavings, branches, and other wastage, which tend to increase in a very large proportion the number of bush fires. I know that this proposal will be called an impossibility, especially by woodsmen, but what is possible for woodsmen of other countries is possible for ours.

As to the question of replanting in places where the forest has been destroyed blindly, it is still more difficult to interest the farmer about it than it is to speak to him of forest preservation and protection. His forestry education is yet too superficial to make him apt to



understand that there is not only a benefit, but that it is a necessity to replant in denuded regions.

In vain we mention the fact that there are foreign countries where by the complete clearing of mountain slopes fearful periodical floods are caused, which put under the obligations of being banked up the towns situated on the banks of rivers taking their rise on these slopes to prevent them from being overflowed. Such is the case for many towns situated on the river Loire in France. We begin even to see the same occurrence in our own country. The river St. Lawrence is now subject to much more considerable floods than it was formerly, and we have to-day the site of the town of Montreal protected by a dike, the same as the towns of France; yet for us this is only the beginning. But all that is insufficient to convince the farmer that replanting is necessary. Nevertheless replanting is necessary. As I just said, the farmer egotistically says that he won't plant trees, the shade of which he will not enjoy. A good farmer told me once:—"You want me to plant trees; I am not green; I would be dead a long time before the trees that I would plant now would be large enough to shade my grave." Vainly I tried to convince him that he was young enough to enjoy the fruit of his toil; that trees grow quicker than is generally believed. None so deaf as those who will not hear. Happily there is another way of restoring forests besides the mode of replanting which is so repugnant to the farmer. Almost always in the regions deprived of wood it is an easy matter to bring the land to produce by itself a good growth of trees. It is what I would call the natural restoration of forests, and please allow me to quote here a short part of a chapter I wrote on this subject six years ago in my book, "The Canadian Forester's Illustrated Guide":—

"Extensive districts long cleared of their forest growth frequently cover themselves again with wood if care is taken to aid nature in her operations. Generally speaking plains and damp marshes where a few stunted trees show themselves here and there are susceptible of this treatment. Drainage by means of deep ditches of sufficient frequency to admit of the tree growing, if not of perfectly drying the land, is the only thing necessary. The moment that this has been done a multitude of little trees will spring up, which were only waiting for this amelioration to show themselves, and the new growth is usually so prolific and rapid that we would be induced to call it spontaneous, did we not know how long seed will lie dormant in the ground, till all things necessary for their growth were present. The same thing occurs on certain hill sides where protection being afforded against the teeth and hoofs of cattle, their hoary heads soon become crowned into a wreath of luxuriant verdure."

I must state that to-day this natural restoration is well understood by our farmers, and I can prove it by an example. Any tourist who travels by the Intercolonial Railway from Quebec down to Rimouski in the Province of Quebec goes through a region of 180 miles which forty years ago was for the greatest part in forest. This forest has been felled, burnt, and has made place to numerous settlements, but the land forming the slopes of the mountain range, at the bottom of which runs the railway, right through the aforesaid region, having been found unfit for cultivation has been left by itself to make a second growth of wood. The new trees have been thinned, well taken care of, kept uninjured from the teeth and feet of animals, and, now from Quebec to Rimouski, you will see fine maple bushes growing on the land once wrongfully deprived of its trees by the old settlers.

#### Forage Grasses.

**KENTUCKY BLUE GRASS (*Poa pratensis*).**—The second grass, which by reason of its importance stands thus, is that which is known by so many names, according to the locality, but which will perhaps be most generally recognized by that given above.

It must, as our most widely distributed grass, be familiar to everybody, although it might not be connected with any of the numerous names which denominate it. It is a leafy grass which forms long stolons, or underground shoots, from which spring up a number of branches. The leaves springing from the root are very soft and form a considerable tuft, which characteristic lends it much of its value as a lawn grass. The inflorescence is formed on a long erect stem, which supports the flowers, seeds, etc., in form known as a *panicle*, which is the name applied to the arrangement of a flower in a kind of spike, with smaller branches running off from the side. The stem is usually one to two feet high, and the panicle usually has the general outline of a pyramid shape, which pyramid will be seen to be more widely spreading after flowering than before, when it appears comparatively compact. The color is a kind of bluish-green with, even in some cases, a tinge of purple, and on close examination a small web of silky hair will be seen connecting together the different seeds which are on the same *spikelet*. As will be apparent, this web is merely a provision of Nature for the carriage of the seed; for when any animal brushes against the panicle of the grass the seed is rubbed off, and by means of the web attaches itself to the disturber, and is so carried to some more or less distant locality.

Historically we hear of this grass as far back as 1750, or some time near that date, at which time it was said to be cultivated in England and America under the name of "bird grass," but on account of the number of contradictory statements it is hard to arrive at the truth of the matter.

The name of Kentucky Blue Grass has often led into the mistake that it is an American grass, and at first particularly confined to the special district of Kentucky; but, contrary to this, it is the most widely distributed grass in the world. On this continent it is known, among other names, by that of June grass, green-meadow grass, spear grass, meadow grass, smooth-stalked meadow grass; but its general distribution can be noted in Europe, Siberia, North Africa and North America. The most northerly part of Russia fosters it as tenderly as the more tropically-situated Australia.

*Poa pratensis* thrives best upon a loose, warm soil, but almost any moist ground, if not too stiff, will produce it abundantly. Very dry sand or excessively wet ground alike check its growth. Its abundant presence is regarded as a sign of good soil, and the so-called "Blue Grass Farms" generally fetch the highest prices for this very reason. The tract known as the Blue Grass country is in extent about 15,000 square miles on a foundation of limestone; the stalks here grow to a height of two or three feet and give much the appearance of a prairie; and on our own prairies this is sometimes the only grass.

The grass shows great strength in resisting drought and cold, for the roots being widespread and preserved from the action of the sun, are but slightly affected by drought; and again,

certain roots being quite deep are unaffected by the frost.

*Poa* has its chief value as a pasture and lawn grass, the sod being easily obtained and very enduring, it never being known to run out on good land. Much of its virtue is due to the rapidity and earliness with which it springs up after being grazed off, and also to the fact that no amount of pasturing is able to destroy it. On light soils pasturing is apt to pull out the roots, but otherwise the plants continue perennial and produce year after year. By reason of its fine and early foliage it is very suitable for a bottom-grass, and if its aftermath were heavier, it would be the best bottom-grass, but for a hay crop it is not successful, as it is hard to cut and difficult to cure, and the foliage is too short and too light after being dried. As a pasture grass, again, it is considered of very different value under different circumstances, as it seems to require favorable circumstances to bring out its best qualities. Under some circumstances it is best mixed, and so forms a very good constituent of a permanent pasture; but in some parts, as New Zealand, it is considered as great a curse as quack grass with us Canadians, by reason of its tendency to run wild over pastures and cultivated grounds alike. It has great nutritive value, and is eagerly eaten by cattle, which will fatten upon it, provided that it has not been drenched by rain. Much of its usefulness, where other grasses fail, is the fact that in drying by heat, it preserves the greater part of its nutritive qualities. The yield seems best if cut during flowering, that is, late in June and early in July, for after this the stalks become dry and hard, and the leaves, even although they remain green, are tough and leathery; and at this time a yield of about two tons per acre may be expected.

The best time for sowing depends to a considerable extent on the locality and the conditions, for a Kentucky agriculturist says it may be sown any time from August to April, and some prefer to sow it on the snow. Sowing may be completed on a grain field without any preparation, but as a general rule it is best to harrow before sowing and roll afterwards, but the seed should not be covered, as it germinates best in light; a loose or very open surface in dry weather is often fatal to young Blue Grass; it is also best not to allow stock on the grass the first year, for unless the soil be very stiff the plants are easily pulled out.

Seed is raised commercially chiefly in America, but a small quantity also is obtained in Europe from wild plants, as its growth for seed hardly pays. It may be bought in the cleaned state or with the woolly hairs not removed, but the latter, though low-priced is not economical, as this hair and chaff amounts to 20 to 40 per cent. of the whole, and so a large quantity of the purchase is utterly valueless.

Some authors state that *Poa* is unsuitable for clover mixtures, but others assert that mixing with white clover makes the very best ornamental grass; but usually for lawn purposes it may be sown alone. Considering its distribution, Kentucky Blue Grass needs no introduction, but for a bottom-grass and a permanent crop it will prove the best pasturage of any common variety, and is the best fattening grass for cattle we have in Canada. J. McC.

Pasturing wheat is recommended when there are traces of hessian fly, which in early sown fields, in a warm September, with freedom from frost, this scourge is sure to get in its work.



**Influence of Sunlight on Plant Life.**

It is a well-known fact that sunlight is an important factor in plant life, but how its influence is brought to bear is less generally known, as it cannot be ascertained except by careful examination, with the aid of a powerful microscope of the minute tissues of the plant.

The two chief actions in which the effect of sunlight is most clearly seen are assimilation of food and circulation of moisture.

Assimilation in plants corresponds to digestion in animals, and the process is similar. It is done by means of a green liquid called chlorophyll. This is composed of a watery fluid and green bodies, called chlorophyll granules, floating in it. Chlorophyll is found in nearly all parts of the plant, but chiefly in the leaves.

When food is absorbed by the roots it must be assimilated before it can be used. It is carried up to the leaves, where the starch is separated from the other constituents and acted on by the chlorophyll granules. While the liquid of the chlorophyll dissolves the other constituents of the food, the granules act on the starch and separates its two elements, cellulose and granulose. The cellulose is a gummy substance which may be obtained by chewing wheat. It is insoluble and is used for the cell walls. The granulose, a substance resembling flour, is acted on by the chlorophyll granules and turned into starch granules. These are dissolved by the liquid of the chlorophyll. All the dissolved or assimilated food is absorbed by the plant and used for growth.

But chlorophyll cannot eat or exist for any length of time without sunlight. If a plant is kept in a dark cellar the green leaves become white, and the plant soon dies for want of assimilated food. The question will naturally arise, How does a potato grow in a dark cellar? It does not assimilate food, but lives on the assimilated food stored up in the tuber from which it grows. It, therefore, needs no chlorophyll, but when it uses all the assimilated food in the tuber it will die unless placed in the sunlight. The mushroom has no chlorophyll, as it lives on the assimilated food in decaying vegetable matter. Some plants take root in the stems of others and obtain assimilated food from them. These plants are called parasites; they have no chlorophyll. But all other classes of plants have it, although it may not be apparent because of the presence of other coloring matter. But those plants which have no chlorophyll are dependent on the chlorophyll of other plants for assimilated food. Thus all plants are dependent on chlorophyll, and consequently on sunlight, for food.

The sunlight has also a great influence on the circulation of moisture, or sap. This corresponds to the circulation of blood in animals. The sap has the same uses as blood—transportation of the dissolved food to the different parts where it is needed, and carrying away gases which are not needed.

In the leaves of all plants are openings through the epidermal tissue, called stomata, through which water may be absorbed or let out. The heat of the sunlight evaporates the moisture in the leaves through the stomata, and it is replaced by moisture from the root and lower part of the stem. This brings with it to the leaves the food absorbed by the roots. Thus a circulation of moisture goes on throughout the plant.

The reasons for the rapid growth of plants in Manitoba are the length of the summer days and the fertility of the soil. The long time during which the sunlight falls on the plants causes a circulation of moisture which brings to the leaves the food so abundant in the soil. The work of assimilation goes on rapidly, and as the plant is well supplied with assimilated food it grows rapidly. For the same reason the grain and root crop of Manitoba is so great. The plant assimilates food more rapidly than it is needed for growth, and it is stored up in grains of wheat, oats, etc., or in the tubers of potatoes.

**A Wagon Rack.**

The usefulness of implements, and the extent to which they become used, largely depends on the time necessary to operate them and the degree of perfection to which they have been brought. The number of different wagon racks in existence may well be termed legion. It will no doubt be a source of pleasure to farmers to know that at last a most useful combination has been invented, which unites in one, a hay, grain or stock rack, with wagon box for marketing bags, and double box for roots, etc., in such a way as to commend itself at once for lightness, strength and convenience, to the practical observer. At present they are not made in Canada, but the inventor, Mr. R. Caldwell, is anxious to make arrangements for their manufactory here, at the earliest possible date, and until such arrangements are made will be pleased to send direct to Canadian farmers, thus avoiding agent's commission and enabling those requiring them in Canada to get them at about the same price, after paying the duty, as they can be bought for in the states. There is, no doubt, a good opportunity for some of our manufacturers of this class of goods to secure a good, useful article on reasonable terms. Mr. Caldwell's address will be found among our advertisers. Write to him and he will give full information.

**Shiftless Tricks for Farmers.**

- To try to farm without manure.
- To plant more acres than can be taken care of.
- To work with poor tools, and to sow poor seed.
- To buy at public sales what is not needed because it sells cheap.
- It is shiftless to keep a poor stock. A poor cow eats as much as a good one.
- To lounge about stores and groceries when it is possible to be doing something at home.
- To allow the hogs and sheep to wander at their own sweet will over their owner's and neighbor's premises.
- To allow the barn yard to drain into the public road or into a stream. A good many farmers are guilty of this.
- To let the cattle fodder themselves at the haystack. It saves a little labor, but the waste will make the owner poor.
- To have the privy and well near each other. They should never be less than 200 feet apart. The privy should be below, not above the well.
- To leave tools of any kind lying out in the weather; to put them away uncleaned, or to loan them to shiftless and careless neighbors.
- It is shiftless to allow weeds to occupy any portion of the farm, and very shiftless to allow bushes to occupy several rods of ground along the fence rows.
- To plant an orchard and then to allow cattle to browse the trees; to leave vacant places in a young orchard to remain in grass.
- It is short-sighted policy to elect to the township and county offices the men who cannot support themselves in the ordinary pursuits of life. It is also costly.
- It is a shiftless trick to employ the teacher who will work for the least wages. It is as bad to leave a family of boys and girls to grow up without good books and papers.

The farmer who has achieved the reputation for a first-class product can find market easily for more than he can supply. The artisan who has won fame by any work, is certain to obtain orders for more than he can fill. The child who succeeds in getting first rank at school will secure abundant appointments for special work.

**Entomology.**

To the Editor of the FARMER'S ADVOCATE.

SIR,—I send by parcel-post specimens of red clover roots infected by insects, and black knot (taken from cherry trees), with the worms still in them. There are two broods of the clover insect in a season, the first becoming a beetle and leaving the clover roots about the first of July, and the other about the time the red blossoms should develop for the second crop; but, if the insects are numerous, there are no red blossoms, and I think they have been the cause of the almost-total failure of the crop of clover seed in this section for a number of years. As to black knot, I am satisfied that it is caused by insects, and that the fungus exists only in the cranium of those so-called professors who argue otherwise. If they examine the knots the forepart of July they will find from one to ten maggots in each, without any openings for them to get in. There are openings now, as they are about to leave the knots, which dry up and make no further growth, and the insects do no more harm. If the knots are not destroyed before the insect escapes, it is useless to do so after.

S. A. A., Harwich Tp.

ANSWERED BY MR. JAMES FLETCHER, ENTOMOLOGIST AND BOTANIST, CENTRAL EXPERIMENTAL FARM, OTTAWA.

I now send you a short article on the beetle which was destroying Mr. S. A. Arnold's clover. Mr. Arnold's opinion concerning the nature and origin of black knot of the plum and cherry is entirely wrong. The nature and mode of growth of this parasitic fungus is now just as well known as that of the plum tree upon which it grows, and has been ably treated in your pages by Prof. Panton. It is a rather new kind of argument that because an insect is found inside an object that, therefore, it made it. In the same line would be trying to prove that because maggots are found inside the ordinary mushroom that, therefore, they made the mushroom. There are no holes showing on the outside, because when the insects hatched from the eggs laid by the mother insect, they were so very small that the hole necessary to allow them to enter the substance of the fungus could hardly be seen, and also because its increase in growth would soon obliterate the holes.



VARIOUS STAGES OF CLOVER-ROOT BORER.

The Clover-root Borer (*Hylesinus trifolii*).—The clover roots sent by Mr. Arnold were found to be badly infested by the clover root borer, which was present in the grub, chrysalis and perfect states. The perfect insect is a very small dark brown beetle, only  $\frac{1}{2}$  of an inch in length.



It belongs to the family known as Bark-borers, or *Scolytidae*, all of which are rather slow-moving and small insects. Most of the species in this family live in and beneath the bark of trees, where they do much damage. The insect under consideration is a new pest in Canada, having been imported from Europe; it has only been complained of in North America since 1878, when specimens were sent to the United States Entomologist, Prof. Riley, from the state of New York. It has, however, already spread over a considerable area, and is now a formidable enemy of the clover grower. In order that the insect may be recognized by farmers, I give here with an illustration of the insect in all its stages, which has been drawn with great care by Prof. Riley. All the figures of the insect are much enlarged, the actual size being only about that of the letter *a* by the side of the stem. The life-history is as follows: Early in the spring the mature beetles emerge from the ground, where they have passed the winter in the roots of the clover plants, which they had destroyed the previous season. After pairing, the female bores a cavity in the crown of the root, and deposits there about half-a-dozen small white eggs. These hatch in about a week, and eat their way down into the root, hollowing it out, as shown in the figure. The burrows are filled up with the excrement of the small, white grubs (Fig. B), which, when full grown, are only about  $\frac{1}{8}$  inch in length. These change to chrysalids, and in September the perfect beetles may be found in the roots. In the specimen sent by Mr. Arnold I found full grown grubs, chrysalids and the perfect beetles. These would all have attained the perfect form before winter, and remained in the root until spring, feeding upon its substance. Although the perfect beetle feeds on the roots, it is in the grub state that the chief part of the injury is done. When the larger roots are particularly attacked, Prof. Riley found that in many cases the plants were entirely cut off at the surface of the ground, and the flower stalks were also in many cases eaten into.

**Remedy.**—No better remedy has been suggested than the ploughing under of clover when it is found to be infested. As a rule this is not detected until the second crop is found to fail. In infested districts the fields should be examined frequently, and if indications of the pest are found the clover should be ploughed under as soon after the first cutting as there is a pretty good growth on the ground. The value of the clover plant as a fertilizer is well known, so that the loss to the farmer is materially reduced on that account, when this treatment is found necessary. When gas-lime can be had cheaply and conveniently it will render the treatment much more thorough if a heavy application of from two to four tons to the acre be made previous to the ploughing.

#### Potatoes.

To estimate roughly the number of bushels of potatoes in a bin, measure the bin and multiply the dimensions so as to ascertain the number of cubic feet; two-thirds of this cubic contents will be roughly the number of bushels.

One reason why potatoes stored in a pit come out in better order than from the average cellar is because the pit is absolutely dark; another reason is that there is no circulation of air to dry the tubers and wilt them as sometimes happens in cellars. Make your cellar perfectly dark, as cool as may be without freezing and as close as possible, and you will keep your potatoes or other roots almost as well as in a pit with the advantage of being able to get at them for use or market with less trouble than when in a pit. A very little light and air are injurious, the cellar windows should be curtained inside where roots are stored.—[Massachusetts Plowman.]

One point gained on the road of progress, and the next is gained easier, for when we make an advance step we derive a certain stimulus from it that urges us on with fresh vigor.

## Stock.

### Stock-breeders Meet.

ONTARIO'S EXHIBIT OF LIVE STOCK AT THE WORLD'S FAIR DISCUSSED—THE ONTARIO AND DOMINION GOVERNMENTS TO BE ASKED TO HELP—IMPORTANT RESOLUTIONS PASSED.

A joint meeting of the Agricultural and Arts Association of Ontario and Stock Breeders' Association was held the 17th, of September, at the offices of the Agricultural and Arts Association, Toronto. Those present were: N. Awrey, M.P.P.; H. Wade, secretary Agricultural and Arts Association; J. C. Snell, Edmonton, Ont.; John Weld, of the Farmers' Advocate, London, Ont.; F. W. Hodson, Hog Breeders' Association; R. Gibson, Delaware, and J. Russell, Shorthorn Breeders' Association; Ira Morgan, J. McGillivray, Q.C., J. Jackson, Dominion Sheep Breeders' Association.

Mr. Awrey was appointed chairman, and stated the object of the meeting, which was to discuss what action should be taken by stock breeders towards securing a first-class exhibit of live stock at the World's Fair in Chicago in 1893. The chairman said a deputation had waited on Hon. Mr. Carling, and had been assured by him that the Dominion Government would deal with the stock breeders in a liberal manner.

It was stated that the period devoted to the exhibition of animals for awards in the following divisions will be as follows:—Cattle, September 11 to September 27; horses, jacks, and jennets, August 24 to September 27; sheep and swine, October 2 to October 14; kennel show or dogs, June 12 to June 17; poultry, pigeons, pet stock, etc., October 18 to October 30.

Mr. Gibson thought that all the live stock would be on the grounds for six weeks.

The Chairman said he would like to have the opinion of the stock breeders present as to sending a deputation, composed of representatives of all the Stock Breeders' Associations, to interview the Dominion and Ontario Governments regarding the selection of the stock to be exhibited, and other details. To make their exhibit a success the Governments ought to relieve the exhibitors of all expense, such as maintenance, transportation, etc., and thus encourage the stock breeders.

Mr. Hodson said that this was

A GREAT INTERNATIONAL FAIR,

and it would be a great means of advertising the country, and the Governments should bear all the expense,

Mr. Awrey said that if the Dominion Government would bear the expense of maintenance and transportation of the stock and exhibitors the Ontario Government should pay the expenses of the selection of Ontario exhibit.

Mr. Gibson thought the Ontario Government should duplicate the prizes. The National Committee had awarded \$150,000 in money prizes for the live stock, to be competed for by all exhibitors, but several States had supplemented this by giving large grants for prizes of exhibits in those States only. Now that the Ontario Government had practically done away with the Provincial Fair, he thought they should also contribute money prizes for competition among Ontario exhibitors at the World's Fair.

Mr. Jackson said that the stock breeders

should be made sure of something, and the Government should grant some money for this purpose. Money prizes were wanted, not medals.

The meeting thought that the Agricultural and Arts Association should make the selection of the Ontario stock and give the prizes, and not a committee composed of representatives of the various stock breeders' associations. It was also suggested that representatives of all the stock breeders' associations should wait on the Hon. Mr. Dryden, and find out what the Ontario Government would do.

MR. AWREY WARNED THE STOCK-BREEDERS

that the people in the United States, especially those from the State of Illinois, which is the greatest rival of the Province of Ontario for stock-breeding, would be purchasing choice cattle for the purpose of exhibiting them at the World's Fair. He advised them not to sell their best stock and then exhibit inferior cattle against them. If Canadians kept their best stock they would be successful in competition against all other exhibitors, and the breeders in the States would recognize Ontario as the best stock-raising part of the continent and come here to purchase. If, however, Illinois stock-breeders succeeded now in buying the best stock in Ontario, the other States would look upon Illinois as the place where the best cattle can be purchased, and this would be a great loss to the province. Breeders here must be convinced that sufficient inducements will be given them by the Dominion and Ontario Governments to keep their best stock to exhibit at Chicago.

It was resolved upon motion of John McGillivray, Q. C., seconded by J. C. Snell, that in order that the Dominion of Canada and this, the premier province of the Dominion, should be properly represented at the approaching World's Fair to be held in Chicago in 1893, in the matter of all its industries, the Federal Government be urged to make an appropriation for defraying the expenses of transportation of all exhibits, the cost of keeping the live stock, and the necessary personal expenses of exhibitors and those in charge of the exhibits while upon exhibition, and while going to and returning therefrom; and further, that the Government of our own province be asked to make a sufficient appropriation for the purpose of bearing the expenses of selecting the stock and other products to be exhibited, and for prizes to be awarded to Ontario exhibitors thereat.

It was also resolved that a committee be appointed to work out the necessary details as to the line of action to be adopted, the selection of stock, and management of exhibits and the cost thereof, and submit their report at as early a date as possible to the Departments of Agriculture of both the Ontario and Dominion Governments for their approval or rejection, the said committee to be composed of Messrs. Awrey, Gibson, McGillivray, Snell, Jackson, Morgan, Hodson, and Wade. The secretary was requested to secure all information that will enable the committee to arrive at a proper decision.

Mr. Awrey was appointed chairman and Mr. Wade secretary of the committee, after which the meeting adjourned.

To succeed one must venture and risk much. A while ago a German steamship went to pieces, and the captain of the *De Ruyter* was sent home disgraced because he had lost his vessel, but had he succeeded, when he made his choice of the two courses open to him for selection, he would have made the fastest trip on record and been received with highest honors, upon his return home. The peril remained the same, but a successful result would have been praised while the failure is censured bitterly.



### Sheep and Swine at Toronto and London.

On account of publishing the prize lists of the Toronto and London exhibitions in this issue, we are compelled, for want of space, to withhold the report on the sheep and swine at the former, and that of the whole stock department at the latter show. These will be published in the November issue.

### Studs, Flocks and Herds.

#### ELGIN STOCK FARM

is one of the oldest breeding establishments in the province of Quebec, the stud there having been founded thirty years since. Messrs. A. & J. Bell, Athelstan, P. Q., the proprietors, are conveniently situated for railway privileges, the Huntingdon station, fifty miles south of Montreal on the G. T. R., being some four miles from the farm, while the new Adirondack line is building a station adjoining the farm, which line runs from Montreal to the city of New York. The stud of Clydesdales here is the largest in point of numbers with which we are acquainted, and is alike noted for the excellence of the mares and stallions of which it is composed. Some sixty head of registered horses, colts, mares and fillies are to be seen here, and in the different ages there are a number of particularly good specimens. It has evidently been the aim of the Messrs. Bell to import horses of great utility; they have generally selected those of low-set, blocky type, combined with heavy bone and abundance of feather. Messrs. Bell claim that this sort impress the draught type more fully upon the progeny when coupled with the lighter-boned mares of their part of the country.

The soil of this farm is very similar to all this part of the province, being rather flat, but wonderfully strong and producing very large crops of grain, and a field of corn adjoining the barns was far advanced in maturity with a great wealth of stalk, and promises a good yield of ears also.

Messrs. Bell stated that they also grow large crops of hay, which is readily believed by the appearance of the soil.

Pure-bred stock of all kinds are kept, Ayrshires being the kind of horned cattle they breed. A particularly handsome yearling bull named Duke of Beauharnois, is at the head of an excellent herd of these choice dairy cattle.

In the stud of horses we were most favorably impressed with the excellent lot of brood mares, which along with promising foals at foot formed a sight long to be remembered. Some ten foals with their dams were together in one lot, while a youngster two days old beside his twenty-five-year-old dam is a living proof that Clydesdales are not short-lived horses, the mare in this case having been a very successful show beast in her time, and still retains wonderful form and freedom from unsoundness. Among this vast concourse we shall only have space to mention a few noticed by us, such as Bessie Bell, a very handsome, low-set bay mare, sired by Prince Royal, a stallion bred by Mr. Davidson, M. P. for south Ontario; this stallion was a son of Mr. Davidson's mare Darling, which was undoubtedly one of the best and most successful brood mares ever imported. To the above named stallion Messrs. Bell ascribe a large portion of their success. Brown Jess, another very fine mare, belongs to the same excellent family, the lot forming a stud which it would be

exceedingly difficult to duplicate on any breeding farm with which we are acquainted. As this strain has been in the stud since they first began breeding and importing, it is not surprising that the individuals of this family should be especial favorites with their owners, the proprietors claiming that among the numerous importations of brood mares made by them they have not been able to secure any that they could rely upon as certain to produce the same amount of quality and size.

The first of the imported stallions led out for our inspection was Locherby Lick, a bay, six years old, sired by the Highland Society prize horse Mansfield. This is a flashy horse of very attractive form, he has legs of capital wearing type, is a neat, clever mover, perhaps a bit upstanding, but his whole appearance denotes wear.

Endymion, by Old Lord Lyon, is altogether of a different type; he is much nearer the ground, heavier in the bone, with more feather. He has large, well-shaped quarters, and is nicely turned—has proved very successful in the stud.

General Mite, by the Darnley horse Sir Michael, dam by the Prince of Wales, is not only of choice breeding, but is a horse of exceedingly good points. He has a very strongly knit frame, good, heavy, clean bone, and is altogether a horse that stands the closest inspection.

Farmer is a three-year-old colt of their own breeding, and is built after a good pattern for use; is a good mover and handsome color. Scottish Banker, a good, tight built horse, is sired by Endymion, his dam being the mare that has never been beaten in the show ring. In their choice of sires the Messrs. Bell have been particular in selecting the best colors, along with the other necessary qualities, and their whole stock shows to great advantage in this as well as other particulars. The mares are also particularly good, many of them having been imported.

#### MESSRS. DAWES & CO.

The stock farm of which the above gentlemen are proprietors consists of The Willows and Maplewood, and comprises something over five hundred acres of land that is very well adapted for breeding fine stock. The soil on these farms rests on a limestone foundation, which is always esteemed where a high point of excellence is the aim. The pasture grasses grow in perfection here, and notwithstanding the dry summer experienced in this locality abundance of grass is to be found in the pastures. This establishment is among the largest in extent, and most varied in the number of breeds of cattle kept, as Herefords, Polled-Angus and Jerseys are all represented by large herds of each variety. Formerly the farm was the centre of a large herd of Ayrshires, the milk of which was sent daily to Montreal. However, these were disposed of, and the present breeding establishment formed by direct importations from England, Scotland and the Isle of Jersey, the home of each of the breeds selected, to form the basis of the present extensive establishment. The first importation dates back ten years, and consists of the following breeds, viz.: Herefords, Polled Angus and Jerseys. Of these the Herefords are in the largest numbers, some sixty of which are at present on hand. The bull at the head of this department is Otto Wilton, a bull that is not only an exceedingly choice individual, but is also particularly well bred. He is from the herd

of Hon. H. M. Cochrane, is sired by Ottoman, dam by the well-known show bull Cassio, and his blood lines are full of the breeding of Lord Wilton and The Grove 3rd. Among the female portion of the Hereford herd are a number of extra good imported cows, of which we counted some sixteen or eighteen beside a large number bred on the farm, and for which we only have space to mention a few, viz.: Cherry Bark (23634) was bred by Major Clonmell, Ireland, and is a favorite with Mr. Dawes. She is a large, heavily-fleshed cow, of good form. Corette (36070) is a smooth and handsome two year-old heifer, by Monarch, her dam being an imported cow. Corine is another heifer by Monarch, and is also from an imported cow. These heifers are of large size and are nicely finished. Clarissa is a good yearling heifer, and is also sired by imported Monarch, her dam, Winnifred, was bred in Ireland. Rosebud, a three-year-old, is a thick, wide heifer that should make a good breeder. All the above are included in the herd shown at the principal shows of the province this season. The Polled-Angus herd has hardly as many representatives as the foregoing, but we had the pleasure of inspecting a number of specimens of very superior merit, especially among the older cows, which, like the Herefords, are mostly imported, and are from the choicest herds in Scotland. Baron Hillhurst Second, of Hon. H. M. Cochrane's breeding, is at present in use on the Doddie herd. He was sired by Lord Hillhurst, his dam being Blackbird of Hillhurst, and, therefore, belongs to that much-prized family. We noticed two cows which were intended to be shown, of which Magpie of Kirkton, by Baron of Strathavon (4261), is a cow of good substance, with capital hindquarters. She is from one of the best herds in Scotland. Maggie of Kinocry is also imported. She was bred by Mr. Thomas Ferguson, sired by Prince of the Realm. This is a very straight, handsome cow, and looks well. She has a calf at foot which is also very promising. Teresa Lass is a yearling, imported in dam. She is a neat and good heifer, as also is the heifer calf Regina of Lachine, though hardly in as good show condition. The Jersey herd is large in numbers, and the individuals comprising it are of beautiful form and quality. There are fifteen imported cows besides their descendants, the whole forming a particularly choice lot. A number of the Jerseys were imported six years ago, and were selected by that capital judge Capt. Le Broque, of St. Maries, and it is, therefore, not surprising that such an excellent selection is to be found in this herd. Outside those intended for show we counted eight beautiful cows, all imported from the Island. These were just being fastened in their stalls preparatory to milking, their product being sent to supply the guests at the Windsor Hotel, Montreal, with cream. The bull in use is Nero, which was imported with his dam Badier Bess, which is a cow that is a capital butter performer. Nero was sired by Nero Du Quin that was sold on the Island for £100 sterling. Apart from his good breeding, Nero is a bull of exceedingly good merit. He is very large and deep in the rib, of a smooth finish and full of character. Several cows not mentioned above we admired very much, among which we noticed an imported cow named Opakella, which has a wonderful udder. She is very handsome and with fine quality. Pride of the Wiltons has also great



performing promise. She and the last named are but examples of large numbers in this good herd. Some very neat heifers are here, all of which denote the best possible breeding. The immense benefit that should be attained by the bringing in of such a number of good ones can scarcely be estimated throughout the Dominion. Too many of our breeders have concentrated the breeding of a few special strains without any out cross, which can have but one end if continued, and those on the outlook for fresh blood to infuse into their Jersey herds have an opportunity for any amount of choice. In all there are one hundred and forty head included in the three breeds mentioned, so that intending purchasers or visitors may make selections to please themselves. The Willows Stock Farm is conveniently situated near Montreal, and can be reached almost any hour in the day by the suburban trains.

## WOODSIDE CLYDESDALES.

Mr. Robert Ness, of Howick, P. Q., whose farm is convenient to both the G. T. R. and C. A. R. station, is situated about forty miles southwest of Montreal on the former, and one hundred miles southeast of Ottawa on the latter railway. Mr. Ness has for a number of years been noted for the excellent class of horses that he imports. Residing in a fertile and well farmed country, with more of the old country usages than we see even in many parts of Ontario, high class farm and draft horses are being thoroughly appreciated. The stallions imported by him have been the means of adding much to the improvement of this class of farm horse throughout this district. Mr. Ness has always selected his horses in person, and having been well versed in the requirements of his locality, as well as having a knowledge of the best breeding grounds of Scotland, his patrons now place strong reliance on his judgment, which is shown by the well established trade that he has acquired.

At the time of our visit we found eleven choice stallions of saleable age in this stud, embracing three breeds, of which the Clydesdale is the chief, although we also found a beautiful specimen each of the Yorkshire Coach horse and his closely allied cousin the French Coacher. A selection is thus offered that should suffice all comers. Among the stallions of excellent breeding that were imported previous to the present season, is James Arthur, sired by the noted Macgregor, his dam being by Prince of Wales, and his grandam by Lord Lyon, a combination of good blood that cannot be excelled. James Arthur is a large horse whose strongly-knit frame is in keeping with the foregoing excellent breeding. Machemie is also sired by Macgregor; he can also boast of exceptionally good breeding, his dam having been a wonderfully successful breeder, having produced three other celebrated stallions by the same sire, viz., Macpherson, Macallum and Energy, the two first having made their mark both in the show ring and in the breeding stud, while his younger brother Energy is better known to most of our readers as one of the best sons of Macgregor yet brought to this country. Machemie himself is a handsome horse. He has free action, moving with great style, which is combined with the best of Clydesdale character. Gallant Model is a three-year-old by Top Gallant, and belongs to the stamp that is now being sought after. He is of

handsome conformation, with feet and legs of the right material for endurance. Pure Clink is a horse of very neat make up. He is very well turned above, making good use of a good set of legs and feet. Barlocco, by the Macgregor horse Macpherson, is an exceedingly wide, thick three-year-old. He has wonderfully strong quarters, with flinty bone, good feet and all-round quality that will make him a most popular horse, where a low-set type of his breed is required. Golden Stamp, a four-year-old horse by Golden Guinea, a dark bay with white ankles. He is a useful young horse of attractive form that should not long be wanting a purchaser. Life Guard, among those recently landed, is of good form. He has a neatly turned top piece, and is nicely balanced throughout, with quality that should satisfy the most fastidious judge. Along with his individual merit, he combines the best of breeding. He was sired by Young Duke of Hamilton, the Glasgow premium horse of 1883, which was sired by the noted Prince of Wales horse Duke of Hamilton, while Life Guard's dam is of similar breeding as the dam of the noted Macgregor. The last brought out among the Clydesdales was the newly arrived Prince of Eastfield, held in reserve to give a finishing touch to a most superior collection. This horse is sired by the Prince of Wales, and adds another to the grand list of stallions got by this horse. Prince of Eastfield is a well-colored bay, with abundance of bone of superior texture. His pasterns, both in front and behind, are at the proper angle. He has the best of feet, is strongly muscled, and when we add a handsome top piece and most attractive action there is little left to be desired. Mr. Ness is working his land with a most useful lot of imported mares, which are also kept for breeding. The very large mare Nettie, by the noted horse Druid, dam by Darnley, is now due to foal.

Last year Mr. Ness brought out a very handsome specimen of the Yorkshire Coach horse. This stallion was bred by Mr. John Lett, of Rillington, Yorkshire. He has the best of legs and feet, for which this sort are famous.

Included in this year's importations is the French Coacher Maltot. He is a government approved, and has a registered certificate from the National Haras, of St. Lo, France. This horse is one of the most handsome specimens of the breed we have ever seen in Canada. He is a model of beauty, and has the most attractive action. Along with him came a pair of beautiful mares of this breeding, that are now used to draw the carriage of Count Mercier, the Premier of the province of Quebec.

While Mr. Ness was over in Europe, his sons were busily engaged in building a large and commodious barn for their horses, which goes to show that they intend to stay by their successfully established business.

## DR. CRAIK'S POLLED ANGUS HERD.

In addition to his practice, as well as being Dean of the Medical Faculty at McGill University, Dr. Craik has found time to farm quite extensively within a short distance of Montreal, his fondness for stock, doubtless, leading him on until he now has a very choice selection of Aberdeen-Angus cattle. This herd was started six years ago by purchasing from Mr. J. C. Alloway, a former occupant of the farm, the imported cows, Nannette the Fourth, Princess Victoria, and also the heifers, Fanny of Ard-

gowan and Jessie of Ardgowan. The only one of these retained in the herd is Fanny of Ardgowan, which has proved a most satisfactory breeder. At the head of the herd is Evelyn (6005), a four-year old bull of Sir George Macpherson Grant's breeding, and belonging to the Enchantress branch of his far-famed Erica tribe. Dr. Craik purchased and imported him in 1890, before which he was in use in the herd of Major Duff De Muir. Evelyn is sired by the Ruth bull Royal George, and is, doubtless, one of the best bulls of the breed in any herd in Canada. He is remarkably smooth, with good, thick, meaty top, good depth of rib, standing on very short legs. In this herd the cow deserving premier position is Emmetine (13646). She is a three-year-old, sired by Merriman, his dam being Eligy, both being of the Enchantress branch of the Erica tribe. She has a beautiful eight months heifer at her foot, by the grandly bred Pride bull Knight of the Prides. This calf is very promising indeed, and at present is quite equal to her dam in quality. Black Jude is a two-year-old heifer of Sir G. M. Grant's breeding. She belongs to the Blackbird tribe, and was sired by the Ruth Bull Royal George. She is now carrying a calf by Emperor, a Pride bull which was first this year at the Royal Northern at Aberdeen. This heifer is one of the best females in the herd. She is very thick and shapely, with splendidly sprung rib, combined with the best doddy character. Pride of Findhorn 3rd, a pure Pride, was bred by Sir William Gordon Cummin, and imported by Mossom Boyd, Esq., Bobcaygeon. This cow has been a famous breeder. She produced two heifers for Mr. Boyd, which sold at his sale in June, 1888, at \$700 and \$640 respectively. Her calf at foot, named Pride of the Ermine, is sired by the well-known Erica bull Ermine Bearer, imported by Mr. Boyd, and bred by Sir G. M. Grant. This calf is a grand specimen of the tribe, and along with her royal breeding bids fair to help on the reputation of the herd. She has capital character, with both top and under lines that cannot be improved upon. Her crops are well filled, her rib nicely sprung. She is very thick and handsome. The Kinochtry Favorites are represented by Fanny of Ardgowan, bred by Mr. Alloway. She is sired by the imported Favorite bull Prince Leopold of Kinochtry 11th. This cow has a smooth, well-covered top, well-sprung rib, and is thick and useful. Her four-year-old daughter Ardgowan Favorite, bred on the farm, is sired by Lord Napier of Ardgowan. Another daughter of Fanny of Ardgowan is the heifer calf Ermine Favorite, another of the get of Ermine Bearer. This is a beautiful calf. She has great length, top and bottom line straight, very smoothly finished quarters, and certainly a model of the breed. The Lady Fanny tribe has a choice representative in Fay A. of Eastview, bred by Mr. R. H. Pope. She is sired by the Erica Lady Craig bull Piper of Eastview. This is one of the best matrons in the herd. She has at present a bull calf at foot, sired by the Favorite bull Favour. Fay is a yearling daughter of the above, sired by the Charmer bull Charmer of Eastview, bred by Mr. R. H. Pope. She is very like her dam—has a good meaty top with extra good quality. Countess Delta, a four-year-old, is of the Rothe-may of the Miss Morrison tribe, and bred by Mr. Boyd. She is sired by the highly bred Pride bull King of Trumps, which was a son of the



noted Koinoor. She is one of the low-down, thick set sort, and is very smoothly finished. Ermine's Nannette belongs to the Nannies of Wester Fowlis, and is another of the get of Ermine Bearer, this bull having got three calves, all heifers, during his stay in the herd, all of which are exactly the same type, as alike as peas. They are beautifully finished, and bid fair to be heard from in later years. The yearling bull Favorite, is a son of Fanny of Ardgowan, and is sired by Charmer of Eastview. This is a bull of good length, with a smooth top, quarters well filled. He has good length of rib, and enough all-round quality to entitle him to a place at the head of a herd. During a visit to Scotland this season, Dr. Craik purchased the yearling Pride heifer Pride of Guichan 34th, which was first in her class at the Highland Society's Show at Stirling this season, and turned out a noted prize-taker, later on, winning Lochiel's cup valued at £50, offered for the best pure-bred animal in the cattle classes. She also led in the group of four that took the gold medal offered to all comers. Her dam is by the prize-taker Cash, never beaten in the show ring, also a celebrated bull getter.

## MR. ROBERTSON'S AYRSHIRES.

The province of Quebec has long been noted for choice herds of dairy cattle, to the Ayrshire may be ascribed much of the good milking stock which is to be seen, as most of the cattle are of this type. Mr. Robertson, whose farm adjoins that of his uncle Mr. Robert Ness, has for years been building up an exceedingly choice herd of Ayrshires, the excellence of which is demonstrated by the numbers of trophies hung about the rooms in his residence. At the time of our visit Mr. Robertson's cows were being got into condition for a milk test to be held at the show at Sherbrooke, and a number of very superior individuals were also intended to fight their way to the front for the prizes offered for this breed of cattle. The bull at the head of the herd is Golden Guinea, got by Guinea King. According to Mr. Robertson's statement he has won more prizes than any bull of the breed in the province. He is of very smooth and handsome build and nice quality, and has proved of great value in the herd as a sire. Mr. Robertson is in a good position to purchase cows of the best performing type, as he buys a good many for the milkmen of Montreal. He also ships his milk to that city. He last year took the medal for best managed farm in the country, and this year he entered his farm for competition in the divisions that include a number of the best farmed counties in the province.

## SPRINGFIELD FARM.

A few miles out of Paris, and beautifully situated on the bank of the Grand River, is the farm of Messrs. A. Telfer & Son, whose specialty for many years has been sheep-breeding, their fancy being for Southdowns; and that they have made an unqualified success of their business is fully proved by their successes in the past few years in the show yard.

At the time of our visit the flock had been considerably reduced by some heavy drafts on it by American buyers, yet we were able to spend a couple of hours very pleasantly in looking over the sheep that are this year to do battle in the show yard.

Among them was the last importation, which

consisted of a shearing ram, a fine, strong, even sheep; and a pair of very neat ewe lambs, all from the flock of Edwin Elis, Esq., Summersbury Hall, Surrey, England, while among the other imported ewes were a pair purchased last year from Mr. John Jackson, who imported them from the Jonas flocks; these ewes last year won 1st in Toronto and 1st in Detroit in the classes for ewe lambs, and if we are not mistaken will this year take a lot of beating as shearlings.

But while Messrs. Telfer have shown themselves willing to go down in their pockets to buy good sheep, they have also proved their ability to breed good sheep, for in an adjoining shed to the imported ewes, we found a three-shear ram and a pair of ewes, all home-bred, and a beautiful trio they were, all three sired by a son of the famous Beau Brummel, the ram being out of Telfer's No 1, also by Beau Brummel, and we were told the most profitable ewe on the farm, having produced thirteen lambs in five years, this ram being one of triplets, while the dam of the two ewes was bred by the veteran Southdown breeder, the late Mr. D. Perley, of Paris. These ewes last year won a number of prizes, including 1st at London, the ram having also won 1st at the same show, and 2nd at Toronto in competition with imported rams. Messrs. Telfer have been breeding Southdowns now for over thirty years, and we would advise intending purchasers to read their card in our columns and pay them a visit.

## WOODBINE FARM,

the property of Mr. Alex. Kennedy, is situated about four miles from Ayr and eight from Paris. Here Mr. Kennedy has been breeding Holstein cattle for some years, having made his first selections from the herd of A. C. Hallman & Co.; his present stock bull, Woodbine Prince (6712), winner of first prize in Toronto last year, being from the Springbrook Herd. Woodbine Prince is a very large bull, combining with his size a smoothness and evenness such as one does not often see in so massive a bull; his hile is beautifully mellow, and he shows the milk points of his family very strongly developed. His mother, Flora Jane (10447), imported by Geo. Brown, Aurora, Ill., won 1st at the Central Fair, Hamilton, last year. She has tested 4,266 lbs. of milk in sixty days since coming into Mr. Kennedy's hands. Her bull calf, dropped last fall to Woodbine Prince, is very promising, and should prove a great milk and butter bull. A grand cow, perhaps one of the best Holsteins we have seen in Canada, is Mavourney (9200), purchased at a very long figure from Mr. John Pringle, of Ayr, who purchased her in his turn in York State, where she was imported by Holman & Collamer, of North Parma, N. Y. She has tested 95 lbs. of milk in a day, and last year she won second at Toronto in a class of nineteen. Her yearling bull, sired by Ira's King (61), won third last year in Toronto. He promises to make a very useful bull, and is worth being looked up by intending purchasers. Mr. Kennedy gave very strong testimony to the value of Holsteins as dairy cattle, and as he is a thoroughly practical man, who works his farm for profit, not amusement, his opinion is worth quoting. Besides his Holsteins, Mr. Kennedy showed us a pair of pedigreed Improved Large Yorkshire sows, bred from stock imported from F. Walker-Jones, and in a paddock near the house were running a bunch of trotting-bred colts, among them a likely-looking pair of Little Billy's, both out of a Morgan mare, and also a very promising yearling, by Norval, a grandson of Belmont, and out of a Clear Grit mare. Although a comparatively new man in the business, Mr. Kennedy proved himself last year entitled to a front place in Holstein ranks, and we would recommend our readers to look up his advertisement when needing stock.

## MAPLE LAWN FARM.

Leaving Mr. Kennedy's, a drive of about four miles took us to the home of another admirer of the black and whites. Mr. John Pringle,

although one of Auld Scotia's sons, has so far forgotten the traditions and principles of his native land, as to become a warm champion of Percheron horses and Holstein cattle, and having so far forgotten himself, he has, like most Scotchmen, put his money into good specimens of his favorite breeds and then taken good care of them. At the time of our visit Mr. Pringle was sold out of Percherons, all but a young, high grade stallion, but his Holsteins numbered some fifteen head of cows, heifers and young stock, the bull last used being Ira's King (12029), bred by Dudley Miller, Oswego, N. Y. As Mr. Pringle had just parted with Ira's King, we had not an opportunity of seeing him, but a glance at his pedigree showed him to be rich in the best strains of blood, his granddam, Meadow Queen, having a record of 93 lbs. in one day. Among the females we quickly picked out three heifers, Patti Trifle (15706), Roozie's Pet (18864) and Maid O'Parma (15810). Of these the first is a daughter of Mr. Kennedy's grand cow Mavourney, and in our opinion she bids fair to rival her mother in a couple more years, while Roozie's Pet, her half-sister, is a magnificent two-year-old, showing a wonderfully developed udder and immense milk veins. The last, maid of Parma, is a good deal smaller than the other two, but she shows milk points very strongly developed, and we were not surprised to hear Mr. Pringle say that she had given 47 lbs. of milk in a day as a 3 year-old on grass alone. Another extra choice heifer is the yearling Maid of Maple Lawn (22404), a daughter of Patti Trifle, and sired by Ira's King, while the yearling bull Ira's King 2nd, out of the imported cow Annie (9197), is a big, smooth, growthy youngster, with a nice hide and well marked. Altogether, Mr. Pringle's herd is worthy of inspection, and we can guarantee visitors a hearty welcome, and a sight of some good cattle kept in natural condition.

## ELM PARK FARM.

Four miles north-east from the Markham Station, on the Midland branch of the G. T. R., and a like distance from Locust Hill Station on the C. P. R., is situated the stock farm of Mr. W. D. Reesor, who has for a number of years been engaged in breeding Jersey cattle, the herd of which consists of twenty cows and heifers, most of which are Cattle Club animals. Mr. Reesor has been a number of years shipping the product of the herd to Toronto in the shape of cream, which is not only exceedingly profitable when Jerseys are the sort kept, but also has the advantage in leaving the skim-milk on the farm to bring up the calves, or feed in any way that may prove to the best advantage. Mr. Reesor is a staunch believer in St. Lambert blood, and bulls of this breeding have always been in use in the herd, such as Brier Pogis, son of Sweet Brier of St. Lambert, 22 lbs. in seven days, Comely's Stoke Pogis, son of Comely of St. Lambert, a daughter of Stoke Pogis 3rd, and sister to the famed Mary Ann of St. Lambert's. Last season, One Hundred Per Cent., the only full brother in blood to Stoke Pogis 3rd living, was used. Among the cows that have found a place in this breed are Brier, record 22 lbs. of butter in seven days; Diana of St. Lambert's 80, of Canada's John Bull, 16 lbs. in seven days, and this at eight months after calving; Cognition of Glen Rouge, 16 lbs.; Minnette of St. Lambert's, 18 lbs. These were all officially tested cows, and shows the highest breeding and best performers have been the aim of the proprietor. Nine beautiful heifers, which are at present for sale, are an exceedingly promising lot.

Clydes have been included in the breeding operations—the imported mare Scotland's Queen and her yearling filly, the former of which is both a useful mare and regular breeder.

The present flock of sheep are Shropshires, and consists of 70, of which 25 are imported ewes selected from three different importations; there are also 10 shearing ewes and 30 lambs which are of good size and quality. A splendid imported ram has lately been purchased by Hon. John Dryden to mate with the above.

Mr. Reesor is now stocked beyond the capacity of his farm and, therefore, is desirous of selling a number of both his cattle and sheep, which are worthy of the attention of those on the lookout for anything in these lines.



**Auction Sales.**

As will be seen by consulting our advertising columns Mr. F. W. Stone, Guelph, has fixed the 22nd Oct. 1891, as the date at which he will sell 60 pure-bred Shorthorn and Hereford cattle, 100 Cotswold and Southdown sheep, and a number of Berkshire pigs and agricultural horses. The sale will take place on the Patterson farm, lots 6 and 7, con. 7 Puslinch, about four miles south of Guelph, and is without reserve the farm having been sold. By writing Mr. Stone catalogues will be sent to those applying for them.

Mr. Joseph Ward has for many years been before the public as an extensive breeder of Cotswold sheep. The importation made by him this season comprises a particularly good lot of show rams and ewes, the stock ewes of which he also brought over quite a number, are among the best that we have seen for many years. In another column he is out with an announcement of a public sale to be held on his farm, on the 14th of this month.

We have much pleasure in calling the attention of the public to the stock sale of Mr. J. K. Martin, of the Clareville Stock Farm, Cayuga, advertised in our columns. Mr. Martin is a breeder of over thirty years standing in the confidence of the public. Unfortunately for him, and fortunately for the purchasing public, he is situated in a locality more given to grain-growing and horse breeding than cattle, sheep and pigs, and, therefore, farmers will find it greatly to their advantage to attend Mr. Martin's sale. His stock is largely bred in the lines of the Bow Park herd, his rams from Experimental Farm stock, his Berkshire pigs from Mr. Snell, and his horses as named in his advertisement.

**Our Scottish Letter.**

We have had a fairly busy month during August, over 100 head of pedigreed Clydesdales having been exported to the United States and Canada. The readers of the FARMER'S ADVOCATE will be mainly interested in the Canadian shipments, and I think it may be said without dispute, that almost all of the exports to Canada have been suitable animals, calculated to improve the Canadian Clydesdales. Messrs. Graham Bros., Claremont, Ont., will not suffer in reputation by the quality of their addition to the Cairnbrogie Stud. The big, grand looking horse Queen's Own, a son of the redoubtable Prince of Wales, and an excellent big mare, will command ready attention. He has plenty of style, and can move first rate. He was the Bute premium horse this season. The yearling colt Symmetry, winner of second prize at Edinburgh, is a useful animal of the type Canadians readily fancy. He was second at Edinburgh, and will be heard of again. The other Clydesdales bought by this firm are well bred animals, got by the celebrated Macgregor, Callender, Craigisla, and that admirable breeding horse Henry Irving of Drumflower.

Messrs. D. & O. Sorby, Guelph, Ont., took away a grand horse in the big son of Darnley, named Grandeur. He was the Glenken's premium horse last year and the Carse O'Gowrie premium horse in 1891. Such a horse will at once be recognized as of quite a superior character. This firm also shipped a fine yearling prize filly, got by McCamon. She was bred in the noted Drummuir Stud in Banff, and is a mare of much promise.

Other shippers have been Messrs. Enright Bros., Brooklin, Ont.; Mr. John Gilmour, Toronto; Messrs. Graham & Son, St. Marys, Ont.; Messrs. Davidson & Sorby, Ashburn, Ont.; Mr. Ben. Allen, Dunlop, Ont.; Mr. John Ralston, Toronto, and Messrs. J. & A. J. White, St. Marys, whose purchase, the well-bred horse Castleby, is not only of improved pedigree but the sort of a foal that cannot be well done without wherever heavy draught horses are reared.

Mr. S. C. Johnston, Manilla, who lost two valuable horses on the Circe, made a renewed shipment of five, got by good horses, such as Lord Erskine and Lord Ailsa, and big sappy horses of themselves. A gentleman who exhibits enterprise such as Mr. Johnston's, merits success, and we trust he may meet with it. Mr. James Drummond, jr., Pitcathie, Dunfmline, who is doubtless well known to several of our readers, has sent over eight well bred horses which should be worth inspecting.

A noticeable feature of the export trade this season is the number of Hackney horses exported to Canada. Almost all of the gentlemen and firms above mentioned have taken away good Hackney horses, not in any great numbers certainly, but horses that will catch the eye of Canadian buyers.

Messrs. Prouse & Williamson, Ingersoll, will have one or two very fair examples of this pacing nag in their stables, and they have recently got away a grand, big Clydesdale horse in Lord Marmion 6003, a massive horse that stood well forward at the Glasgow Spring Show two years ago.

The presence of a number of Canadian draught horses in our market here a few days ago gave rise to some remark. I do not know whether those who sent them over found the speculation remunerative or not, but one of the horses was highly thought of, and, I think, sold for about £80. With our free trade policy, this old country of ours is apt to be the dumping ground of all our friends and relations over the sea. They have now been sending us nearly everything we want for eating for some time, and if they continue as they have begun horses also will be provided. However, we have surmounted all former revolutions in our commercial affairs, and are as a nation much richer than we were, and doubtless we will succeed in accommodating ourselves to this most recent invasion without resorting to any extreme measures of retaliation. The Argentine Republic has been sending all sorts of animals here, and yesterday there was a sale of quite a number of ponies in the market. They are exceedingly wild beasts, and have caused no end of accidents in the process of being broken. I should think it very improbable that any further effort will be made to import these animals into Scotland.

Three draft sales from important studs took place during September. The studs were those of Mr. And. MacKenzie, Dalmore, Alness, Ross-shire, a gentleman who has exerted himself greatly to secure a superior class of breeding horses for the north of Scotland; Colonel Stirling, of Kippendin, whose stud at Kippencross, Dunblane, is a select and successful collection of Clydesdales; and the Earl of Strathmore, at Glamis Castle, from whose old established stud several superior Clydesdales have from time to time been exhibited. It is not to be expected that fancy prices will be realized at these sales, but they will afford a good indication of the drift in average trade horses.

This is the quiet season in home affairs generally, the interest of farmers being concentrated on securing the harvest, which this year threatens to be a matter of some difficulty.

SCOTLAND YET.

**Chatty Letter from the States.**

The rate at which northwestern range cattle are being rolled into market shows that the ranchmen appreciate a good thing when they see it. Their cattle are good and so are the prices, and they are making the most of it. Had this been a bad year for grass on the western ranches, the prices for choice native beef cattle would certainly have been "out of sight." With thousands of rangers, averaging 1,400 and 1,500 lbs., and good enough to be exported alive, it is no wonder the latter have sold at \$4.75 to \$5.12½, while the choicest natives have sold at \$5.75 to \$6.35. Texas cattle have not been coming very good of late. Some of the ranchmen in the Northwest are marketing their entire herds, having become tired of waiting for better times. Those who have good ranges, however, are not complaining. People are beginning to wonder what will be the limit of cattle receipts at Chicago. On several days this year 22,000 head have arrived, and one day 24,000 came, and now the record is again broken with 26,000. Western range sheep are selling very freely here at \$4.00 to \$4.50 for 100 to 115 lbs. stock. The supply of lambs has been large, and the market for them has not been very strong. The American Fat Stock Show will be held once more in the old exposition building, and then the latter will be torn down to make way for the Columbian Exposition. The cattle show and horse show will both be held together this year. The division last year caused both shows to lose money. The crop of good hogs is very short, owing to the high value and scarcity of corn, but, as a rule, the country is full of young pigs, and if corn doesn't get too high to feed there will be plenty of good hogs this winter. The western farmers have not been in as cheerful mood as now for many years. With big crops of all kinds they are getting better than average prices. Mortgages are being released more rapidly than for a long time past.

**Some Excellent Milkers.**

Mr. Alex. Hume, Seymours, Burnbrae, Ont., gives us the following record of his Ayrshire herd for the year 1890, and up the end of July, 1891. On May 1st, 1890, he had 16 cows milking, this number being gradually increased to 23, the whole herd on June 10th, gave up to the end of July, 62,314 pounds of milk, and completed the season, Nov. 15th, with 118,800 pounds to their credit. This season he began on April 16th, with eight cows calved. This number was gradually increased till June 9th, when his whole herd of 22 cows was giving milk, and up to July 31st, inclusive, had sent to Brae factory 69,074 lbs. milk. In the early part of the season (end of May or beginning of June) Mr. McEwan, Dominion Instructor, being at a neighboring factory, tested the milk of this herd and found that it registered 3.75 lbs. per hundred of butter fats which was the highest percentage of milk tested that day. For the three last days of July the weights sent to the factory were 712, 711 and 702 pounds respectively, or a total of 2,125 lbs. for 3 days from 22 cows. One of the herd, Blossom, calved March 9th, and has given to end of July 5,528 lbs. Last year her estimated yield was 9,000 lbs. This year, her milk being weighed daily, is expected to exceed 9,000 lbs., and another has yielded from April 20th, date of calving, to 31st July, inclusive, 4,125 lbs., and others are doing nearly as well.



**Holstein-Friesian Association.**

The members of the Holstein-Friesian Association met in the office of the Secretary of the Industrial Exhibition, Toronto, on September 16th, at one o'clock p. m. In the absence of the President, the 2nd Vice-President, M. Felan, of Oakville, occupied the chair. There were present: R. S. Stevenson, John A. Line, A. Kennedy, E. Pearson, W. J. Breckon, H. Patton, J. W. Lee, W. J. McNiven, P. Stewart, W. McClure, L. M. Charlton, G. W. Clemons, G. Ross, S. W. Hill, H. McCaugherty, Wm. Shunk and D. E. Smith. The report of the Secretary showed that there had been registered during the past four and a-half months 377 animals, and 50 transferred. The following persons applied to become members and were accepted:—H. F. Page, James Elliott, D. R. McDonald, R. Marshall, John Pringle, Major Deuhardt, A. Gifford, W. Armstrong, J. A. Line, J. Fletcher, B. Mallory, A. Woolley, G. White, G. W. Clemons, Deaf and Dumb Institute, G. O. Glass, D. McNaught, V. S. The election of officers was postponed to the annual meeting in February. Discussion in regard to charging a fee and having animals inspected on coming from the States here took place, but action in regard to the matter was laid over till the winter meeting. It was decided that each member of a firm should pay the fees as heretofore. No steps were taken to form Provincial Associations, but it will be more fully discussed at the next meeting. The time was too short to go into the advanced registry, and it was thought best to discuss the matter in the H.-F. Register and try to come to something definite and useful. The receipts during the four and a-half months were \$289.01, and the expenses were \$58.90, leaving a balance on hand of \$230.11. Great interest was taken in the meeting, and all seemed satisfied that the Holstein-Friesian Association had started a herd book, and its success seems now to be firmly established, and the breeders are determined to make this breed known, and their merits tested. It was decided to get a full set of herd books.

**A Holstein Test.**

Messrs. Smith Bros., Churchville, Ont., send the following:—

We herewith send you the result of the testing of eight of our milch cows. It was tested with the Babcock tester:

	Fat
Erie Belle 2nd .....	3.80
Sadie Leake .....	3.50
Hyke 2nd .....	5.00
Onetta .....	3.40
Lillie Tensen .....	3.80
Bixn Funny 2nd .....	3.50
Stepkie 4th .....	4.20
Hedda 2nd .....	4.20
Average of eight head .....	3.92½

This was on grass alone, and during the month of September.

We invite breeders to send us records of what their cows are producing. The above would have been more interesting if Messrs. Smith Bros. had also stated how much milk each cow gave per day, or better still, per season. Let us hear from others.

The Farming World, of Edinburgh, Scotland, says:—"Too many farmers trust to good luck, rather than to a knowledge of the principles that underlie the laws of breeding and feeding. Selection is too often made for form, shape, and color of the animal, while many other essential points are lost sight of, viz., prolific ancestors, docility, barrenness, feeding properties, and early maturity."

**Practical Sheep Breeding.**

[Written for the Dominion Sheep Breeders' Association by Mr. D. G. Hammer.]

The value of sheep to the farm is perhaps not fully understood by many farmers. It is an old proverb that whenever the foot of the sheep touches the land it is turned into gold. Sheep makes the land more profitable—more productive at a less expenditure, than any other animal kept on the farm.

The question of raising sheep for their meat is not an unimportant one. As the population of the country increases the consumption of eatables also increases. The favorite meat, and that which brings the highest price, is lamb, which can now be purchased only as a luxury by those who can afford it.

Sheep farming in Canada does not require large capital invested, and the risk is small, for sheep, if well managed, will not die in debt to their owner. Many farmers manage to have a lot of old, run-down sheep in their flocks, which is bad economy to say the least, and should be remedied or entirely avoided. Now is the time to attend to this matter. By looking over the flock, and selecting out all such as are not doing well, and putting them on as good pasture as can be afforded, with the addition of a little grain, they can be made ready for the butcher by the time winter sets in. So long as a sheep is healthy it can be fattened, but it is not good policy to keep them until they become too old, as it has a tendency to run down the flock and give it a rakish appearance. Every farmer should look carefully over his flock every fall and select out all that cannot be kept longer with profit. It is frequently the case that lambs are let run with their dams too long, which has an injurious effect upon both. So long as they run together the lambs will depend on the milk drawn from its mother for sustenance, which often does not amount to much, consequently both are the worse for not being separated. At about four months is the proper age to wean lambs. Should cold rain prevail during the early fall months, lambs should be put under shelter, and as the season advances they should be kept in at nights and gradually taught to eat. By so doing the change from pasture to dry feed will scarcely be perceptible. As lambs are one of the largest sources of profit to the sheep farmer he should observe every requisite to success in rearing them.

It will not require an observing person to keep sheep many years until he will find out that the main thing in wintering them is to keep them up in the fall, for if permitted to lose flesh then they will scarcely recruit up again during the entire winter.

A practice now prevailing with many farmers, and one which, in our opinion, cannot be too strongly condemned, is that of allowing grade ram lambs of all descriptions to run without castration, not only depreciating their value for the butcher, but is also the cause of many inferior rams going into service, when, by the expenditure of a few dollars, extra pure-bred rams of the various breeds could be secured. We have no hesitation in saying there is little or no excuse for the farmer who will at the present time place an inferior or mongrel-bred ram at the head of his flock. Care and judgment should be exercised in the selection of a ram, as much of the future value of the flock will depend on the impression he leaves on his offspring. A man may save himself a lot of trouble and disappointment by making the head a first principle in establishing a flock. The head of an animal is the main index to his purity of blood, strength of constitution and actual fitness for the service for which he is intended. If you go for breed you look above all to the head; if your aim be style or fashion you must seek this in the head, as nine times in ten that very accommodating phrase known as quality should prove itself by a good head. It is the head that carries impression and sets off the whole proportion; it will overcome many other defects, and will go a long way with judges in determining their awards in the show ring. The man who would succeed as a breeder of sheep must be always aiming higher by a constant endeavor to bring his flock to a more perfect state of perfection.

**Manitoba and N. W. T.**

**Smudging.**

The press of Manitoba and the states immediately south of the boundary line has been discussing the utility of smudging to prevent injury by frost, for some time, and with the result that it has been tried in several places this season. Just how far the results have been satisfactory it is difficult at this time to determine. On the Portage Plains, through the influence of the farmers' institute, a system of co-operation was adopted, and so far as learned up to the present the results were satisfactory. Arrangements were made with the electric light company whereby an electric light was placed on the farmers' elevator, the highest in town, when there was a probability of frost. When the temperature reached the danger line, or, properly speaking, the line at which danger seemed imminent, the light was turned off and on four times per minute for half an hour to an hour. The smudges were lighted on two occasions, and with the exceptions of a few who were not sufficiently interested, or else had not faith enough to prepare smudges, the grain has not been damaged, at least such is the consensus of opinion obtained up to this time. For best results it is necessary to understand the underlying principles, and know why certain causes produce certain results, and be governed thereby. Some persons seem to assume that the heat produced by the burning of the rotten straw or other material composing the smudge fires is the cause of the temperature rising. Others admit the formation of a canopy of smoke prevents the frost from falling and alighting on the fields. It is more than probable, however, that if there was no heat at all from the fires that the smudge would be of great benefit. The earth is heated during the day by the sun and atmosphere, and at night as soon as the air gets cooler than the earth a radiation of heat from its surface takes place. According to the inimitable laws of nature the warm air rises and the cold settles to the earth. By smudging a dense canopy of smoke is formed which hovers over the field enveloping it like a blanket, which prevents to a certain extent the warmth radiated from the earth from rising and the cold air from descending. If smudging is systematically carried out there is not the least doubt but the results will be beneficial. Co-operation is, however, necessary, as a man with a small farm cannot start a smudge with any degree of assurance that he will derive a fair share of the benefits of it, if his neighbors do not also smudge. At Hope Farm, in the harvest of '90, the smudges were lighted on the north and west sides of the farm, and in a short time the temperature had risen three degrees, which is in many instances sufficient to save the crop. In order to arrive at an intelligent conclusion as to the benefits derived from the partial smudging (for it must be admitted that the effort has not been as thorough as it should have been), the ADVOCATE especially requests all who have tried it to send in an account of their success or failures. The consensus of opinion will prove beneficial to all concerned.

The farmer who declares that he can buy fruit and vegetables cheaper than he can raise them generally does not expend much for this purpose, and he oftener goes fruit hungry than the farmer who has a respectable garden and berry patch.



### Farmers' Societies.

#### The Farmers and Organization.

BY ROBERT WILKIE, SECY. DOMINION GRANGE.

It is said that no class is so difficult to organize as the farmers, and none would derive greater advantages from it. Living as most of them do in a half isolated, half independent condition, unaccustomed to any sort of organization except, perhaps, that of the church, it is not at all strange that they do not readily see the advantages of it. As a class they are very conservative (I do not mean politically, for in that respect they are pretty evenly divided); they look with suspicion upon anything which seems to be an innovation of their old usages and customs, and until it has been shown by experience to be of advantage they regard it with distrust or indifference.

Organization was something unknown amongst farmers until very recently, and many of them yet seem to think the good old way of their grandfathers the best, apparently oblivious to the fact that their whole surroundings have changed within their own generation. This, at all events, seems to be the opinion of a majority of them, for notwithstanding the labors of the Grange for nearly two decades, and more recently the Patrons of Industry, it must be acknowledged that a majority of them have successfully resisted all efforts to organize them, and are still playing a lone hand against hopeless odds. We think a mistake has been made by both the Patrons of Husbandry and the Patrons of Industry which has kept out, and put out, a good many good farmers from these societies.

Following the example of other societies, it has been the rule with them to hold their meetings in the evening, which is objectionable in country places in several ways. In towns the members of societies have but short distances and good roads to travel. Their shorter hours of labor leaves them abundant time after the close of the day, and their return home is both short and easy.

In the country many of the members have considerable distances to travel to the place of meeting, frequently through storms and over bad roads in the dark. It becomes necessary for many members to drive to the meeting. Often there is no proper place to leave horses within easy distance, and it is felt unsafe to leave them hitched out in the dark. After the close of the meeting, which is often late, a considerable distance has to be driven home, the team to be unharnessed and cared for. The other members of the family, or hired help, have by this time gone to rest. Failing sight in some cases makes it dangerous to drive in the dark, and the older members feel that attendance at these night meetings has become too heavy a tax upon them, and after a somewhat irregular attendance for some time they finally give it up and drop out. We have never heard any good reason why these meetings should not be held during the day, when most of these objections would be obviated.

There are only few farmers who could not spare half a day once a month, or oftener if necessary, to take part in the business and sociability of their society meeting, returning home in time to attend to the evening work on the farm. This evening meeting is only a custom, and the sooner it is abandoned the better. No one thinks of calling the meetings of an agricultural society at night, and why should the

Grange or association meetings take place then? Many farmers spend more time around the blacksmith shop corner store or village tavern discussing the weather or the latest developments every week than the meeting would occupy, where these discussions could take some tangible form, and, perhaps, result in something beneficial to themselves and the country. Organization is the order of the day, whether the farmer will see it or not. It is going on all around him in one form or another. If he will not see it, he will most certainly feel its effects. He may shut his eyes to it and refuse to acknowledge it, but it is a fact, nevertheless, that everything he buys comes to him through organized channels, and all he sells passes from him through organized boards and associations, who regulate the prices of everything for him, and he is perfectly helpless in their hands.

Millions of capital are invested and controlled by incorporated companies, which are again united and placed under the control of one board of management to destroy competition and control prices. As an instance, the salt organization, which now controls the output of all the wells in Ontario, and which is all sold by one man, the better to preserve the monopoly entire. This salt, which costs the manufacturer fifty cents per barrel, costs the farmer a \$1.50. This is the result of organization. Or, take the Harris Machine Works of Brantford and the Massey Works of Toronto, which have combined. These two great companies will in the end compel all the smaller firms to conform to their terms or close up, and thus destroy all competition. Or, take the article of binder twine. Four or five firms manufacture all the twine in Canada. A protective duty gives them the entire Canadian market, amounting to eight or ten millions of pounds. This has all been handled this year, we believe, by one organization or combination, who fixed the price to the local dealer, allowing him a small margin for selling it, but not enough to enable him to make any cut in the price, unless he gave away all his profit. Such are the workings of organizations.

During the summer of 1889 the millers perfected an organization which they had been working at for some time. They had been speculating in wheat and flour the previous season, and owing to a decline some of them had suffered losses. Apparently to recoup themselves, they fixed a scale of prices to be paid for wheat, which enormously reduced the value of wheat which fell below standard weight, and also reduced the amount of flour to be given in exchange for wheat when an exchange was made; but some of them refused to exchange, and would only sell the flour and buy the wheat, fixing the price of both themselves.

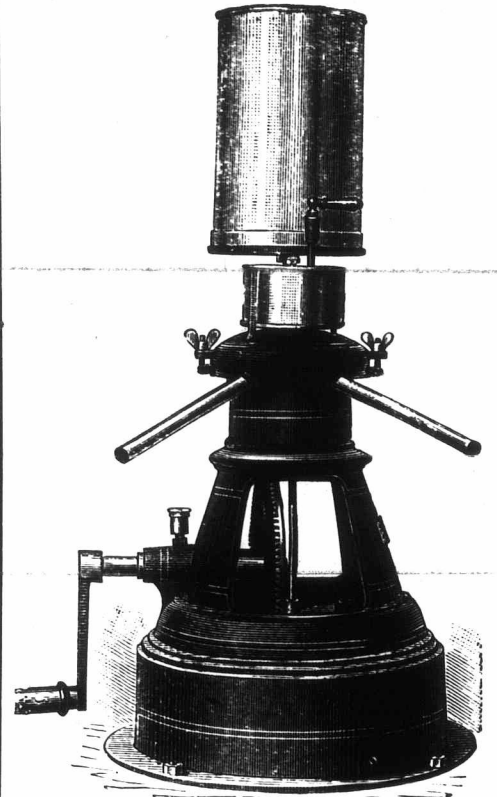
At this time the duty on flour was fifty cents per barrel, equivalent to eleven cents or better per bushel on wheat. With all this, they had the cheek to send an agent through the country to attend the institute and farmer's meetings to agitate for an increase in the duty on flour to a dollar per barrel, stating that this would enable them to pay the farmers more for wheat. Some of the meetings passed resolutions in favor of the increase in duty, and the result of it all was that the duty was increased to seventy-five cents per barrel, equivalent to nearly seventeen cents per bushel on wheat.

The market opened this year for new wheat at 90 to 95 cents, but a meeting of the Millers' Association was held in Toronto on the 4th of Aug. and a report was adopted then to reduce the price of wheat at once to an export basis, which was immediately done, and this was how the increase of the duty helped the farmers. It may not be easy to see that combinations and organizations which are working around us can be successfully met, but it is very clear that single-handed and alone the farmer is powerless and helpless. If anything is done organization must be the first step towards it; but once let the farmers of this country become thoroughly organized and ways and means will be found to speedily correct their grievances, for they will be a power before which the greed and avarice of the combinations and monopolies must go down, but they must not wait, halt or waiver, remembering that "eternal vigilance is the price of liberty."

### The Dairy.

#### Cream Separators Tested.

A special feature of the Royal Show at Doncaster, Eng., this year, was the testing of cream separators, under the direction of the Royal Agricultural Society of England. It was, we believe, the first trial when special means have been adopted to test the actual power consumed by each machine per gallon of milk separated. This was tested by driving each machine with an electrical dynamo, and afterwards checked by the old-fashioned hand dynamometer. Prentice's patent dynamo was used, and Mr. Prentice himself undertook the management. The other points considered were: mechanical construction, means of cleaning, capacity and cleanness of skimming. The judges were: R. Neville Grenville, Butley Court, Glastonbury; T. Rigby, Sutton Weaver, Warrington; Dr. J. Augustus Voelcker, 12 Hanover Sq., London; and on constructive points the machines were examined by Wm. Anderson, C. E., D. C. L., F. R. C. S., of Lesney House, Erith. The trials extended over five days, and the awards as under: For power machines suitable for steam, water or horse



ALEXANDRIA.

power, first prize of \$150 to R. A. Lister & Co., Dursley, Gloucestershire, for their patent, "Alexandria" machine, which is made in four sizes, thus defeating the following power machines: The Laval "Reading Royal," the Laval "Alpha," C. H. Petersen's Danish machine (Burmeister and Wains), and the "Victoria" exhibited by Messrs. Freeth and Pocock.

Since the above was written the Alexander No. 8 hand separator has been imported to Canada, and was on exhibition and tested at the Western Fair, London. It did its work perfectly, and turned so easily that a child could operate it. Messrs. John Pearce & Co. are the agents for this machine.

Agricultural depression is not confined to the American continent. It prevails in all parts of the world except France. British farmers are worse off; in twelve years they have sunk half their capital.

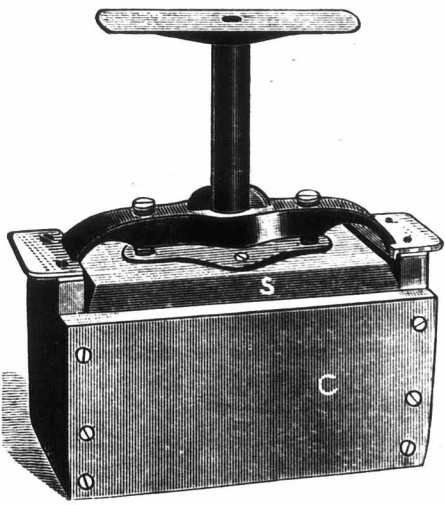


**Milk Preservatives.**

In a small pamphlet entitled "Instructions to the Patrons of Creameries, Printed by Order of the Creameries Association of Ontario," the use of a substance called "Preservaline" is recommended, where Saturday night's milk is to be held over till Monday morning. Many other suggestions in this circular are excellent, but this we cannot endorse, for several reasons. In the first place the use of these so called "preservalines" is not necessary, and is apt to prove a lazy man's resort to cover up the consequences of filth or carelessness in handling the milk after it comes from the cow. Many of the largest patrons of our cheese factories and creameries are able to keep milk pure and sweet from Saturday night till Monday morning by means of thorough aeration, cooling and proper care subsequently, and others can do the same. Once a dairy farmer gets the idea that by pouring a quantity of "preservaline" into his can of milk it can be kept from souring or developing taint, then good by to that scrupulous and rational care that all milk should receive if choice and wholesome butter and cheese is to be produced. Those who have at heart the interests of dairying in this country should oppose anything and everything tending to carelessness or uncleanness. In the last place "preservaline" has been found on analysis by competent chemists to contain large quantities of boracic acid, which is quite injurious to health—in fact so much so that its use has been condemned by eminent authorities, and forbidden in various European countries. Unscrupulous milkmen in cities and towns during hot weather have been detected resorting to such antiseptics as boracic acid, utterly regardless of the well being of infants and invalids of whose food milk constitutes such an important part. Such compound should be rigidly banished from the farm dairy.

**Mechanical Aids in Dairying.**

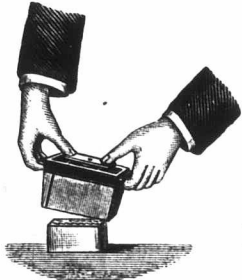
The illustrations given from time to time in this department of the ADVOCATE have been appreciated, and we find a growing interest on the part of progressive dairymen in improved appliances, whereby labor is lightened economically, and dairy products turned out in more attractive style. Continuing the series we present cuts of two butter printers for use in private dairies or creameries.



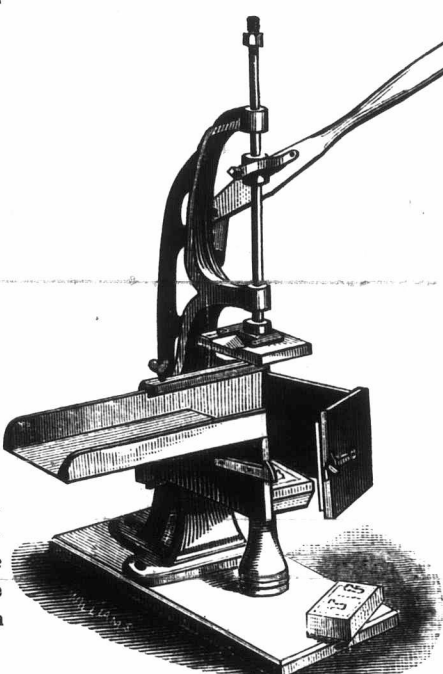
CARVER'S MOULD AND STAMP.

After the butter is worked free of water and buttermilk, and salted ready for market, the Carver mould is used on the mass something after the manner of the housewife in cutting out cakes from the rolled dough on a bake board.

We have tested it and found that it works as represented, turning out a neat pound print nicely stamped on the top. The top trimming



on the stamp has a screw-threaded shank entering a screw-threaded socket in the handle. When turned to the right it holds the stamp in place. The weight can be governed by the adjustable screws. The stamp and mould are made of hard maple, and the trimmings of nickel plated gun metal. The wooden stamp, which can be carved with any initials, or simple design, moves freely up and down in the mould and pushes out the print when formed. The Carver mould is used in the Ontario Agricultural College dairy, and was used in the Travelling Dairy described in the August ADVOCATE.



I X L SELF-GAUGING PRINTER.

The I X L Self-Gauging Butter Printer is designed not only to print the butter, which it does very neatly and quickly, but also weighs or gauges into pounds or half pounds, as desired, in one quarter the time it can be done by hand, making neater prints and more accurate in weight. As the moulds are square it will be found very convenient in packing for transportation. Mr. J. S. Pearce, London, Ont., head of the well-known firm, reports that it has given good satisfaction to his customers.

Regularity and punctuality are prime elements of success in farming, as in other callings.

There is a meat famine in Berlin. The Bundesrath is urged to repeal the laws against the importation of meat. Values have already advanced 20 per cent.

The "hog butter" product of Chicago is greater than the legitimate output of Iowa and New York. That is to say Chicago, without a cow, produces from lard and tallow more pounds of substitutes for butter than the greatest dairy states in the union produce from their slick cows, of genuine butter.

**A Jersey Tested.**

Messrs. Ayer & McKinney, Meridale Farm, Meredith, Delaware Co., New York, write us under date of Sept. 10th, 1891:—

We have lately made a test at Meridale Farms which has been of unusual interest because it was that of the first daughter to come in milk of Ida of St. Lambert's Bull 19169. Queen of Pomona 56250 was dropped March 31st, 1889. When she was two years and four months old she dropped her first calf, June 14th, 1891. The test was made from Aug. 5th to Aug. 12th, 1891. During the 7 days she gave 138 lbs. and 8 ounces of milk, which produced 52 pounds of cream; from this was made 16 pounds and 10 ounces of unsalted butter, which netted 16 pounds and 6 ounces of butter salted one ounce to the pound and well worked. During the 7 days she was fed 150 pounds of grain, which consisted of cornmeal, oatmeal, bran, peameal, and oilmeal. In addition to this she had poor pasture and some green Oats and green Peas. During the entire test she ate freely and could easily have been pushed to a much higher point.

Naturally we were greatly interested to see whether the first test made from the daughters of this famous bull would equal our expectations. We believe we have every reason to be more than satisfied with this test, and shall be very much surprised if another year Queen of Pomona 56250 does not very materially raise the figures here given.

Two or three of his daughters are shortly due to calve, and give every indication of being fully equal to this one. We invite other breeders to send us records of any tests made.

**Farmer's Advocate Milking Trials.**

The competition for the beautiful set of silver plate which was offered by the FARMER'S ADVOCATE for the herd of three cows which showed the largest returns in the value of their milk for the value of the feed which they consumed, was held in connection with the Industrial Exhibition at Toronto. The following are the rules which had been prepared by Prof. J. W. Robertson, and had been announced previously, for governing the tests:—

1. Cows of any breed or age may be entered for competition. The cows of each lot entered may be the property of one or more persons. No lot shall contain animals of different breeds. No lot shall contain pure-bred and grade cows. Grade or native cows forming one or more lots will be admitted upon equal terms with the others, but the animals of each lot, which are not entered as pure-bred, must be the grades of one breed.
2. Each competing lot shall be composed of three cows. The competition shall be between the lots and not between the several cows. The person in whose name the entry is made shall declare the age of each cow, the date of her last calving and the time of service, if pregnant.
3. Each entry shall be made to the Secretary of the Toronto Exhibition, on or before Saturday, August 15th, 1891.
4. The tests of the competition shall extend over three days. The milking shall be performed at the times each day to be appointed by the person in charge of the tests.
5. All cows entered for competition shall be milked clean to the satisfaction of the person in charge of the tests, on the morning and evening of the day previous to the beginning of the tests.
6. There will be no restriction as to the quantity or temperature of pure water that may be given to the cows, or as to the quantity of salt that may be fed. The feed shall be provided by the persons in charge of the several cows or lots. The several kinds of feed shall be valued at current market prices by the person in charge of the tests. Representative samples of the feed shall be open to the inspection of all persons interested.
7. The quantity of feed consumed by each lot during three full days shall be valued. The three days shall be counted from one day before the first milk for the test is taken, until one day before the last milk for the test is taken.
8. The milk from the several lots shall be valued at sixteen (16) cents per pound of total butter fat contained in it, together with two and a-half (2½) cents per pound of total solids—not fat—contained in it.



9. Counting from ninety (90) days after the date of last calving, five (5) per cent. additional value shall be added to the valuation of the milk for every thirty (30) days thereafter (and proportionally for every part thereof) up to the end of eleven months after calving. Counting from ninety (90) days after the date of the last service (if pregnant), two (2) per cent. additional value shall be added to the valuation of the milk for every thirty (30) days thereafter (and proportionally for every part thereof) up to the end of two hundred and thirty (230) days after service.

10. Milk of unpalatable flavor, or abnormal as to the nature of its constitution and quality for human food, or for manufacture into fine dairy products, shall be rejected.

11. The lot of cows whose milk shows the largest profit from the food consumed, according to the forementioned scales, will be awarded the prize of a silver service, value \$85, given by the editor of the FARMER'S ADVOCATE AND HOME MAGAZINE, London, Ont.

12. The decision of the person in charge of the tests shall in every case be final, and the animals and premises where they and their feed are kept shall be under his supervision. No feed shall be fed at any time during the time of the test without being weighed or measured by himself or assistant.

13. The prizes will not be awarded unless at least three lots compete, two of which must be of distinct and different breeds.

Mr. Frank T. Shutt, M.A., F.C.S., Chief Chemist of the Dominion Experimental Farms, and Prof. Jas. W. Robertson, as announced, conducted the tests. The hearty thanks of the Toronto Industrial Exhibition Association, of the exhibitors, and of the FARMER'S ADVOCATE is due to these public-spirited gentlemen who so ably and carefully performed their toilsome duties. The following is the joint

REPORT:—

SIR,—We have the honor to report on the special milking competition which was conducted in the fair grounds during the holding of the Industrial Exhibition at Toronto, on September 16th to 18th, 1891.

A list was furnished to us with the names of some sixteen stock breeders who had made entries for the trials. Only six competitors actually engaged in the competition. A meeting of those who were prepared to go on with the

tests was held, when it was unanimously agreed that the trials should extend over only two days instead of three. Many of the cows which had been entered for the milking contest were wanted for the show ring on the grounds, and the owners desired that the "milking out" examination should be deferred until after the judging in the rings was finished.

The stable accommodation was not convenient for maintaining a strict supervision of the milking of each cow, neither was it suitable in other respects for conducting a milking test in a manner entirely satisfactory.

The period of two days was too short to admit of a fair comparison between the value of the feed and the worth of the milk. Of course the conditions were the same to all the exhibitors; but if these milking competitions be continued, their servicability will be increased by an extension of the period to at least six days.

TABLE SHOWING THE QUANTITIES AND VALUES OF THE MILK, CALCULATED ACCORDING TO RULES 8 AND 9.

Name of Competitor.	Breed of Cows.	Name of Cows.	Date of Milking.	Weight of Milk	Percentage of Fat.	Percentage of Solids other than Fat.	Value of Milk.	Date of Calving.	Date of Service.	Allowance for Time according to Rule 9.	Total Value for Each Cow.	Total value for 3 Cows for 2 Days.	
							Cts.			Per-cent- age.	Val'e in Cents.	Cts.	
D. Morton & Sons.	Ayrshire	Judy.....	Sept. 16-17	30.0	4.3	8.96	2.59 lbs. butter fat at 16c.	July 10			53.46	175.03	
"	"	Blue Bell.....	" 16-17	25.25	4.8	8.50	4.81 lbs. other solids at 2 1/2c.	Dec. 4	May 2	35.7	16.95		
"	"	Jess.....	" 16-17	20.75	5.4	8.80	4.08 lbs. other solids at 2 1/2c.				64.43		
Mrs. E. M. Jones.	Jersey	Mulberry.....	" 16-17	16.25	4.8	8.29	2.77 lbs. butter fat at 16c.	June 12			57.14	122.79	
"	"	Lilium 1st.....	" 16-17	17.00	5.2	8.94	5.13 lbs. other solids at 2 1/2c.	July 19			33.73		
"	"	Princess.....	" 16-17	18.50	5.3	9.09	2.87 lbs. butter fat at 16c.	Mch. 6	June 10	17.8	6.05		
Mrs. E. M. Jones	Jersey	Clothilde.....	" 16-17	18.00	6.5	9.33	1.64 lbs. butter fat at 16c.				33.99	99.33	
"	"	Jetsam's May.....	" 16-17	18.00	6.8	9.03	3.42 lbs. other solids at 2 1/2c.	May 24	July 15	4.1	1.93		
"	"	Bell Temple 2nd.....	" 16-17	15.25	5.7	8.95	1.58 lbs. butter fat at 16c.	Aug. 1			32.08		
"	"	Lilium 2nd.....	" 16-17	17.50	8.0	8.65	2.72 lbs. other solids at 2 1/2c.	July 15			39.24	39.24	
Joseph Yuill.....	Ayrshire	Spotted Maid.....	" 16-17	11.00	4.6	8.88	2.64 lbs. other solids at 2 1/2c.	Apr. 25	Aug. 11	9.1	2.33	28.01	160.86
"	"	Meadowside Lass.....	" 16-17	14.75	5.1	8.33	1.26 lbs. butter fat at 16c.	Nov. 19	Mch. 17	42.8	14.96		
"	"	Effie.....	" 16-17	26.00	3.5	8.08	3.81 lbs. other solids at 2 1/2c.	Dec. 5	Feb. 3	41.3	15.66		
Wm. Stewart, jr.	Ayrshire	Mayflower.....	" 16-17	21.50	4.0	7.20	1.59 lbs. butter fat at 16c.	Nov. 2	Feb. 9	46.7	18.25	57.34	149.02
"	"	Lady Menie.....	" 16-17	39.0	3.7	8.20	1.79 lbs. other solids at 2 1/2c.	July 10			52.05		
"	"	Alice.....	" 16-17	41.25	4.1	8.95	4.18 lbs. butter fat at 16c.	Aug. 1			63.46		
Dawes & Smith.....	Jersey	Opakella.....	" 16-17	18.50	4.1	8.33	2.59 lbs. other solids at 2 1/2c.	June 13	Aug. 5	0.8	0.26	33.51	132.87
"	"	Pride of the Wil- lows.....	" 16-17	13.25	7.4	10.60	1.90 lbs. butter fat at 16c.	Apr. 2			36.42		
"	"	Kit.....	" 16-17	11.75	7.8	9.22	3.38 lbs. other solids at 2 1/2c.	Aug. 27			44.46		
"	"		" 17-18	21.50	6.4	8.95	2.21 lbs. butter fat at 16c.	Apr. 12	June 4	12.0	5.07	47.33	
"	"		" 17-18	16.00	5.2	8.90	2.76 lbs. other solids at 2 1/2c.						

In the following table is recorded the kind, weight and value of the feed consumed by several herds during the test:—

QUANTITY AND VALUE OF THE FEED CONSUMED BY THE SEVERAL HERDS.

KIND OF FEED.	D. Morton & Sons' Ayrshires.		Mrs. E. M. Jones' Jerseys (Lot A).		Mrs. E. M. Jones' Jerseys (Lot B).		Joseph Yuill's Ayrshires.		W. Stewart's Ayrshires.		Dawes & Smith's Jerseys.		
	Value per ton.	Quantity consumed.	Value.	Quantity consumed.	Value.	Quantity consumed.	Value.	Quantity consumed.	Value.	Quantity consumed.	Value.	Quantity consumed.	
Grass.....	\$ 3	84	252	187 1/2	561	155 1/2	466 1/2	471	135	405	105 1/2	316 1/2	
Hay.....	10	11 1/4	112 1/2	12 1/2	125	125	125	125	21	210	21	210	
Corn stalks (green).....	3	4	12	1 1/2	4 1/2	4 1/2	4 1/2	4 1/2	135	405	105 1/2	316 1/2	
Corn stalks (wilted).....	4	3	12	1 1/2	4 1/2	4 1/2	4 1/2	4 1/2	20 1/2	81	81	81	
Wheat bran.....	15	2	30	1 1/2	15	15	15	15	23 1/2	352 1/2	352 1/2	352 1/2	
Peameal.....	20	2	40	11 1/2	22 1/2	22 1/2	22 1/2	22 1/2	19 1/2	390	390	390	
Oil meal.....	30	2	60	19 1/2	58 1/2	58 1/2	58 1/2	58 1/2	3 1/2	105	105	105	
Roots (mangels or carrots).....	3	9 1/2	28 1/2	14 1/2	43 1/2	43 1/2	43 1/2	43 1/2	23	69	23	69	
			33.93		60.07		51.71		54.61		54.87		27.03

From the above data the subjoined table has been constructed, which shows the relative standing of the competing herds in their order of merit:—

Table Showing the Returns, in Value of Milk, per Dollar's Worth of Feed Consumed.

Name of Competitor.	Breed of Cows	Value of Milk.	Value of Feed.	Return per \$1.00 worth of feed.
D. Morton & Sons.	Ayrshire	\$1.7503	33.93	\$5.15
Dawes & Smith.	Jersey	1.3287	27.03	4.91
Wm. Stewart, jr.	Ayrshire	1.4932	24.87	4.57
Joseph Yuill.	Ayrshire	1.6086	54.61	2.94
Mrs. E. M. Jones.	Jersey	1.2279	60.07	2.04
do.	Jersey	.9933	51.71	1.92

From the foregoing data the awards have been made as follows:—  
 First prize, D. Morton & Sons, Hamilton, Ont.  
 Second prize, Dawes & Smith, Iachine, Que., and Grimsby, Ont.  
 Third prize, Wm. Stewart, jr., Menie, Ont.  
 All of which is respectfully submitted.  
 JAS. W. ROBERTSON.  
 FRANK T. SHUTT.



**Feeding Turnips.**

The Pilot Mound Sentinel refers to the statement of Mr. J. T. Gordon, who has just returned from England, to the effect that the cattle that had been fed on turnips last winter, kept a fine bloom and were eagerly sought after by English buyers. This is eminently correct; but to be intelligently understood it should be stated that Mr. Gordon started for England with his cattle early in the spring, just when the turnip fed animal would show the benefits of the succulent food to the fullest possible extent. In winter turnips are highly beneficial, as their succulence keeps the digestive organs in a condition that could not be obtained by any other means. Turnips fed in the fall, when there was plenty of grass, would, however, be, to a very great extent wasted, as their succulence would not be required, and the ten per cent. of solids would be all that would be of any use. In winter the water has a value the chemist is not able to compute, from the fact that succulence, which is a state and not a quality, is absolutely essential to securing the best results from the grain fed, not because the turnips are more nourishing in winter than summer or autumn, but because their succulence is essential to the digestion and assimilation of other foods. The value of turnips as food for animals is to many an enigma, and if farmers generally had a better conception of the manner in which turnips benefit animals there would be many more grown.

**Western Fair Butter Test.**

In accordance with an announcement made in the FARMER'S ADVOCATE, a two-day butter producing contest, seven cows competing, took place at the Western Fair, under direction of Mr. C. A. Zavitz, Superintendent of Experiments at the Ontario Agricultural College. Special 1st and 2nd prizes of \$100 and \$50, respectively, were offered by the American Shorthorn Breeders' Association for cows of that breed making most butter in two days, and the Western Fair board offered a sweepstake prize of \$50 for the cow of any pure breed, including the winners in the former, making the most butter in two days. It was decided, after consulting with dairy expert authorities and others, not actually to make the butter, but to weigh each of the four milkings of each cow, and with the Babcock machine test its percentage of butter fat, estimating the total fat product being then a mere matter of multiplication and addition. Of course, on the assumption that all the fat in the milk was worked into good commercial butter, the result would be say 12 per cent. greater, which would make the butter product of the sweepstake winning cow in the two days about 2½ pounds instead of 2¼ as shown on the report, because, as our readers are well aware, fairly good butter contains from 12 to 15 per cent. moisture, caseous matter, etc., besides the fat. The breeds competing were Ayrshires, Shorthorns and Jerseys, and the first named, a cow owned by Mr. Ballantyne, of St. Marys, carried off the sweepstakes. No grade cows were eligible for this contest, which in the view of some was scarcely fair to many useful and highly profitable cows to be found in the herds of most of our dairy farmers. On the other hand it is contended that the object is to encourage pure breeds, but for all that the average farmer will continue to rely on grades of one breed or the

other according to his taste and conditions. Mr. Zavitz's statistical report of the trial, which we give as follows, is deficient in that it does not give the weights or quantities of the food consumed by the cows during the test, information which our readers would have appreciated:—

Name of Animal.	Name of Exhibitor.	Breed.	Age of Animal.	Time of Calving.	SEPT. 23rd.		SEPT. 24th.		Total Butter Fat Lbs. in Milk.	Total Butter Fat Lbs. in Milk.	Food Used in Test.
					MORNING.	EVENING.	MORNING.	EVENING.			
Nancy (1885)	Michael Ballantyne	Ayrshire	10 years	May, 1891	Lbs. 14.50	Lbs. 15.16	Lbs. 15.75	Lbs. 16.41	4.10	4.76	Peas and oat chop, bran and hay.
Kita Jac (1876)	G. & P. Smith	Jersey	4 "	April, 1891	Lbs. 11.56	Lbs. 11.53	Lbs. 10.88	Lbs. 10.41	4.90	5.83	Peas and oat chop, bran and hay.
Matilda (8th) (use prize, \$100)	Thos. Russell	Shorthorn	3 "	Sept. 1, 1891	Lbs. 14.50	Lbs. 13.99	Lbs. 17.00	Lbs. 17.00	3.49	3.85	Peas and oat chop, bran and hay.
Eva	Geo. Hill	Ayrshire	3 "	June, 1891	Lbs. 13.00	Lbs. 12.06	Lbs. 13.28	Lbs. 13.28	3.89	4.76	Oatmeal, bran, mangel, clover, hay and corn stalks.
Jennie of Anthenbrain (1808) (2nd prize, \$50)	Kains Bros.	Ayrshire	10 "	Aug., 1891	Lbs. 11.50	Lbs. 12.86	Lbs. 15.42	Lbs. 15.42	2.49	3.84	Oat and pea meal, bran, oil cake, cut hay & corn stalks.
Milred	W. Watt	Shorthorn	4 "	Aug., 1891	Lbs. 5.50	Lbs. 5.50	Lbs. 5.75	Lbs. 5.75	3.92	3.92	Chopped oats, bran and hay.
Kirklevington Dutchess 7th	James Cramer	Shorthorn	4 "	March, 1891	Lbs. 1.75	Lbs. 1.63	Lbs. 1.44	Lbs. 1.44	7.08	7.53	Oat, pea and barley meal; hay cut & long, and corn stalks.

It is very essential that there should be a work shop on the farm. If it is not possible to have a separate building or room, then put a work bench in the stable, or granary. Good tools and a plentiful supply of them are essential on the farm. Choice work cannot be done with old half-ruined tools.

**Cream Separation.**

What mode would you recommend for separating the cream from the milk of 30 cows? I wish to make butter of a high grade to supply customers in a large city. P. R.

ANSWER.

In reply to above would say that we think the best and nicest way for you to separate the cream from the milk of your 30 cows would be with the hand separator, or a small power one. The DeLaval Baby No. 2 hand separator is a very perfect and thorough working machine, and has given perfect satisfaction wherever introduced. The following testimonials, handed us by John S. Pearce & Co., of this city, who handle these separators, speak for them:—

TESTED IN BRITISH COLUMBIA.

"The 'Baby Separator,' style No. 2, arrived on the 18th in good order, and is giving perfect satisfaction. It does all it claims to do, and the separation is complete. From my fifteen cows it gives an increase of four pounds of butter per day over the shallow pan system. I had no trouble whatever in setting it up, and find it very easy to operate and clean. Our women folks are delighted with it; they say the dairy looks so much better without the milk pans.

Yours, etc.,

ALEX. LOCHORE.

Northarm, B. C., July 22nd, 1891.

COMMENDED BY THE PRESS.

The Agriculture editor of the London Advertiser in writing about these machines says:—

"It not only does away with the great labor of can washing, skimming, etc., involved in the gravity process, but gets from 10 to 25 per cent. more cream from the same quantity of milk. The writer tested the machine personally, finding it very easy to run, the separation beginning about one minute after the milk, as brought in from the cows, started to run in. The morning's milk had been held over till evening, and was then warmed up to about 80° before separating. The machine seems to be able to spin impurities, foul orders, and disagreeable tastes from the milk. The skim-milk is perfectly sweet for domestic and other purposes, and the young stock thrive on it."

TESTED IN OXFORD, ONT.

Mr. Geo. Graves, an enterprising dairyman near Ingersoll, Oxford county, who purchased a Hand Separator last spring for use in his dairy, after several months experience stated that he had no trouble in running it, and thinks it just about as near perfection as it is possible to get along that line. In fact he would not think of running his creamery without it, and believes he will save enough this summer to pay him for the \$150 outlay. He has been able to separate as much as 270 pounds of milk in an hour.

ONTARIO AGRICULTURAL COLLEGE TEST.

"It gives us great pleasure to write you and say that we have been using one of the No 2 De Laval Separators for some time, and like it extremely well. It has several points of merit over the ordinary methods of creaming milk.  
 1st. It runs easy and turns about the same as an ordinary fanning mill.  
 2nd. The labor in taking care of the milk and cream is much less with the Separator than in the usual ways, there being but few pails, pans, etc., to wash and keep clean.  
 3rd. The milk is skimmed as soon as it comes from the cow, and only the cream need be taken to the dairy.  
 4th. The skim-milk is sweet and warm, for feeding calves and other young stock; which is a great advantage.  
 5th. Almost all the cream or butter is obtained; 1-10 of one per cent. of fat in the skim-milk, or about 1½ ounces of butter in 100 pounds of milk, being all there is left after passing through the Separator, if the work is properly done.  
 6th. There is no doubt that the Hand Separator is destined to be the coming method of creaming milk, in the farmer's home.  
 Yours sincerely,  
 H. H. DEAN,  
 Prof. of Dairying, Ont. Agric. College, Guelph."  
 "P. S. The cream must be immediately cooled to 45 or 50 degrees after coming through the Separator. This is important."  
 Guelph, June 16th, 1891.

Scarcely anything makes farm life more enjoyable than plenty of home grown, fresh and well-ripened fruit and vegetables to which each can help himself without stint.



### Veterinary.

#### Domestic Veterinary Treatment of the Animals of the Farm.

BY WM. MOLE, M. R. C. V. S., HAMILTON, ONT.  
WOUNDS—(CONTINUED).

Before continuing the subject of wounds due to the shoeing, let us first consider one class that can be dismissed at once.

**Staked Wounds.**—These are always formidable injuries for anyone to undertake, and when possible a qualified veterinary surgeon should always be consulted; but for immediate remedial measures, adopt the following:—Should the stake have penetrated into the abdomen any distance and allowed the bowels to escape, cast the animal on its back, return the bowel after washing in warm water free from all dirt; next procure a few good strong pins and pass across as described in the interrupted suture; afterwards pass a sheet round the whole of the body, strapping tightly over the whole a surcingle; dress with carbolized oil twice a day. Give internally a teaspoonful of fatigue medicine, night and morning, and many cases will recover that look most formidable. We would strongly advise the administration of chloroform in such operations as returning extruded intestines, as the struggles of a conscious animal are a terrible obstacle to manipulation and rapid performance, but that does not really come under domestic veterinary treatment.

Wounds caused by the blacksmith in shoeing are very painful, and should always be closely attended. They most frequently occur in weak shelly feet, with very thin quarters, and sometimes due to the over-rasping by the smith until there is little to hold the nails; in the case of old nail stubs being left in the hoof from a former shoeing so as to turn the nails upwards instead of outwards, or from lamination of the nails themselves, or simple binding of the sensitive laminae of the foot will often cause obscure, intermittent lameness, and is often described by blacksmiths as crowding of the nails. Treatment: In slight cases the withdrawal of the nail may be all that is necessary; if, as commonly happens, an abscess is detected, whether it arises from a prick, or a badly driven nail in shoeing, or picking up a nail on the road or any penetrating wound of the foot the treatment will be the same. The matter must be allowed free exit by making a dependant orifice without unnecessary removal of the substance of the hoof. The foot should then be soaked in warm water for a couple of hours, a linseed and bran poultice applied for two days afterwards; the shoe should be then applied and a dressing of tar and linseed meal padded with tow and secured by two crop splints of wood or iron. Penetrating wounds of the foot, apart from shoeing, are more frequently met with in towns and cities than on the farm. The accident is most frequently caused by the horse placing his foot on the head of the nail and tilting the point upwards, the great weight of the body facilitating penetration. Some of the most serious wounds are met with in the feet of horses removing timber from plantings, hauling lumber or treading on harrow tines. Such wounds are often very serious from the penetrating object breaking short off in the tissues and the horn closing over it. It is apt to be overlooked in examination. In most cases the lameness is very severe a day

or two after the injury, and the animal stands with the toe resting on the ground flexing the fetlock joint.

In seeking for evidence of the penetration of foreign bodies into the foot every suspicious black mark should be carefully cut out by the blacksmith, the horn be carefully trimmed and the mouth of the wound freely opened, an antiseptic dressing placed over the part and the carbolic oil fully applied. It is always advisable when throwing an animal completely off work in good condition to give a dose of purgative medicine. Six drachms of aloes in the form of a ball is to be preferred.

There is no doubt that within the last ten years there has been a very remarkable diminution in the number of injuries to the horse's foot, from the fact that blacksmiths are better acquainted with their work, and the introduction of machine-made horse nails, they being better made and more uniform in quality, and the pointing being entirely outside the work of an incompetent man. There is just one point that might be mentioned in connection with horse shoeing. Farriers or shoeing smiths ought and should be registered and receive a certificate from some well constituted body of their fitness to practise the art of horse shoeing, and no man allowed to shoe a horse until he knows something of the anatomy and structure of the horse's foot.

#### SCRATCHES, OR MUD FEVER.

An open, mild, or wet winter causes a most annoying set of diseases to be common, and renders imperative the frequent cleaning of horses' legs and feet from the muddy clay that adheres to the hair on all horses used on clayey lands or muddy roads. By the adoption of a plan of management which is perfectly simple and at the same time effectual they may all be prevented. Ordinarily horses on returning from work have their legs, and probably a portion of their bodies, scraped and washed, or else walked into the pond or stream. The subsequent process of drying, if attempted at all, is imperfectly performed, and the surface of the skin is left moist and cold, the horses stamping to throw off the superfluous moisture and get some heat into their legs causes them to be uneasy all night.

This lays the foundation for all ills that follow, Mud Fever, Scratches, Grease and Cracked Heels. Experience has proved that leaving the wet mud on the legs of the horses returning from work until the following morning, when it can be brushed or rubbed off easily, is the best. In adopting this plan the use will be found for the long hair which grows on the fetlocks, and known among horsemen as the feather. This protects the skin from injury, the mud adhering to the hair and leaving a free space between through which the natural perspiration can escape. To cut the hair off, as is sometimes unwisely done, is to leave the legs unprotected, the mud clogs up the pores of the skin and acts as a blister which peels off and leaves a gaping sore. These sores are called scratches, mud fever or cracked heels, mallenders, which appear in the bend of the knee, sallenders in the hock. Experience has shown that if mud can be washed off at once by driving the animal in a stream and continuing the journey home no harm results. The mischief is done by the washing when the animal has arrived home, and is to remain stationary with wet legs for the night. In the case of light buggy horses it is considered advis-

able to wrap the muddy legs in flannel bandages; hay or straw bands will form an effective substitute in the case of the farm horse, but the essential thing is to refrain from washing or attempting to remove the mud until it is dry enough to be well curried and brushed off. If this plan is adopted there will be an end to cracked heels, etc., but when they are present, a good application is the carbolic liniment three times a day, or an ointment of oxide of zinc 1 part, lard 8 parts. A moderate laxative diet, a slight dose of purgative medicine is all that is required in recent cases. If of a severe and chronic character long continued attention will be required, and a regular course of medicine must be carried out.

**Corns** in horses' feet are simple bruises of that part of the sole included between the bars and wall of the hoof, and generally induces a certain degree of inflammation, causing pain, heat and consequently a good deal of lameness which is characteristic. The horses make a great effort to relieve the pressure of that particular part by bearing more weight on the opposite side to the one injured, and goes better on soft ground than hard. The shoe should be removed, the parts pared down and a little blood withdrawn. This is good practice, and quickly relieves the congested vessels. A bran and linseed meal poultice should be used, afterwards applying a leather sole and a bar shoe to the foot. Sometimes the corn will inflame and suppurate, or quickly make its way out at the top of the coronet, and is then termed a quittor. To prevent this unmanageable wound carefully pare down to the seat of injury, and give free vent to the accumulation of matter. Poulitices in cases of this kind are indispensable, and must be frequently reapplied until all signs of inflammation are removed. Should, unfortunately, such a wound appear, and you cannot get surgical assistance proceed as following:—

A quittor may be termed a wound on the coronet connected by a sinuses or channel into the foot, they usually appear as before said on the inner side of the foot, resulting from a corn. It appears first as a conical swelling, so painful as to cause considerable lameness. Its formation is generally slow, and not unfrequently the slight lameness is not noticed or cared for until the wound is discharging matter, when it becomes more painful. Draught horses with large, open, flat feet, with low heels are more subject to this disease than saddle or carriage horses. Treatment: Poulitices to the foot, opening out all sinuses, freely evacuating pent up matter, caustic solutions syringed into the openings, and a long rest are the proper means of a cure. Many cases take on a chronic character, and experts find great difficulty in bringing some cases to heal. Little or no trouble will result if treated as above. Many cases respond to a few injections of the chloride of zinc of a strength five grains to the ounce of distilled water.

**Thrush in horses' feet.**—Foul in the foot of cattle, Foot Rot in sheep, may, for the sake of description, be classified as one and the same disease, and will only need a short description of each particular malady to be easily recognized.

**Thrush in horses' feet.**—Is a discharge of a very foul nature from the cleft of the frog, and is the part first affected, and when neglected soon spreads over the whole organ, the horn becoming detached; more frequently seen in the hind feet from constantly standing in the wet decomposing droppings and filth. Many men consider this a very simple complaint, but it will be found very difficult to cure, and is considered an unsoundness, and if neglected is sure to terminate in carker.

**Foul in the foot of Cattle.**—The peculiar form of the foot of the ox renders it especially liable to the lodgment of dirt and filth within the cleft of the hoof, and if suffered to remain forms a source of irritation and subsequent lameness. The well-cleansing of the foot will, in many















World's Columbian Exposition.

The following resolution, recommended by the Committee on Live Stock of the World's Columbian Commission, was unanimously adopted by said Commission, Sept. 5th, 1891. Resolved: That, in addition to the cash premiums offered by the Board of Directors of the World's Columbian Exposition in the Department of Live Stock, that medals be awarded by the World's Columbian Commission, of such character and in such numbers and in such divisions of the Live Stock Department, as may be hereafter agreed upon.

Rules and Information for Exhibitors of Live Stock.

The Live Stock Exhibit will begin August 24th, and close October 30th, 1893. The period devoted to the exhibition of animals for award in the different divisions of Live Stock, at the World's Columbian Exposition, will be as follows: A. Cattle—September 14th to September 27th. B. Horses, Jacks and Jennets—August 24th to September 6th. C and D. Sheep and Swine—October 2nd to October 14th. E. Dogs—June 20th to July 17th. F. Poultry, Pigeons and Pet Stock—October 18th to October 30th.

Exhibitors in Divisions "A," "B," "C" and "D" must accompany their applications with written evidence as to the pedigree of each animal offered for entry, as required hereinafter, to wit:—

CATTLE.

- I. As to Shorthorn—That they are registered in either the American Shorthorn Herd Book, the Dominion Shorthorn Herd Book of Canada, or Cotte's Herd Book of England. II. As to Hereford—That they are registered in either the American Hereford Record, or the English Herd Book of Hereford Cattle. III. As to Aberdeen-Angus—That they are registered in either the American Aberdeen-Angus Herd Book, or the Polled Herd Book of Aberdeen-Angus Cattle of Scotland. IV. As to Galloway—That they are registered in either the American Galloway Herd Book, or the Galloway Herd Book of Scotland. V. As to Devon—That they are registered in either the American Devon Record, the Davy's Devon Herd Book of England, or the Canada Devon Herd Book. VI. As to Red Polled—That they are registered in either the Red Polled Herd Book of Great Britain, or the Red Polled Herd Book published by the Red Polled Cattle Club of America (incorporated). VII. As to Polled Durham—That they are registered in the American Polled Durham Herd Book. VIII. As to Holstein-Friesian—That they are registered in either the Holstein-Friesian Herd Book of America, the Holstein-Friesian Herd Book of Canada, the American Branch of the North Holland Herd Book, the Netherland Herd Book, the Friesian Herd Book, or the North Holland Herd Book. IX. As to Guernsey—That they are registered in either the Herd Register of the American Guernsey Cattle Club, the General Herd Book of the Island of Guernsey, or the Herd Book of the Royal Agricultural Society. X. As to Dutch-Belted—That they are registered in the Herd Book of the Dutch-Belted Cattle Association of America. XI. As to Ayrshire—That they are registered in either the American Ayrshire Record, the Canadian Ayrshire Herd Record, the Dominion Ayrshire Cattle Herd Book, or the Ayrshire Herd Book of Great Britain. XII. As to Sussex—That they are registered in either the American Sussex Register, or the English Sussex Herd Book. XIII. As to Brown Swiss—That they are registered in the Herd Book of the Brown Swiss Cattle Association of America. XIV. As to Jersey—That they are registered in either the Herd Register of the American Jersey Cattle Club, or the Jersey Herd Book of the Isle of Jersey.

Section 4.

Cattle other than those mentioned above shall be eligible to entry under the following conditions:— The application, if from a foreign country, must bear the official approval of the Exposition Commissioner or Commission representing the country where the animal is owned, and must in each case show that the animal offered for entry is a representative of some recognized breed, giving a description, including name, age and sex, and stating that the exhibitor has owned the animal for a period of at least sixty days prior to the date of such application, and any further information that may be required by the Chief of the Department of Live Stock.

HORSES.

- I. As to Thoroughbred—That they are registered in either the American Stud Book, the General Stud Book of Great Britain, or the Stud Book Français de France. II. As to Standard bred—That they are registered in the American Trotting Register Association of America. III. As to Hackney—That they are registered in either the American Hackney Stud Book, the Stud Book of the American Hackney Horse Society, or the Stud Book for Hackney Horses of Great Britain. IV. As to Cleveland Bay—That they are registered in either the Cleveland Bay Stud Book of America, or the Cleveland Bay Stud Book of Great Britain. V. As to German Coach—That they are registered in the German, Hanoverian and Oldenburg Coach Horse Stud Book of America. VI. As to Clydesdale—That they are registered in either the American Clydesdale Stud Book, the Clydesdale Stud Book of Great Britain and Ireland, or the Clydesdale Stud Book of Canada. (Appendix excepted). VII. As to Percherons—That they are registered in either the Percheron Stud Book of America, or the Stud Book Percheron de France. VIII. As to Shire—That they are registered in either the American Shire Horse Stud Book, or the English Shire Horse Stud Book. IX. As to Suffolk Punch—That they are registered in either the American Stud Book of Suffolk Punch Horses, or the Suffolk Stud Book of England. X. As to Belgian—That they are registered in either the American Stud Book of Belgian Horses, or the Stud Book of Belgian Draft Horses of Belgium. XI. As to French Coach—That they are registered in the French Coach Horse Stud Book of America. XII. As to French Draft—That they are registered in either the National Register of French Draft Horses, or the General Stud Book of France. XIII. As to Saddle Horses—That they are registered in either the American Saddle Stallion Stud Book, or the National Saddle Horse Breeders' Register. XIV. As to Shetland Ponies—That they are under 46 inches in height, and if owned in the United States or Canada, that they are registered in the American Shetland Pony Club Stud Book, or if owned outside the United States and Canada, that they are registered in the Shetland Pony Stud Book of Great Britain. XV. As to Jacks and Jennets—That they are registered in either the American Jack Stock Stud Book, or the Stud Book of Jacks and Jennets, issued by the Agricultural Society of Norm and Deux Sevres, France, or the Stud Book of Jacks and Jennets of Spain.

Horses other than those mentioned above shall be eligible to entry under the following conditions:— The application, if from a foreign country, must bear the official approval of the Exposition Commissioner or Commission representing the country where the animal is owned, and must in each case show that the animal offered for entry is a representative of some recognized breed, giving a description, including name, age and sex, and stating that the exhibitor has owned the animal for a period of at least sixty days prior to the date of such application, and any further information that may be required by the Chief of the Department of Live Stock.

SHEEP.

- I. As to Shropshire—That they are registered in the flock book of the American Shropshire Registry Association, or the Shropshire Flock Book of Great Britain. II. As to Southdown—That they are registered in the American Southdown Record, or the flock book of the Southdown Breeders' Association of England. III. As to Oxford-down—That they are registered in the flock book of the American Oxford-down Sheep Association, or the Oxford-down Flock Book of Great Britain. IV. As to Hampshire—That they are registered in the Hampshire Down Flock Book of Great Britain. V. As to Cotswold—That they are registered in the American Cotswold Record. VI. As to Leicester—That they are registered in the flock book of the American Leicester Breeders' Association. VII. As to Lincoln—That they are registered in the flock book of the American Lincoln Breeders' Association. VIII. As to Cheviot—That they are registered in the flock book of the Cheviot Society of America. IX. As to Dorset Horn—That they are registered in the flock book of the Dorset Horn Society of America, or the Dorset Horn Flock Book of Great Britain. X. American Merinos can be entered under one only of the two following conditions: a. To be judged for weight and quality of fleece. b. To be judged for form and size of carcass and weight and quality of fleece. All American Merinos must be registered in one of the following named flock books: Vermont Merino Sheep Breeders' Association, Vermont Atwood Club Register, New York State American Merino Sheep Breeders' Association, Standard American Merino Register Association, Ohio Spanish Merino Sheep Breeders' Association, United States Merino Sheep Breeders' Registry Association, Michigan Merino Sheep Breeders' Association, National Merino Sheep Breeders' Association, Wisconsin Sheep Breeders' and Wool Growers' Association, Merino Sheep Register, Missouri Merino Sheep Breeders' Association. XI. As to Delaine Merinos—That they are registered in one of the following named flock books: National Delaine Merino Sheep Breeders' Association, Dickinson Merino Sheep Record Company, Improved Delaine Merino Sheep Breeders' Association, Black Top Spanish Merino Sheep Breeders' Association, Improved Black Top Merino Sheep Breeders' Association, National Improved Saxony Sheep Breeders' Association, Standard Delaine Merino Sheep Breeders' Association. XII. As to French Merinos—That they are registered in the American Rambouillet Record.

Section 8.

Sheep offered for admission under an entry must be accompanied by a sworn statement, giving date of shearing, which for sheep exhibited from the United States and Canada must not be later than April 1st, 1893. Sheep that have been uneventfully or stubble shorn, or that have been clipped so as to conceal defects, or whose fleeces have been artificially colored, singed or oiled, will not be admitted to the ground.

Section 9.

Unimproved Sheep.

Entries may be made of specimens of unimproved types of sheep, which in the opinion of the Chief of the Department of Live Stock are possessed of historic or other interest to visitors. Sheep entered in this class will not be allowed to compete for any premium offered, but may be viewed and referred to in the official report of the judges or jury of award.

Section 10.

Sheep other than those mentioned above shall be eligible to entry under the following conditions:— The application, if from a foreign country, must bear the official approval of the Exposition Commissioner or Commission representing the country where the animal is owned, and must in each case show that the animal offered for entry is a representative of some recognized breed or variety, giving a description, including name, age and sex, and stating that the exhibitor has owned the animal for a period of at least sixty days prior to the date of such application, and any further information that may be required by the Chief of the Department of Live Stock.

SWINE.

- I. As to Berkshire—That they are registered in the record of the American Berkshire Association. II. As to Poland-China—That they are registered in the record of either the American Poland-China Record Co., the Central Poland Swine Association, the Ohio Poland-China Record Co., the Standard Poland-China Record Co., or the North-western Poland-China Swine Association. III. As to Chester White—That they are registered in the record of either the National Chester White Association, or Todd's Improved Chester White Record Association. IV. As to Small Yorkshire—That they are registered in the record of the American Small Yorkshire Club. V. As to Duroc-Jersey—That they are registered in the record of the American Duroc-Jersey Swine Breeders' Association. VI. As to Essex—That they are registered in the record of the American Essex Association. VII. As to Cheshire—That they are registered in the record of the Cheshire Swine Breeders' Association. VIII. As to Victoria—That they are registered in the record of the Victoria Swine Breeders' Association.

Section 12.

Swine other than those above mentioned shall be eligible to entry under the following conditions:— The application, if from a foreign country, must bear the official approval of the Exposition Commissioner or Commission representing the country where the animal is owned, and must in each case show that the animal offered for entry is a representative of some recognized breed or variety, giving a description, including age, name and sex, and stating that the exhibitor has owned the animal for a period of at least sixty days prior to the date of such application, and any further information that may be required by the Chief of the Department of Live Stock.

DOGS.

- Exhibitors of Dogs owned in the United States or Canada must furnish with each application for entry a certificate signed by the Secretary of the American Kennel Club, showing that the dog has been registered in the American Kennel Club Stud Book, under one of the two following rules of said Club:— a. Where the sire and dam are already registered. b. Where dogs possess an authenticated pedigree extending back three generations. Such certificates must also contain the stud book number assigned to such dog.

Exhibitors of dogs owned outside of the United States and Canada must furnish satisfactory evidence that such dogs are recorded, or are eligible to record in some recognized foreign stud book, in which purity of breeding is the basis for registration. All applications for entry in this division will be considered by a committee of three, to be appointed by the Chief of the Department of Live Stock, to which committee all applications and evidence relative thereto will be referred. The report of this committee will be the basis upon which the Chief of the Department of Live Stock will determine the eligibility of such animal to entry. The word "dog" as used in these Rules includes both sexes. Special rules and regulations governing the exhibit in this division will be issued hereafter.

POULTRY.

All Poultry offered for admission under an entry from the United States will be examined by a committee of three, who shall return to the exhibitor any bird which, in their opinion, is inferior, sick, out of condition, or which will not score 85 points in its class, according to the "American Standard of Perfection." No one exhibitor of poultry from the United States and Canada will be allowed to enter more than four birds, i. e., one cock, one hen, etc., in any one class, and but one breeding pen in any one class. b. Poultry from foreign countries will be admitted under the rules governing the admission of fowls at competitive displays in said countries. c. Additional Rules and Regulations governing the Poultry exhibit, and the system of judging to be adopted, will be issued hereafter.

PIGEONS.

Prizes will be withheld where specimens are of an inferior quality. Specimens must be named with what the exhibitor believes to be their correct title; all known synonyms (provincial and otherwise) may be added. Birds entered in a wrong class will be excluded from competition. All specimens must be exhibited in their natural condition; quality, beauty of plumage, purity of race, and uniformity in markings, will be required in each instance. b. Entries shall consist of single birds of the following varieties: Pouters, Carriers, Short-faced Tumblers, Fantails, Jacobins, Turbits, Owls and Russian Trumpeters. All other varieties shall be entered in pairs, one male and one female constituting a pair. Exhibitors will not be allowed to enter more than two specimens, i. e., two cocks, two hens, etc., of any one color of each variety. c. All birds entered for competition must be the property of exhibitor. d. The right is reserved by the Chief of the Department of Live Stock to return to an exhibitor any bird offered for admission under an entry that in his judgment is inferior. e. Special rules, with the system of judging to be adopted in this Division, will be issued hereafter.

GENERAL REGULATIONS.

The Exposition being of an international character, it is desirable that every species, breed, variety, or family of animals, domesticated or otherwise, throughout the world be represented thereat. The Chief of the Department of Live Stock is therefore authorized to admit for exhibition, but not for competition or award, animals which in his opinion possess sufficient merit, interest or utility to entitle them to admission at an international exhibition.

Section 17.

The Chief of the Department of Live Stock is authorized to create classes in addition to those enumerated in the premium list, when in his judgment the interest of the Exposition will be advanced thereby. Animals forming such additional classes will have the right to compete for such premiums and medals as the Chief of the Department of Live Stock shall designate at the time the classes are formed.

Section 18.

Exhibitors must in each case file an application, showing that they have owned the animal offered for entry for a period of at least sixty days prior to the date of such application, giving the name, age and sex, and a description of the animal, and furnish a copy of the certificate issued by the Association in whose registry such animal is recorded, or in Divisions E and F, such evidence and information as required by Sections 13, 14 and 15 of these Rules.

Section 19.

The age of animals must be calculated to the opening day designated for the exhibition of the division in which they belong.

Section 20.

Applications for entries in all divisions, except Division E, must be filed with the Chief of the Department of Live Stock on or before June 15th, 1893. Applications for entry in Division E will close May 20th, 1893.

Section 21.

Should any exhibitor wilfully misrepresent any fact required, or should he attempt to perpetrate a fraud upon the World's Columbian Exposition, in connection with an animal offered for admission to the grounds of the World's Columbian Exposition, under an entry, is not a typical representative of its kind, to exclude the same from the grounds of the World's Columbian Exposition.

Section 22.

The World's Columbian Exposition being open to the world, it is important that the best animals of the kind only be exhibited thereat. For this reason the Chief of the Department of Live Stock has authority, if in his judgment any animal offered for admission to the grounds of the World's Columbian Exposition, under an entry, is not a typical representative of its kind, to exclude the same from the grounds of the World's Columbian Exposition.

Section 23.

The World's Columbian Exposition will provide accommodations for the exhibition of Live Stock. All stalls will be regularly numbered; corresponding numbers on labels of uniform character will be furnished exhibitors, and no animal will be allowed to pass from its stall without having its proper number attached.

Section 24.

The Chief of the Department of Live Stock is authorized to order the removal of vicious or fractious animals from the grounds.

Section 25.

The Director-General shall appoint a veterinary surgeon and such assistants as may be necessary; such veterinary surgeon shall cause animals offered for entry to be examined before their admission to the grounds, to guard against infectious, or contagious diseases, and shall make a daily inspection of the grounds and stables occupied by the Live Stock exhibit, and report to the Chief of the Department of Live Stock the condition in which the stalls and grounds adjacent thereto are kept. In case of the sickness of any animal, it shall be removed by order of the Chief of the Department of Live Stock to a separate enclosure, and the exhibitor may either direct the treatment of such animal himself, or employ the veterinary surgeon, appointed for the Department of Live Stock, for whose services and other necessary expenses incurred, a reasonable charge will be made by the World's Columbian Exposition.







## Family Circle.

## AN HONEST SOUL.

BY MARY E. WILKINS.

"Thar's Mis' Bliss's pieces in the brown caliker bag, an' thar's Mis' Bennet's pieces in the bed-tickin' bag," said she, surveying complacently the two bags leaning against her kitchen wall. "I'll get a dollar for both of them quilts, and thar'll be two dollars. I've got a dollar an' sixty-three cents on hand now, an' thar's plenty of meal an' merlasses, an' some salt fish an' pertaters in the house. I'll get along middlin' well, I reckon. Thar ain't no call fer me to worry. I'll red up the house a leetle now, an' then I'll begin on Mis' Bliss's pieces."

The house was an infinitesimal affair, containing only two rooms besides the tiny lean-to which served as wood-shed. It stood far enough back from the road for a pretentious mansion, and there was one curious feature about it—not a door nor window was there in front, only a blank, unbroken wall. Strangers passing by used to stare wonderingly at it sometimes, but it was explained easily enough. Old Simeon Patch, years ago, when the longing for a home of his own had grown strong in his heart, and he had only a few hundred dollars saved from his hard earnings to invest in one, had wisely done the best he could with what he had.

Not much remained to spend on the house after the spacious lot was paid for, so he resolved to build as much house as he could with his money, and complete it when better days should come.

This tiny edifice was in reality simply the L of a goodly two-story house which had existed only in the fond and faithful fancies of Simeon Patch and his wife. That blank front wall was designed to be joined to the projected main building; so, of course, there was no need of doors or windows. Simeon Patch came of a hard-working, honest race, whose pride it had been to keep out of debt, and he was a true child of his ancestors. Not a dollar would he spend that was not in his hand; a mortgaged house was his horror. So he paid cash for every blade of grass on his lot of land, and every nail in his bit of a house, and settled down patiently in it until he should grub together enough more to buy a few additional boards and shingles, and pay the money down.

That time never came; he died in the course of a few years, after a lingering illness, and only had enough saved to pay his doctor's bill and funeral expenses, and leave his wife and daughter entirely without debt, in their little fragment of a house on the big, sorry lot of land.

There they had lived, mother and daughter, earning and saving in various little, petty ways, keeping their heads sturdily above water, and holding the dreaded mortgage off the house for many years. Then the mother died and the daughter, Martha Patch, took up the little homely struggle alone. She was over seventy now—a small, slender old woman, as straight as a rail, with sharp, black eyes, and a quick toss of her head when she spoke. She did odd house-wifely jobs for the neighbors, wove rag carpets, pieced bed quilts, braided rugs, etc., and contrived to supply all her simple wants.

This evening, after she had finished putting her house to rights, she fell to investigating the contents of the bags which two of the neighbors had brought in the night before, with orders for quilts, much to her delight.

"Mis' Bliss has got proper handsome pieces," said she—"proper handsome; they'll make a good-lookin' quilt. Mis' Bennet's is good too, but they ain't quite ecal to Mis' Bliss's. I reckon some of 'em's old."

She began spreading out the largest, prettiest pieces on her white-scoured table. "Thar," said she, gazing at one admiringly, "that jest takes my eye; them leetle pink roses is pretty, an' no mistake. I reckon that's French caliker. Thar's some big pieces too. Lor', what bag did I take 'em out on! It must hev been Mis' Bliss's. I mustn't git 'em mixed."

She cut out some squares, and sat down by the window in a low rocking-chair to sew. This window did not have a very pleasant outlook. The house was situated so far back from the road that it commanded only a rear view of the adjoining one. It was a great cross to Martha Patch. She was one of those women who like to see everything that is going on outside, and who often have excuse enough in the fact that so little is going on with them.

"It's a great divar-sion," she used to say, in her snapping way, which was more nervous than ill-natured, bobbing her head violently at the same time—"a very great divar-sion to see Mr. Peter's cows goin' in an' out of the barn day arter day; an' thar's about all I do see; never get a sight of the folks goin' to meetin' nor nothin'."

The lack of a front window was a continual source of grief to her.

"When the minister's prayin' for the widders an' orphans he'd better make mention of one more," said she, once, "an' thar's women without front winders."

She and her mother had planned to save money enough to have one some day, but they had never been able to bring it about. A window commanding a view of the street and the passers-by would have been a great source of comfort to the poor old woman, sitting and sewing as she did day in day out. As it was, she seized eagerly upon the few objects of interest which did come within her vision, and made much of them. Thar were some children who, on their way from school, could make a short cut through her yard and reach

home quicker. She watched for them every day, and if they did not appear quite as soon as usual she would grow uneasy, and eye the clock, and mutter to herself, "I wonder where them Mosey children can be?" When they came she watched their progress with sharp attention, and thought them over for an hour afterwards. Not a bird which passed her window escaped her notice. This innocent old gossip fed her mind upon their small domestic affairs in lieu of larger ones. Today she often paused between her stitches to gaze absorbedly at a yellow bird vibrating nervously round the branches of a young tree opposite. It was early spring, and the branches were all of a light green foam.

"Thar's the same yeller bird I saw yesterday, I do b'lieve," said she. "I reckon he's goin' to build a nest in that ellum."

Lately she had been watching the progress of the grass gradually springing up all over the yard. One spot where it grew much greener than elsewhere her mind dwelt upon curiously.

"I can't make out," said she to a neighbor, "whether that 'ere spot is greener than the rest because the sun shines brightly thar, or because somethin's buried thar."

She toiled steadily on the patchwork quilts. At the end of a fortnight they were nearly completed. She hurried on the last one morning, thinking she would carry them both to their owners that afternoon and get her pay. She did not stop for any dinner.

Spreading them out for one last look before rolling them up in bundles, she caught her breath hastily.

"What hev I done?" said she. "Massy sakes! I hev'n't gone an' put Mis' Bliss's caliker with the leetle pink roses on't in Mis' Bennet's quilt?"

The poor old soul stood staring at the quilts in pitiful dismay. "A hull fortin' work," she muttered. "What shall I do? Them pink roses is the prettiest caliker in the hull lot. Mis' Bliss will be mad if they air in Mis' Bennet's quilt. She won't say nothin', an' she'll pay me, but she'll feel it inside, an' it won't be doin' the squar' thing by her. No! I'll go an' airn money I'll airn it."

Martha Patch gave her head a jerk. The spirit which animated her father when he went to house-keeping in a piece of a house without any front window blazed up within her. She made herself a cup of tea, then sat deliberately down by the window to rip the quilts to pieces. It had to be done pretty thoroughly on account of her admiration for the pink calico, and the quantity of it. It figured in nearly every square. "I wish I hev'd a front winder to set to while I'm doin' on't," said she; but she patiently plied her scissors till dusk, only stopping for a short survey of the Mosey children. After days of steady work the pieces were put together again, this time the pink-rose calico in Mrs. Bliss's quilt. Martha Patch rolled the quilts up with a sigh of relief and a sense of virtuous triumph.

"I'll sort over the pieces that's left in the bags," said she, "then I'll take 'em over an' git my pay. I'm gittin' pretty short of vittles."

She began pulling the pieces out of the bed-tickin' bag, laying them on her lap and smoothing them out, preparatory to doing them up in a neat, tight roll to take home; she was very methodical about everything she did. Suddenly she grew pale, and stared wildly at a tussle of calico which she had just fished out of the bag.

"Massy sakes!" she cried; "it ain't, is it?" She clutched Mrs. Bliss's quilt from the table and layed the bit of calico beside the pink-rose squares.

"It's jest the same thing," she groaned, "an' it came out on Mis' Bennet's bag. Dear me suz! I dearn me suz!"

She dropped hopelessly into her chair by the window, still holding the quilt and the tell-tale scrap of calico, and gazed out in a bewildered sort of way. Her poor old eyes looked dim and weak with tears.

"Thar's the Mosey children comin'," she said; "happy little gals, laughin' an' hollerin', goin' home to their mother to git a good dinner. Me a-settin' here's a lesson they ain't learned in their books yet; hope to goodness they never will; hope they won't ever hev to piece quilts fur a livin', without any front winder to set to. Thar's a dandelion blown out on that green spot. Reckon thar is somethin' buried thar. Lordy massy! hev I got to rip them two quilts to pieces agin an' sew 'em over?"

Finally she resolved to carry a bit of the pink-rose calico over to Mrs. Bennet's and find out, without betraying the dilemma she was in, if it were really hers.

Her poor old knees fairly shook under her when she entered Mrs. Bennet's sitting room.

"Why, yes, Martha, it's mine," said Mrs. Bennet, in response to her agitated question. "Hatti had a dress like it, don't you remember? There was a lot of new pieces left, and I thought they would work into a quilt nice. But, for pity's sake, Martha, what is the matter? You look just as white as a sheet. You ain't sick, are you?"

"No," said Martha, with a feeble toss of her head, to keep up the deception; "I ain't sick, only kinder all gone with the warm weather. I reckon I'll hev to fix me up some thoroughwort tea. Thoroughwort's a great strengthener."

"I would," said Mrs. Bennet sympathizingly; "and don't you work too hard on that quilt; I ain't in a bit of a hurry for it. I shan't want it before next winter anyway. I only thought I'd like to have in pieced and ready."

"I reckon I can't get it done afore another fortnit," said Martha, trembling.

"I don't care if you don't get it done for the next three months. Don't go yet, Martha; you ain't rested a minute, and it's a pretty long walk. Don't you want a bite of something before you go? Have

a piece of cake? You look real faint."

"No, thank'y," said Martha, and departed in spite of all friendly entreaties to tarry. Mrs. Bennet watched her moving slowly down the road, still holding the little pink calico rag in her brown, withered fingers.

"Martha Patch is fallin'; she ain't near as straight as she was," remarked Mrs. Bennet.

"The little wiry bent over to day."

"The little wiry springiness was, indeed, gone from her gait as she crept slowly along that sweet country road, and there was a helpless droop in her thin, narrow shoulders. It was a beautiful spring day; the fruit trees were all in blossom. There were more orchards than houses on the way, and more blooming trees to pass than people.

Martha looked up at the white branches as she passed under them. "I kin smell the apple-blows," said she, "but somehow the goodness is all gone out of 'em. I'd jest as soon smell cabbage. Oh, dear me suz, kin I ever do them quilts over agin?"

When she got home, however, she rallied a little. There was a nervous force about this old woman which was not easily overcome even by an accumulation of misfortunes. She might bend a good deal, but she was almost sure to spring back again. She took off her hood and shawl, and straightened herself up. "Thar's no use in puttin' it off; it's got to be done. I'll hev them quilts right if it kills me!"

She tied on a purple calico apron and sat down at the window again, with a quilt and the scissors. Out came the pink roses. There she sat through the long afternoon, cutting the stitches which she had so laboriously put in—a little defiant old figure, its head, with a flat black lace cap on it, bobbing up and down in time with its hands. There were some purple bows on the cap, and they fluttered; quite a little wind blew in at the window.

The eight-day clock on the mantle ticked peacefully. It was a queer old timepiece which had belonged to her grandmother Patch. A painting of a quaint female, with puffed hair and a bunch of roses, adorned the front of it, under the dial-plate. It was flanked on either side by tall green vases.

There was a dull colored rag carpet of Martha's own manufacture on the floor of the room. Some wooden chairs stood around stiffly; an old yellow map of Massachusetts and a portrait of George Washington hung on the walls. There was not a speck of dust anywhere, nor any disorder. Neatness was one of the comforts of Martha's life. Putting and keeping things in order was one of the interests which enlivened her dulness and made the world attractive to her.

The poor soul sat at the window, bending over the quilt, until dusk, and she sat there, bending over the quilt until dusk, many a day after.

It is a hard question to decide whether there were any real merit in such finely strained honesty, or whether it were merely a case of morbid conscientiousness. Perhaps the old woman, inheriting very likely her father's scruples, had had them so intensified by age and childishness that they had become a little off the bias of reason.

Be that as it may, she thought it was the right course for her to make the quilts over, and, thinking so, it was all that she could do. She could never have been satisfied otherwise. It took her a considerable while longer to finish the quilts again, and this time she began to suffer from other causes than mere fatigue. Her stock of provisions commenced to run low, and her money was gone. At last she had nothing but a few potatoes in the house to eat.

She contrived to dig some dandelion greens once or twice; these with the potatoes were all her diet. There was really no necessity for such a state of things; she was surrounded by kindly, well-to-do people, who would have gone without themselves rather than let her suffer. But she had always been so conscientious about her needs, and felt great pride about accepting anything for which she did not pay. But she struggled along until the quilts were done, and no one knew. She set the last stitch quite late one evening; then she spread the quilts out and surveyed them. "Thar they air now, all right," said she; "the pink roses is in Mis' Bennet's, an' I ain't cheated nobody out on their caliker, an' I've airned my money. I'll take 'em hum in the mornin', an' then I'll buy somethin' to eat. I begin to feel a dreadful sinkin' at my stummuck."

She locked up the house carefully—she always felt a great responsibility when she had people's work on hand—and went to bed.

Next morning she woke up so faint and dizzy that she hardly knew herself. She crawled out into the kitchen, and sank down on the floor. She could not move another step.

"Lor' sakes!" she moaned, "I reckon I'm 'bout done to!"

The quilts lay near her on the table; she stared up at them with feeble complacency. "Ef I'm goin' to die, I'm glad I got them quilts done right fast. Massy, how sinkin' I do feel! I wish I had a cup of tea."

There she lay, and the beautiful spring morning wore on. The sun shone in at the window, and moved nearer and nearer, until finally she lay in a sunbeam, a poor, shrivell'd little old woman, whose resolute spirit had nearly been her death, in her scant night gown and ruffled cap, a little shawl falling from her shoulders. She did not feel ill, only absolutely too weak and helpless to move. Her mind was just as active as ever, and her black eyes peered sharply out of her pinched face. She kept making efforts to rise, but she could not stir.

"Lor' sakes!" she snapped out at length, "how long hev I got to lay here? I'm mad!"

She saw some dust on the black paint of a chair which stood in the sun, and she eyed that distressfully.

"Jest look at that dust on the runs of that cheer!" she muttered. "What if anybody come in; I wonder if I can't reach it!"



The chair was near her, and she managed to stretch out her limp old hand and rub the dust off the rounds. Then she let it sink down, panting. "I wonder if I ain't goin' to die," she gasped. "I wonder if I'm prepared. I never took nothin' that shouldn't belong to me that I knows on. Oh, dear me suz, I wish somebody would come!"

When her strained ears did catch the sound of footsteps outside, a sudden resolve sprang up in her heart. "I won't let on to nobody how I've made them quilts over, an' how I hev'n't had enough to eat—I won't."

When the door was tried she called out feebly, "Who is thar?"

The voice of Mrs. Peters, her next-door neighbor, came back in response: "It's me. What's the matter, Marthy?"

"I'm kinder used up; don't know how you'll git in; can't git to the door to unlock it to save my life."

"Can't I get in at the window?"

"Mebbe you kin."

Mrs. Peters was a long-limbed, spare woman, and she got in through the window with considerable ease, it being quite low from the ground. She turned pale when she saw Marthy lying on the floor. "Why, Marthy, what is the matter? How long have you been laying there?"

"Ever since I got up. I was kinder dizzy, an' hed a dreadful sickin' feelin'. It ain't much, I reckon. Ef I could hev a cup of tea it would set me right up. Thar's a spoonful left in the pantry. Ef you jest put a few kindlin's in the stove, Mis' Peters, an' set in the kettle an' make me a cup, I could git up, I know. I've got to go an' kerry them quilts hum to Mis' Bliss an' Mis' Bennet."

"I don't believe but what you've got all tired out over the quilts. You've been working too hard."

"No, I ain't. Mis' Peters, it's nothin' but play piecin' quilts. All I mind is not hev'in' a front winder to set to while I'm doin' on't."

Mrs. Peters was a quiet, sensible woman of few words; she insisted upon carrying Martha into the bedroom and putting her comfortably to bed. It was easily done; she was muscular, and the old woman a very light weight. Then she went into the pantry. She was beginning to suspect the state of affairs, and her suspicions were strengthened when she saw the bare shelves. She started the fire, put on the tea-kettle, and then slipped across the yard to her own house for further reinforcements.

Pretty soon Marthy was drinking her cup of tea and eating her toast and a dipped egg. She had taken the food with some reluctance, half-starved as she was. Finally she gave in—the sight of it was too much for her. "Well, I will berry it. Mis' Peters," said she; "an' I'll pay you jest as soon as I kin git up."

After she had eaten she felt stronger. Mrs. Peters had hard work to keep her quiet until afternoon; then she would get up and carry the quilts home. The two ladies were profuse in praises. Marthy, proud and smiling. Mrs. Bennet noticed the pink roses at once. "How pretty that calico did work in," she remarked.

"Yes," assented Marthy, between an inclination to chuckle and to cry.

"Ef I ain't thankful I did them quilts over," thought she, creeping slowly homeward, her hand earned two dollars knotted into a corner of her handkerchief for security.

About sunset Mrs. Peters came in again. "Marthy," she said, after a while, "Sam says he's out of work just now, and he'll cut through a front window for you. He's got some old sash and glass that's been laying round in the barn ever since I can remember. It'll be a real-charity for you to take it off his hands, and he'll like to do it. Sam's as uneasy as a fish out of water when he hasn't got any work."

Martha eyed her suspiciously. "Thanky; but I don't want nothin' done that I can't pay for," said she, with a stiff toss of her head.

"It would be pay enough, just lettin' Sam do it, Marthy; but, if you really feel set about it, I've got some sheets that need turnin'. You can do them some time this summer, and that will pay us for all it's worth."

The black eyes looked up at her sharply. "Air you sure?"

"Yes, it's tully as much as it's worth," said Mrs. Peters. "I'm most afraid it's more. There's four sheets, and putting in a window is nothin' more than putting in a patch—the old stuff ain't worth anything."

When Marthy fully realized that she was going to have a front window, and that her pride might suffer it to be given to her and yet receive no insult, she was delighted as a child.

"Lor' sakes!" said she, "jest to think that I shall have a front winder to set to! I wish mother could ha' lived to see it. Mebbe you kinder wonder at it, Mis' Peters—you've allers had front winders; but you haven't any idea what a great thing it seems to me. It makes me feel younger. Thar's the Mosely children; they're 'bout all I've ever seen pass this winder. Mis' Peters. Jest see that green spot out thar; it's been greener than the rest of the yard all the sprinz, an' now thar's lots of dandelions blowed out on it, an' some clover. I b'lieve the sun shines n'r on it, somehow. Law me, to think I'm going hev a front winder!"

"Sarah was in this afternoon," said Mrs. Peters, further (Sarah was her married daughter), "and she says she wants some braided rugs right away. She'll send the rags over by Willie to-morrow."

"You don't say so? What'll be glad to do it; an' thar's one thing 'bout it, Mis' Peters—mebbe you'll think it queer for me to say so, but I'm kinder thankful it's rugs she wants. I'm kinder sick of bed-quilts somehow."

### Minnie May's Dep't.

MY DEAR NIECES:—

Surely our brief summer is ended, as the bright colored foliage and all dying nature will testify; but what a very bright and pleasant memory of the past summer we retain! Truly, a more bountiful harvest never blessed this fair land of ours than the past season. The copious rains and cool weather rendered the growth of fruit, flowers, vegetables and grain almost abnormal. God be thanked for it, for this abundance means much to all—hearts lightened of heavy loads of care, and all bright and smiling again, for fair prices have been realized for all sold, and plenty remains for home and family use.

The pressure of hard times, my dear nieces, falls heaviest upon us. Ours is the hard task of sympathizing with those who complain, without the power to help only to a limited extent, and more economy where the most rigid was practiced before, making one dollar do the duty of two. But now we can rest with thankful, happy hearts, feeling sure of plenty and prosperity. Now, for our cosy firesides these chilly evenings, with a blazing fire of logs and a clean-swept hearth, making all bright within, we can bid defiance to wind and weather without.

In my former letters, my dear nieces, I have often alluded to the necessity of friendly intercourse between neighbors, of which there is not half enough amongst you; and with you, my dear girls, it remains to make your homes places of meeting for friends and neighbors in the evening. Your hospitality need not be extravagant, but it will do much to cultivate that spirit of true friendliness of which an ill-natured law-suit too often takes the place. In cities there is much more kindly interchange between friends and neighbors, therefore, fewer quarrels. Apart from the fostering of friendly feelings between man and man, it relieves the monotony of life, and monotony is too much a farmer's lot. When there is something to look forward to at home the young people will not go out to the corner store, nor seek doubtful company, and it will save you many a worry where your son is spending his evening. Try and make evenings at home attractive, and something more than a place to eat and sleep in. In your daily rounds a cake can be made and baked while your bread is baking; or, if you have nothing but a slice of your own sweet bread and butter to offer with a glass of milk, offer it, or a bright, sweet, juicy apple. A steaming hot cup of coffee, with such cream as a farmer's wife only can command, is luxury to a tired man, or a slice of bread and cheese. Do not keep all your entertaining and good things for "company", that is a very short, sudden and altogether unsatisfactory way of entertaining. Let your kindness be shown in just such ways as I have described, and both you and your household will reap a substantial benefit from it. Show by your manner there is always a chair and room at your fireside for your friends, and they will soon learn to appreciate it.

MINNIE MAY.

Nancy (to her cousin from the city)—Can you climb trees? Maude (first visit to the country, in pained surprise)—Haven't you an elevator?

Teacher—What is a synonym? Bright boy—It's a word you can use in place of another one when you don't know how to spell the other one.

### The Cross Mother.

At no time in her busy days is an intelligent mother so apt to fold the arms and close the eyes of maternal justice as when she is cross—simply and undoubtedly cross. The crossness is chiefly caused by fatigue—weariness of mind and body, and sometimes of soul. With tired nerves and weary body, she cannot endure the common demands made upon her, and ill-temper follows. She shows bitter feelings and repels loving attention with her irritable hasty words. Broadly speaking, no mother has any right to get so tired. She cannot afford it. It takes too much out of her life, and too much out of her children's life. Such a condition can more frequently be prevented than is generally believed.

The remedy lies near at hand. Let a mother find out what makes her cross, and then let her avoid the cause if possible. If social pleasures weary her, let them be decidedly lessened. If there is too much sewing, too much cooking, or too many household cares, lessen them. If economical efforts cause the severe strain, stop economizing at such a cost.

That is the worst of wastes. Let the first economy be of that precious commodity, a mother's strength. Even the extent of one's religious and philanthropic work should be carefully examined, and if the trouble lies there, calmly and wisely dismiss some or all of it from the list of duties, for "what doth it profit a man if he gain the whole world and lose his own soul?" It is surprising how easily seeming interests or needs can be spared without injury to the home life whenever the thoughtful woman seeks to find them, and surely one of the worst of household influences is crossness.

### For the Boys.

Would my boys know how some of the nice things grow that make a plum cake taste so nice. I shall tell them where they grow, and how they are prepared for market. Sugar cane is grown in the Southern States, East Indies and Brazil. The canes are put through a crusher, the syrup is boiled and cooled, much like they make maple sugar at home. Tea is the leaf of a plant grown in Japan, China, and parts of Asia, the tender leaves are picked two or three times during the spring-time. Those of the first gathering are the finest flavored, and are what they call imperial tea. Coffee is the kernel of a fruit resembling a cherry. It grows in Arabia, Ceylon and Martinique. The berry is found in the middle of the fruit; when fresh is a yellowish-grey or a pale green. The fruit is spread on mats and dried in the sun. It is then bruised with rollers to separate the berry from the fruit; it is then dried a second time in the sun. Cloves are the dried blossoms of a tree which grows in the Malacca Islands. The tree resembles the olive in the leaves and bark; white flowers grow from the ends of the branches; they are of a pale green at first, then they become red, then a dark brown, such as we see them. Cinnamon is the second bark of a tree which grows in Ceylon. Nutmegs and Mace grow on a tree in the Malacca Islands. The nutmeg is covered with three rinds; the first falls off leaving the thin covering, which is called mace; this is carefully peeled off and dried in the sun. Pepper is the fruit of a shrub, and the flower is white; when it falls off the little pepper-corns grow. Currants grow in the Island of Zante, and are gathered and spread along the sands of the sea shore to dry. So you see, boys, how many countries contribute to our necessities and comfort, and while we enjoy them at our ease let us not forget the dangers and hardships by land and sea so many men go through to provide them for us.

AUNT GRACE.



**The Canary-Finch.**

Small as thou art thou gem like bird :  
 Yet thou hast made thy nest on high,  
 And there thy warbling voice is heard,  
 Singing thy children's lullaby.  
 Lovely bird with thy golden crown,  
 A kind and tender nurse art thou.  
 Making thy nest of moss and down,  
 And hanging it on the bending bough.  
 There, rocked by the waves of the zephyr's wings  
 Amid the green branches it lightly swines,  
 And a few clustering leaves of the forest tree,  
 Will serve to shelter thy cradle and thee,  
 Concealing thee safely from every eye,  
 Until danger and fear have passed thee by.  
 —Sir Walter Scott.

These pretty little pets are favorite song birds, and are capable of being trained. A small piece of the seeds of a fig will tempt the canary-finch from his cage, so fond is he of it, and he will even venture his head inside his mistress' mouth after the same sweet morsel. Their song is a sweet warble, but they have been trained to imitate many other song birds by artificial whistles. These canary-finches are quite hardy and will feed upon seeds, lettuce and sugar, or cake, and endure a draught or chill better than many sorts of bird pets. The training of birds requires no end of patience and self-control. To sit still by the hour waiting for the bird to become accustomed to your presence, to repeat the lesson over and over, to move with the utmost gentleness so not to frighten it—these and many other capabilities one must have who would be ambitious to bring that training to any state of perfection. Yet these little creatures have been taught to fire a gun, drop dead at the report, draw a little carriage containing one of their number, wheel a small wheelbarrow containing the supposed dead bird, and many other strange things, showing how much time and patience it requires.

**Rye Bread.**

Rye bread is simply made. That which is generally sold is made in the same way as an ordinary household loaf, but composed of equal quantities of rye flour and wheat flour. It is said to improve the mixing if about one-eighth of its bulk of Indian corn flour is added. When this addition is made, every pound of Indian corn flour should be scalded first by having a pint of boiling water thrown upon it, and stirring it well, and when it has cooled down to a milk warm temperature, it should be added to the rye and wheat flours, and the mixing process proceeded with as usual.

Diamonds have been found in British Guiana, where a gold-mine owner recently found 938 stones. An expert in London declared 633 of the purest water.

**Home Remedies.**

To cure chapped hands, melt one-fourth of a pound of mutton tallow; add one half-ounce each of gum camphor and glycerine; let it boil two minutes, and put away to cool. Rub on the hands at night and wear old kid gloves.

For bites and stings, apply spirits of hartshorn, or make a poultice of fresh wood ashes moistened with water.

To cure croup, mix one teaspoonful of powdered alum with two teaspoonfuls of sugar, and give in teaspoonful-doses until cured.

**Our Library Table.**

"The Dominion Illustrated" is too well known to all Canadians as one of the foremost of our representative illustrated papers. It is published in Montreal.

"The Canadian Health Journal" is all that it claims to be—a monthly review and a record of sanitary science, and this number is particularly instructive. Published in Ottawa. Price, \$1.00.

"The Modern Priscilla," published in Lynn, Mass., for the small sum of 50 cents a year, is one of the most useful of monthly magazines for households.

"Housekeepers' Weekly" is always up to the standard of excellence, and its pages are well selected as regards reading matter—in fact all or anything you wish to know about can be found in its columns; \$1.00 per annum.

"Good Housekeeping," \$2.40 per annum, Springfield, Mass., is wholly a housekeeper's friend. All that can interest a housekeeper will be found, from poetry to fiction, recipes, fashions, entertainments, in fact, hints about anything worth knowing.

"The Ladies' Home Journal" is particularly suited to the wants of a household in the diversity of information to be found in its pages. Price, \$1.00 a year. Philadelphia.

"L'Art de la Mode" contains, as usual, all that is new and beautiful in fashions. Dresses, mantles and bonnets, are beautifully illustrated by colored plates. Published by W. J. Morse; \$3.50 per annum. New York.

"The Household," ever welcome with its well-filled pages of useful reading, fashions and fancy work, house furnishing, and all the housekeeper most requires. New York; \$1.00 a year.

"The Housewife," published in New York for 50 cents a year, is, as usual, full of all that is sure to

be most suited to the wants of its numerous readers. Fiction of a good sort, practical dress hints, flowers, poetry and kitchen hints, all go to make one of the best of our household indispensables.

"The Housekeeper," published in Minneapolis, for the small sum of \$1.00 per year, is quite up to the mark—indeed the wonder grows how such a monthly can be printed for such a small sum.

"The May Flower," a dainty little monthly, published in New York at 50 cents, gives all the necessary information to lovers of flowers—how to grow their favorites, and no amateur florist can get along without it.



THE CANARY FINCH.

Alcohol is a good remedy for burns if applied at once, but equal parts of carbolic acid and oil is better. This should be kept in every kitchen.

To cure cold-sores, touch them once with carbolic acid, then apply alum occasionally.

To remove warts, wet them with oil of cinnamon three times a day.

Turpentine will take the soreness out of corns or bunions. Be careful about using too much.

Beef suet, boiled in fresh milk, is very good for a cold; take a small quantity at a time, but often.—[The Housekeeper.



**Fashion Notes.**

Binding skirts with braid is gradually being abandoned. It is faced on flatly, its width resting on the wrong side of the skirt even, with the edge, affording much protection to delicate silk or wool goods. Skirts continue to be inconveniently long at the back, but with the approach of wet weather will again be worn a sensible length.

English top coats have double-stitched raw edges when the fine textured clothes are used. The fronts are underfaced and the sleeves lined with silk of some dainty shade. The fashionable top-garments for walking and shopping are trim, of elegant shape, and plainly finished, while coats for indoor wear and visiting are enriched with handsome garniture, elaborate vests and medici collar.

Long cloaks and short coats have yokes, raised shoulders and high collars, and will be fashionably developed in flexible woollens with pretty linings, and a reserved amount of feather trimming.

Circular cloaks with pretty hoods are once more in vogue.

A decided reversal of former modes is displayed in silk skirts decorated with short kiltings of woollen goods, and worn with woollen basques, showing silk sleeves finished with edgings or pleatings of woollen material. Contrasting sleeves are once more in high favor.

It is said that China silk will be used for house gowns during the winter.

Fashionable veils are made with black dotted lace, or white dotted with black.

Shoes are still made with low, broad heels, wide soles and broad, square toes.

It is a good plan when remodeling a costume, the bodice of which is unfit for further wear, to use the back widths or side gores of the shirt for a new basque, and replace the part thus used with goods of a contrasting color, which should also be chosen for the sleeves and vest of the basque.

Beautiful as are the autumnal colors, black will, as usual, be highly favored. Very elegant costumes will be made of black silk, satin and velvet, both in embroidered and plain varieties.

**Valuable Hints for Housekeepers.**

(From the Housekeeper's Weekly.)

To get rid of flies, expose in a plate a strong decoction of quassia chips and brown sugar.

A bowl of quicklime kept in a cupboard will quickly absorb the moisture, if there be any.

To remove rust from knives, cover the blades with sweet oil for a day or two, and then rub them with a lump of fresh lime.

Rub cold tallow from a candle on to an ink spot; allow it to remain twenty-four hours, and wash as usual. Properly done, this method is sure.

To remove stains on marble, take ox gall, a wineglassful of turpentine, and mix into a paste with pipe clay; spread this paste on the stained marble, and let it remain several days.

Housewives will hail a recent invention in furnishing which is intended to take the place of cumbersome window-screens. This invention is a window-screen which rolls up and down like an ordinary window shade, and it is said, offers complete protection from flies and mosquitoes, as it screens the whole window.

**Recipes.****BOHEMIAN PUFFS.**

Stir into a pint of boiling water, in a frying-pan, half a pound of butter; when melted stir in one-quarter pound of flour, and continue stirring until all the lumps have cooked smooth; take from the fire and add five well-beaten eggs. Divide this mixture into lumps about the size of an egg; glaze over with a beaten egg, and bake half an hour in a quick oven. When done open and insert half a well-sugared peach, and ice over with boiled icing.

**NICE CURRANT LOAF.**

At night dissolve one piece of yeast in one pint of warm milk, and mix enough of flour to make a thick batter; cover and keep in a warm place. In the morning stir into this sponge half a pint of warm milk, half a pound of melted butter, four well-beaten eggs, spices to taste, and half a pound of sugar; mix enough of flour in to make a very soft dough; let rise, and when light put into cake tins (buttered); let rise again until very light, and bake in a slow oven. Do not fill the tins more than half full, and turn out of the tins when baked, to cool. All this should be done with a spoon, do not touch it with the hands.

**BAKED POTATOES.**

Wash one dozen potatoes of an equal size, dry on a clean cloth and rub the skins with dripping. Bake in a hot oven one hour.

**STEWED CELERY.**

Cut one head of celery into thin slices; wash all the sand from it with a brush; put into a sauce-pan with enough water to cover it; stew until tender; then take out a little of the water to cool, and rub half a tablespoon of flour in it; add to the celery when it boils up again; add two ounces of butter and a dust of red pepper.

**TOMATOES STEWED.**

Peel ripe tomatoes by pouring boiling water on them; cut in halves, and add two onions, cut in small pieces; add these to the tomatoes with a teaspoon of salt; half a one of pepper; simmer until the onion is quite soft.

**A HALLOW'EEN CAKE.**

Rub one pound of butter into one of sugar until it creams; beat into this the well-beaten yolks of six eggs, then the whites beaten to a stiff froth; stir in one pound and a quarter of flour, into which one pound of raisins and one of currants are mixed; mix well, and, lastly, add a teaspoonful of ground cinnamon, and one of mace, and two teaspoonfuls of baking powder; pour it into a well-buttered tin, and bake in a slow oven until done.

**HALLOW'EEN PUDDING.**

Cream half a pound of butter with the same quantity of sugar; add four well-beaten eggs, and half a pound of bread (or biscuit) crumbs, a lemon cut in small pieces, and a teaspoonful of baking powder, and half a cup of milk; stir well and put in a buttered mould and steam two hours.

Pumpkin baked in the oven is much better than boiling for pies, as no moisture remains. When done scrape off with a spoon.

"What is this spontaneous combustion, anyhow?" "It's a fire that lights itself." "By George! that's just the thing. I'll lay in a stock of 'em for the furnace next winter."

**Uncle Tom's Department.****A Visit to Banff.**

MY DEAR NEPHEWS AND NIECES :—

Without saying where I began my journey, or the road travelled in reaching this pretty place in the Rockies, I must just tell you that the morning of Sept. 8th found me at Banff Station on the C. P. R. Go where you will you always meet some one you know, or one whose friends are among your acquaintances. Uncle Tom was not long in finding an intimate friend of by-gone days pleasantly and profitably spent in the capital of dear old Ontario. Three days in the company of this friend were days that swiftly passed away.

Banff, as we have said, nestles amid the Rockies and recalls the words of the psalmist, "as the mountains are round about Jerusalem". Through the National Park there swiftly flows the clear, cold, blue waters of the Bow river, joined in its foaming fury to reach the open plains to the east, by the beautiful Spray, a few hundred yards from the C. P. R. Hotel. To the north-east there rises in rugged grandeur the Cascade Mountain peak some five thousand feet in height. East there rests the more humble Tunnel Mountain, encircled by a carriage drive, and a bridle path winds its way to the summit, from which a "sea of mountains" can be seen. To the south-east the Razor Back frowns fiercely down upon the traveller standing on the bridge across the Spray, as it quietly joins its larger friend the Bow. Along the base of Sulphur Mountain, to the south-west, there rests amid the pines and spruce, through which there wind beautiful drives, The Sanitarium, Grand View, and C. P. R. Hotels, giving ample and varied accommodation to every class of weary traveller waiting to rest awhile and regain strength in this health-giving retreat of nature. But nature ever gives with a wide open hand, and out of the depths of Sulphur Mountain there comes the warm and healing streams of the now famous Banff Sulphur Springs.

The memories of painful days, and the offerings of gladdened and grateful hearts are here to be seen in crutch and cane left behind by those who came bound by disease, and have gone with a new life within them as a result of bathing in these delightful pools and caves—gifts of nature's goodness to her suffering children. My dear nieces and nephews, if in the battle of life you should be stricken down or worn out by the strife, pay a visit to the Hot Springs at Banff and see if they do not do more than doctor's drugs towards restoring your shattered forces and renewing you for the work of coming days. Here you have your choice of all degrees, from the unpleasantly hot to the delightfully warm, and every attention is paid by attendants to your comfort at each and all of these places where the healing waters come.

From Banff, partly along the valley of another stream—the Devil's Creek—there winds a beautiful drive of about nine miles out to Lake Minnewonka, a beautiful blue sheet of water fourteen or fifteen miles in length and about one and a-half miles in width, surrounded by mountain peaks, the sentinels of time, overlooking the blue depths of this Sea of Galilee of the west. Row boats, Peterboro' canoes and a steam yacht are, for a small charge, at the disposal of pleasure seekers, or those bent, as Peter was when he said, "I go a fishing," and such have never been



known to say "we have toiled all night and taken nothing".

I think I am safe in taking for granted that nearly all of you are Canadians, and in the matter of scenery be loyal to Canada. One who has travelled extensively in older lands and knows a great deal of the Alps and other scenes of the grandeur and beauty of nature, has told me that the scenery of the Rockies, and especially that of the Selkirk range, surpasses anything in European lands. As we look on these "everlasting hills" we but dimly divine how long the earth was in preparation for the abode of man. And as we see them crumbling slowly into dust, under the action of frost, and wind, and rain, we understand how "the mills of the gods grind slow but sure". But amid all the changes of time as we see these "everlasting hills" vanishing thus before our eyes, we can say,

"I to the hills will lift mine eyes,  
From whence doth come my aid,  
My safety cometh from the Lord,  
Who heaven and earth hath made."

That in some holiday of life you may one and all see Banff before you pass away, is the wish of your,

UNCLE TOM.

**Puzzles.**

**1—CONNECTED DIAMONDS.**

(1) A letter; (2) a rodent; (3) to scatter; (4) a class of workmen; (5) vapor; (6) a limb; (7) a letter. (1) A letter; (2) a tool; (3) a stream; (4) from end to end; (5) supporters; (6) a small opening; (7) rate; (8) a bird; (9) a letter. **EDDIE R. DOW.**

**2—NUMERICAL ENIGMA.**

My 7, 2, 3, 4, 25, 5, 15 is a kind of drink.  
My 10, 8, 9, 13, 27 is to make a noise.  
My 23, 20, 28, 24, 14 is to plunge into water.  
My 18, 19, 6, 1, 11 means retinue.  
My 17, 30, 16, 20, 31 is a dress.  
My 12, 13, 22, 28 is a company of people.  
Whole a wise saying. **HENRY REEVE.**

**3—ILLUSTRATED REBUS.**



**4—CHARADE.**

While scanning o'er the *ADVOCATE*  
One fine September eve,  
The puzzle column I chanced to spy,  
And what did I perceive?

Oh! yes. If I remember right,  
Two names there I did seek:  
Miss Armand's down at Pakenham,  
And Reeve's of Highland Creek.

These two, alas! were all I found,  
The rest, oh! where are they?  
Who once took part in puzzle work,  
Have they all gone astray?

I fear, but, ah! alas! my fears  
I am afraid are true:  
COMPLETE at first, they fail, they stop,  
THE LAST I can't see through.

The diligent comes out ahead:  
The foremost wins the race,  
So, now, be up and doing, boys,  
And girls, press on apace.

Let forward e'er your motto be,  
"Perseverance is success!"  
The one who tries the hardest, boys,  
The honor will possess.

And now, dear cousins, just a word,  
PRIME faithful, and do not stop;  
And forever keep this thought in view,  
There's always room at the top,  
Copenhagen, Ont. **FAIR BROTHER.**

**5—PROGRESSIVE NUMERICAL ENIGMA.**

In this puzzle just begun  
A Roman numeral is 1.  
Reading now those lines you view  
What you would find in my 1, 2.  
If two rogues should matches be,  
We'd say they were—well, 1, 2, 3.  
To measure, now you do implore—  
Here, then, it is—1, 2, 3, 4.  
Something to measure with as I'm alive  
Will be found in the total 1, 2, 3, 4, 5.  
**ADA ARMAND.**

**Answers to September Puzzles.**

- 1—The *ADVOCATE*.
- 2—FARMER'S *ADVOCATE*. Yeomen of Ontario.
- 3—T R A I T  
R O U T E  
A U G E R  
I T E M S  
T E R S E
- 4—Who does the best he can does well.
- 5—Variety is the spice of life.

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

Henry Reeve, I. Irvine Devitt, Emma Skelly, Gertrude Moore, John H. Wyld, Harry Elson, Mary F. Dixon, Em. Wilson, H. G. Green, Arthur Billings.

**FIRST PRIZE STORY.**

**The Custom of Telemark.**

BY MISS ANNIE MANSER, CROSSHILL, WATERLOO COUNTY, ONTARIO.

Anyone who wishes to understand the life of the shepherds and country people in Norway will not omit to climb the lofty, trackless mountains of the Telemark. Here, as in the sequestered valleys between the enormous rocks which constitute the Scandinavian peninsula, there dwells a race of strong peasants, healthy children of nature, with simple old-fashioned manners and customs, earnest and vigorous as the land of their birth. And what kind of a land is it? It consists of rocks torn asunder, with their summits stretching up to heaven, yawning abysses with roaring waterfalls pouring over them, and far-stretching highlands covered with prodigious forests. Such is the simple description of the natural scenery in this part of Norway.

In the forests there springs up under the broken mouldering branches of the trees a hidden vegetable life. When the long winter's snow melts and fills with water the innumerable brooks, there is produced a wonderful beauty among the moss and grass, the soft berries and the wild flowers. How noble then is the view from the top of the high mountains down into the valley.

Below, at a depth perhaps of several thousand feet, roars the mountain torrent. Dashing from cliff to cliff it pours along free and brave—a hero that despises every chain. Brave and free, too, are the people who live in these valleys beside such waters.

The Norwegian peasant is slow, but full of energy, rough but yet hospitable, and not without national pride.

From the old heroes of his country he has inherited the custom of "thouing." With a friendly "thou," he addresses king and peasant alike. His life and his cottage are as simple as he is himself. Those who would look into the heart of the Norwegian peasant, and know what his real nature is, ought to visit him in his own home. The family, often a large one, sit in a small room around a boiling kettle, which conceals in its bosom the evening meal. The kettle is suspended from the smoke-begrimed roof. Peering through the smoke with presses under the kettle may be seen eager faces of children. By the light of the fire the father reads rare and wonderful histories or tales, some of them handed down from the original inhabitants of Norway. They are deficient in coloring and adornment, and they want the clearness and point of the stories of more southern countries, but they are earnest as the northern heavens, deep as the mountain lakes in which are mirrored the lightest clouds. Earnestness and depth are the noble characteristics of the Northman.

**SECOND PRIZE STORY.**

**The Woodville Scare.**

BY FRANKLIN POLLOCK, MOUNT FOREST, ONT.

One bright Sunday morning in July the little village of Woodville was mildly excited by the news that the night before the cellar of one of the hotels had been entered and a quantity of provisions taken. On the steps of the Methodist church lay crumbs of bread, fragments of meat, and an empty black bottle, plainly showing where the thieves had lunched.

Woodville was not a criminal community. The inhabitants had slept peacefully with unbolted doors, and in summer with open windows; and their sense of security was not much disturbed by this incident; but when, a short time after, one of the dry goods stores was robbed they began to take precautions. A pane of glass had been removed from the window, the store entered, and, as the keys had been left in the door of the safe, all the robbers had to do was to remove its contents. About three hundred dollars were taken, and in the safe lay a dirty piece of paper with the inscription, "I owe you \$300".

The same night a boot and shoe store just across the street was robbed of about three hundred dollars worth of its best goods. The postmaster, Mr. Irvine, also heard a sound, and on getting up discovered four men in the act of opening the door of the office. They took to flight at his appearance, and from the distance fired a harmless pistol shot at him.

These occurrences nearly caused a panic in the town. Doors were barred and bolted at night, and nearly every one felt uneasy. But worse was yet to come.

One night the inhabitants were aroused by the sound of the fire bell, and the dry goods store of Smith & Co. was discovered to be in a blaze. By vigorous efforts the fire was confined to a frame addition at the rear, where the family resided. A dwelling next went, only some few articles being saved. Then a large hotel fire and burned to the ground, the fire communicating to a small shop which was also consumed. Woodville was receiving a baptism of fire. The inhabitants were panic-stricken. The general feeling was that an incendiary was at work, and this suspicion was confirmed when, a few weeks later, in the store-house of a dry goods store, was found a pile of rags and straw soaked in coal oil and placed directly under the tap of a coal oil barrel. If possible, this increased the terror. A detective came up from Toronto, but in that small place everyone knew who he was, and he soon left in disgust, saying he could do nothing.

In about two weeks the same store caught fire about midnight, and at dawn it lay in ashes. A quantity of the rescued goods were stolen and never recovered. There were seen at the fire two disreputable looking characters, who did their best to discourage the workers by saying that it was impossible to put out the fire.

After that fate overtook two hotel stables, two more stores and another hotel. The insurance companies refused to insure in Woodville, and the town was in a fair way to be destroyed.

At this critical juncture a telegram arrived for Mr. Porter, the town constable. He left on the next train, and was absent a week, and it was reported that he was on the track of the criminals. When he returned he was accompanied by a villainous looking fellow, who was immediately confined in the lock-up. Next spring he was tried at G—, and confessed to having taken part in the burglaries, assisted by three others, whose names he refused to reveal. He stoutly denied any connection with the fires; but, nevertheless, after his capture the series of conflagrations ceased. He was imprisoned in the penitentiary for eight years.

The burned buildings have been rebuilt now finer than ever, but Woodville is not likely soon to forget the panic of the fall of 1887.



The Girl to be Avoided.

She is the girl who takes you off in one corner and tells you things that you wouldn't repeat to your mother.

She is the girl who is anxious to have you join a party, which is to be "a dead secret"; and at which, because people are very free and easy, you are uncomfortable and wish you were at home.

She is the girl who tries to induce you, "just for fun," to smoke a cigarette, or to take a glass of wine, and you don't know, and possibly she doesn't, that many of the sinners of to-day committed their first sins "just for fun."

She is the girl who persuades you that to stay at home and care and love your own, to help mother and to have your pleasures at home and where the home people can see them, is stupid and tiresome; and that spending the afternoon walking up and down the street, looking at the windows and the people, is "just delightful."

She is the girl who persuades you that slang is witty, that a loud dress that attracts attention is "stylish," and that your own simple gowns are dowdy and undesirable. She doesn't know, nor do you, how many women have gone to destruction because of their love for fine clothes.

She is the girl who persuades you that to be on very familiar terms with three or four young men is an evidence of your charms and fascination, instead of being, as it is, an outward visible sign of your perfect folly.

She is the girl who persuades you that it is a very smart thing to be referred to as "a gay girl." She is very, very much mistaken.

And of all others she is the girl who, no matter how hard she may try to make you believe in her, is the girl to be avoided.

The man who is waiting to be happy will next year at this time be waiting still.

"Can you cook?" he asked anxiously, ere he popped the question. "I don't know," she answered, "but I—I can try." "Not on me," he rejoined, reaching for his hat.

THE HUSBAND'S CURIOSITY.—"What nonsense is there?" he asked, as he looked over her shoulder at the paper she had in her hand. "Some fool dress pattern, I suppose." "No," she replied, "it's a diagram of the pitcher's curves in base-ball." "Lemme see it as soon as you get through, will you?"

NEW ADVERTISEMENTS.

Northern Business College—C. A. Fleming, Prin. Butter Makers—Wm. Davies & Co. For Sale—Prize Poultry—Archie Thompson. Dry Earth Closets—The Gananoque Gear Co. Holstein Cattle For Sale—Jno. A. Frye. Executors' Sale—Thomson, Henderson & Bell. Registered Duroc Jerseys—Peter Lamarrsh. National Washer—Lent & Coyne. Annual Dispersion Sale—J. R. Martin. Chester White Poland Chinas—H. George & Son. Holstein-Friesian Cattle—W. McClure. Holsteins—J. C. McNiven. For Sale—Cheap Farms in Virginia—The Virginia Immigration, Land & Improvement Co. Dispersion Sale of Imp. Yorkshires—Bunberry & Jackson. Public Sale—No Reserve—F. W. Stone. Sleights, etc.—Bain Wagon Co. For Sale—Jerseys—J. D. Stewart. Blood Purifier for Horses and Cattle—Dick & Co. For Sale—Three Yearling Bulls—Wm. Linton. Clydes, Yorkshires, etc.—Frank Rusnell. Common Sense Wagon Rack—R. Caldwell. Guelph Business College—M. McCormack, Prin. Berks and Yorkshires—W. H. & C. H. McNish. Razor Steel Cross-Cut Saw—Shurly & Dietrich. Cider Mills—L. Sells & Co. Washer—Craig & Sibbald. Polled-Angus—Dr. Craik.

Prize Poultry For Sale.

A limited number of breeding fowls at right prices. Bronze & White Holland Turkeys; Emden, Toulouse and China Geese; Pekin, Rouen and Ailsbury Ducks; White Plymouths and Light Brahmans. ARCHIE THOMPSON, Allen's Corners, P.Q. 310-c-OM

EXTENSIVE AUCTION SALE OF THOROUGHBRED STOCK

AT—Cotswold Ridge Farm North half of Lot 9, Con. 11, Reach, the property of Mr. JOSHH WARD, ON

WEDNESDAY, OCTOBER 14th.

Consisting of 120 Cotswold Sheep—ewe lambs, ram lambs and yearling bucks. Also a number of Imported Cotswold Eyes and Rams, bred by the best breeders in England, and some Dorsets, will be offered for sale, and a number of Durham bull and heifer calves and Berkshire boars and sows are included.

Uxbridge Station on the Midland Branch of G.T.R. Jos. Ward, MARSH HILL P. O., Ont. 310-a-O

By O. H. Forbush, Auctioneer. AT DANBURY, CONN., FAIR GROUNDS Friday, Oct. 9, 1891.

Dispersion of Frye's Hillside Herd HOLSTEIN CATTLE,

comprising 90 head of these famous pure-bred dairy cattle of richly bred and fashionable pedigrees, many of them imported at great cost, and all in show condition. This herd contains the acknowledged greatest sire of large butter yielding cows the breed has known, (Mercedes Prince) and many cows in calf by him, also his offspring of all ages, Advance Registry Stock. All will be sold to the highest bidder.

Full Descriptive Catalogues now ready. Sale begins at 10 o'clock a. m., Oct. 9. Address, John A. Frye, Marlboro, Mass. 310-a-O

PUBLIC SALE - NO RESERVE

MR. F. W. STONE, Guelph, Ontario, will sell at what is known as the Patterson Farm, Front Lots 6 and 7, Con. 7, Township of Puslinch, four (4) miles from Guelph.

60 PURE-BRED SHORTHORN AND HEREFORD CATTLE, 100 COTSWOLD AND SOUTHDOWN SHEEP, SEVERAL BERKSHIRE PIGS and AGRICULTURAL HORSES,

ON THURSDAY, OCTOBER 22ND, 1891.

Sale at 12 o'clock, sharp. Catalogues containing particulars of Pedigrees, Terms, &c., sent on application. FREDERICK W. STONE, 42 Gordon St., Guelph. 310-a-O

ANNUAL DISPERSION SALE

CLAREVILLE SHORTHORNS and HEREFORDS Border Leicester Sheep, Berkshire Pigs, Thoroughbred Trotter, Roadster and Heavy Draught Horses, &c.

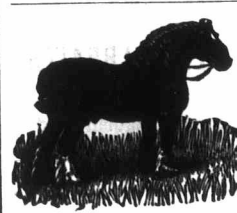
J. R. MARTIN, Clareville Stock Farm, adjoining Cayuga Station, on the Grand Trunk and Michigan Central Railways, will sell by public auction, at said Farm, on Tuesday, 20th October, 1891. The Shorthorns are so well known for their milking strains that they need no commendation. The Horses are of the Hyder Ali, King Alfonso, Don Pedro, Almont, Patchin and Dictator strains.

SALE TO COMMENCE AT NOON, SHARP. BASKET LUNCH ON THE GROUNDS. TERMS.—Twelve months' credit, on approved joint notes. Seven per cent. off for cash. Catalogues ready in a few days. Several choice farms for sale or to rent. Reduced R. fares expected. Trains on both roads due before noon. 310-a-O

DISPERSION SALE OF IMPROVED YORKSHIRES.

Messrs. Bunbury & Jackson, Oakville, will sell by public auction, without reserve, on a day in November to be named in Nov. number of FARMER'S ADVOCATE, the whole of their fine herd of swine, including Sir Walter Scott, winner of 2nd prize at Toronto, 1891, and Lady Duckering, dam of four winning pigs at Toronto, and herself 3rd in the class for aged sows this year, together with 150 head of Registered Improved Yorkshire Pigs. Catalogues ready after Oct. 10th. 302-y-OM

STOCK FOR SALE.



CLYDESDALES For Sale.

First Prize-winning Stallions, the get of Darnley (222) and Lork Erskine (1744).

JAS. HENDERSON, 302-y-OM BELTON, ONT.



CLYDES, SHIRES AND YORKSHIRE COACHERS.

MR. FRANK RUSNELL, Mount Forest, Ont., offers for sale at low figures and on easy terms choice stallions of the above breeds; also pedigreed Improved Large Yorkshire Pigs, at \$15.00 per pair. 310-y

5-YEAR-OLD

Imported Clydesdale Stallion.

I offer for sale, at reasonable figures, the Imported Clydesdale Stallion Seabreeze (6281), sire Viscount (2477), dam by Jacks the Lad (401). A prizewinner, sound and right and a sure foal getter.

WM. SMUCK, Commercial Hotel, Ayr, Ont. 309-c-OM

D. & O. SORBY, GUELPH, ONT.,

Breeders and Importers of

FASHIONABLY BRED CLYDESDALES

We always have on hand a large number of imported and home-bred Clydesdales (male and female) of good breeding and quality, which we will sell at honest prices. Our specialties are good and well-bred horses and square dealing. Come and see us or write for particulars. 302-y-OM

S. C. JOHNSTON,

Letters and telegrams—

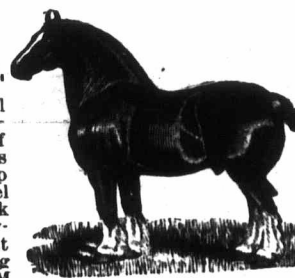
Manilla, Ont.,

(60 miles from Toronto, or the Midland), importer of

REGISTERED

CLYDESDALES.

The fifth annual importation consists of the get of the famous sires Lord Erskine, Top Gallant, Sir Michael S. Kelmorie. Stock all selected by myself, and for sale at the lowest living profits. 301-y-OM



INGLEDALE FARM, WINONA, ONT.

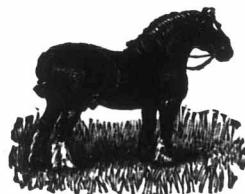
J. CARPENTER, Prop.

STANDARD-BRED TROTTERS, including the produce of such sires as Almont Wilkes (11242), 2,224, Gen. Stanton (2545), and Superior (3786), out of registered mares by Brown Douglas (19377) and Winfield Scott (1319). Two stallions of the choicest breeding now for sale. JERSEYS of the choicest butter strains. All the young things sired by the sweepstakes St. Lambert bull, Nell's John Bull. Young stock for sale. Prices and terms reasonable. Also a choice fruit and stock farm for sale. 307-y-OM



**IMPORTED & CANADIAN-BRED CLYDESDALES.**

BEATTIE & TORRANCE, Summerhill Farm, Markham, Ont., importers of and dealers in Imp. Clydesdale Stallions and Mares, of the choicest strains; also Reg. Canadian-breds always for sale. 304-y-OM



**CLYDESDALE**  
STALLION  
**FOR SALE.**  
Sea Pilot, No. 3177,  
Vol. 6.  
Apply—  
**L. GALBRAITH,**  
Mt. Forest.  
310-tf-OM



Imported and Canadian bred  
**CLYDESDALES.**

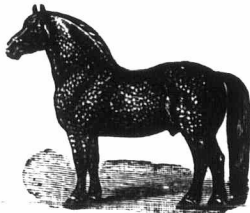
We challenge competition for quality and smoothness in our horses. Imported Stallions and Mares of the most desirable strains. We have been most successful in the show rings with mares, colts and fillies of our breeding. Stock for sale at reasonable prices.

**PROUSE & WILLIAMSON,**  
Ingersoll, Ont.  
310-a-OM

HON. LOUIS BEAUBIEN, Pres., MONTREAL.  
BARON EDEGRANCEY, Vice-Pres., PARIS, France.

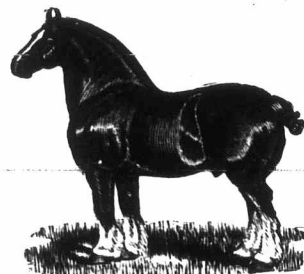
30 St. James Street, MONTREAL, CANADA.

**LA COMPAGNIE**  
**DU HARAS NATIONAL**



**NORMAN, PERCHERON, BRETON STALLIONS**  
306-l-OM Canadian Horses.

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

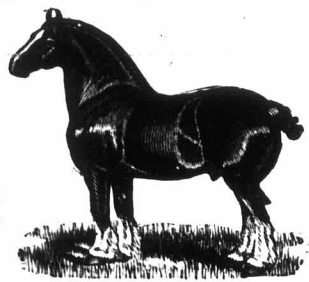


We have on hand a large number of Imported and Home-bred Stallions and Mares which we offer at reasonable prices and easy terms. Visitors always welcome. Catalogue on application.

**DUNDAS & GRANDY,**  
SPRINGVILLE P. O.,  
303-y-O Cavanville Station, C. P. R.

**ROBT. NESS, WOODSIDE FARM,**  
—IMPORTER AND BREEDER OF—  
Clydesdales, Shires, Coachers, Shetlands, and Ayrshire Cattle.

I have still a few of the twelfth yearly importation of high quality on hand, notably, James Arthur (5888); sire Macgregor (1457); sire of dam Prince of Wales (673); Macheemie (7009); sire Macgregor (1485), own brother to the great breeding horses, Macpherson, Macalun and Energy, Yorkshire Coachers. Seven imported mares from Druid, Daruley, etc.; four in foal. Also some good Shetlands. Having every facility for purchasing direct from the breeder myself, neither acting agent in Scotland or here, and paying cash, I am prepared to sell on any terms agreed upon. Quality and pedigree of the best. Give me a call. The farm is situated 40 miles southwest of Montreal, on the G. T. R., and 100 miles east of Ottawa, on the C. A. R. Station on the farm.  
303-y-OM **ROBERT NESS, HOWICK P.O., Que.**



**Clydesdales, Shropshires and Berkshires.**

Choice Registered Canadian-bred Clydesdale Colts and Fillies, Shropshires, imported and Home-bred of the very best strains. Berkshires, bred from Snell Bros.' stock. Prices right. Always glad to show stock. **T. M. WHITESIDE,** Ellesmere P.O., Ont., Agincourt Station on C. P. R. and Midland Div. G. T. R., 1 mile. 304-y-OM

**- ENGLISH SHIRE HORSES. -**

**J. G. WARDLOWE,** Fairview Farm, Downsview, Ont., breeder of and dealer in Registered Shire Stallions and Mares; also some choice Canadian-bred Draughts on hand. 304-y

**STANDARD-BRED TROTTERS**

Headed by Mambrino Rattler, alias Crown Prince (1247), the best bred son of Mambrino Patchen in the Dominion. Write for his terms of service. Also standard Mares of choice breeding. A grand young Stallion for sale. **A. M. Vansiele,** Jerseyville Stock Farm, Jerseyville, Ont. 305-y-OM

**ROSEDALE FARM**  
HIGHFIELD P. O.,  
MALTON, - ONTARIO.

**Jas. Cardhouse & Son**  
Importers & Breeders of Shire and Clyde Horses and Shorthorn Cattle.  
First-class stock at rock-bottom prices. Write or call.  
310-v-OM

**5 SHIRE STALLIONS FOR SALE**

**CHIEFTAIN,** 7 years, imported; 2nd prize at Royal Show '87; **ACTIVE,** 4 years, imported; 1st prize at Buffalo Show '88; **CHARLIE,** 3 years, imported; 1st prize at Toronto Show '90. Also a two-year-old and a yearling, both from imported sires and dams. All these horses are registered, and are sound and right in every way. We will sell any or all of them for far less than their value, as we are overstocked and have no use for so many stallions. This is a rare chance to get a good registered Shire at your own price. Address—  
**MORRIS, STONE & WELLINGTON,**  
308-f-OM Welland P.O. and Station, Ont.

**Prize-Winning Ayrshires for Sale**



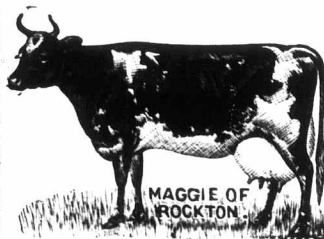
**GURTA 4th**  
(1181)  
Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address  
**THOMAS GUY,**  
290-y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

**Ayrshire Cattle & Poland China Hogs, MERINO SHEEP AND FANCY FOWLS.**

We have the largest herd of Poland Chinas in Ontario. At the last Industrial Fair we carried off 17 prizes out of 26, including both prizes for pens. We breed from none but the best, and our aim is to supply first-class stock at living prices. We mean business. Write, or come and see us.  
**W. M. & J. C. SMITH,**  
310-y O M. Fairfield Plains P. O., Ont.

**PRIZE-WINNING AYRSHIRES**  
**FOR SALE.**

I have at present one of the largest & best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.  
**JAS. McCORMICK,**  
299-y-OM Rockton, Ont.

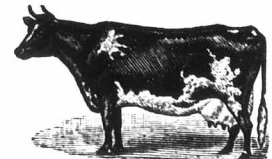


**PARK HILL HERD OF AYRSHIRES.**

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** (3971), which is at the head of the herd.

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

**Imported and Canadian-Bred**



**AYRSHIRES AND CLYDESDALES**  
**FOR SALE.**

I have on hand a large herd of finely-bred Ayrshires of splendid quality. My Clydesdales are also first-class. Stock for sale. Prices and terms liberal.

**THOS. BROWN,**  
310-y-OM Petite Cote, P. Q., near Montreal.

**JERSEYHURST FARM, MARKHAM, ONT.**  
**ROBT. REESOR,** importer and breeder of A. J. C. C. Jerseys of the choicest breeding, with the St. Helier bull **Ottolie 17219** at the head of the herd. Stock of all ages on hand and for sale. 308-y-OM

**FOR SALE.**

**TWO PURE JERSEY CALVES,**  
male and female, solid colors, black points. Sire "John Bull's Eclipse," A. J. C. C. Fine stock, moderate figures.

**J. D. Stewart,**  
310-a-OM Russeldale, Ont.

**Jerseys for Sale.**

Some of the finest heifers and calves I ever bred, and at lower prices than I ever offered before. Registered, and express paid by me to any reasonable point. Herd headed by the famous pure St. Lambert bull, Canada's Sir George, prize winner every time shown, son of Allie of St. Lambert, 20 3/4 lbs. butter in one week; Massena's son, pure St. Lambert sire, dam the great Massena, one of the wonders of the Jersey world, estimated to have made 902 lbs. 2 oz. butter in one year and eleven days—actually yielded 9,099 lbs. milk in one year and eleven days; Signal of Belvedere, inbred Signal, dam the celebrated prize cow, Miss Sate-nella, 20 lbs. 6 oz. butter in one week, on second calf only.

**MRS. E. M. JONES,**  
303-y-O M Brockville, Ont., Canada.

**JERSEYS FOR SALE**

Nine Heifers and Heifer Calves—six registered in A. J. C. C.; five in calf to 100 per cent. the grandest bred Jersey bull living, being full brother to Stoke Pogis 3rd; all from very rich milking cows. Also Seventy Imp. Shropshire Ewes, Shearlings and Lambs, sired by first prize rams at Toronto Industrial, 1890.

**W. D. REESOR,**  
310-a-OM ELM PARK FARM, MARKHAM.

**SUNNY BRAES FARM**

Hillhurst, P. Q.

**ST. LAMBERT JERSEYS.**

The prize-winning herd of the Eastern Townships, headed by Rene of St. Lambert (2643), winner of 1st prize and sweepstakes wherever shown. I make a specialty of pure St. Lambert blood, and breed none but the best. Choice young stock for sale. Terms, prices and pedigrees on application.

**Mrs. C. H. Crossen,**  
Sunny Braes Farm, Hillhurst, P. Q.  
310-y-OM



**GLEN ROUGE JERSEYS!**  
**WM. ROLPH**, Glen Rouge Farm, Markham, Ont., offers for sale Jerseys of all ages from his famous herd. The world-renowned St. Lambert blood a specialty. Also registered Clydesdale Horses. 309-y-OM

**DUROC JERSEYS.**  
 50 choice Spring Pigs, ready to ship four families. PRICES LOW. WRITE  
 309-b-O **QUINCY McBRIDE**, Burton, Mich., U.S.A.

**REGISTERED DUROC JERSEYS.**  
 The Pioneer Herd of these famous American hogs has its headquarters in Essex County, Ont. Address, **PETER LAMARSH**, WHEATLY, ONT. 310-y-OM

**OAK RIDGE STOCK FARM**  
 Shorthorns & Berkshires



My herd of Shorthorns are from select milking strains. Young animals at right prices. A few fine yearling bulls now ready. For particulars and pedigrees of stock address  
**DAVID HAY**, ARKONA, ONT. 309-y-OM

**"SHORTHORNS ARE LOOKING UP,"**  
 But times are hard, and money still scarce. I will sell a few well-bred bulls and heifers of Bates blood, and an aged bull at hard-pan prices. Write me, or come and see them. **M. G. Ireland**, Meadow Lawn Farm, COPETOWN, ONT. 306-y-OM

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



Announces that he has for sale, at MODERATE prices, a large and exceedingly good lot of young things of both sex. The calves, yearlings and two-year-olds, are particularly good—all by imported sires and mostly from imported dams of the best strains obtainable in Scotland.

**EXCELLENT CLYDESDALES OF BOTH SEX FOR SALE.**  
 New Catalogue for 1891 now ready for delivery. Send for one; they are sent free.

My motto: "No business no harm."  
 Greenwood P. O. and Telegraph Office, Clarendon Station on C. P. R., or Pickering Station on the G. T. R. Parties met at either station on shortest notice. Come and see them. 290-tf

**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**, PORT PERRY, ONT. 290-y

Shorthorns, Yorkshires and Berkshires.

My Shorthorns are bred from stock imported by such noted breeders as Arthur Johnson, J. C. Snell and Green Bros. I have a few choice heifers for sale. My Improved Large Yorkshires were imported directly from the famous herd of C. E. Duckering, Kirtou, Lindsay, England. I have some young pigs imported in their dam, for sale. Prince Regent, bred by Snell Bros., heads my Berkshire herd. Times are hard and my prices are right. Write or call. **A. F. McGILL**, Hillsburg, Ont. 302-y-OM

**FARMERS, LOOK HERE.**

If you want a registered Shorthorn bull I can give you your pick of three, from 10 to 18 months old, for \$40. These bulls are sired by Royal Barrington 3rd (10210) and out of cows of a grand milking strain, but they and a few choice cows and heifers must be sold as I am going out of the business.

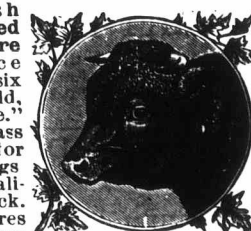
**C. PETTIT**, South End P.O., Ont. 308-d-OM

**SHORTHORNS.**  
**6 Show Bull Calves**



from imported cows and their daughters, grandly bred and first class stock: red and rich roan. Price: reasonable. 308-OM  
**D. ALEXANDER**, Bridgen, Lambton Co., Ont. 308 OM

Shorthorns, English Berkshires & Improved Large White Yorkshire Swine. Some choice Shorthorn Bulls from six to sixteen months old, the get of "Roan Prince," a number of first-class Berkshire Boars fit for service; also young pigs six weeks old, good quality and from imp. stock. Also Improved Yorkshires of same age and from imported stock. Prices reasonable. 305-y-OM **H. J. DAVIS**, Woodstock, Ont.



**NEIDPATH STOCK FARM.**

We breed Scotch Shorthorns, founded on choice representatives, from the famous Aberdeen herds of Duthie, Marr and E. Cruickshank, headed by the Cruickshank Victoria-Noupareil bull INDIAN PRINCE. Produce only for sale. Address—



**THOS. BALLANTYNE & SON**, 302-y-OM STRATFORD, ONT., CAN.

**SHORTHORNS, CLYDESDALES & COTSWOLDS.**



I have now on hand FOR SALE an extra good lot of Truly-Bred Shorthorns, Clydesdales and Cotswolds. Among my Cows, Heifers and young Bulls are some fine show animals. The Clydesdales are of equal quality. My Prices are low and Terms liberal. Visitors welcome. Correspondence solicited.

**DAVID BIRRELL**, Telegraph and Post Office—GREENWOOD, ONT. 309-f-OM

**SHORTHORNS, BERKSHIRES, Plymouth Rocks, Bronze Turkeys.** Write me for prices on the above. I have one of the finest show cows in Ontario for sale. Waterloo-Booth strain. H. Chisholm, Montrose Farm, Paris, Ont. 309-y-OM

**CHOICE SHORTHORNS**

Mr. John Ackrow & Son, Hillside Farm, Highfield P.O., Ont., have been breeding Shorthorns for over thirty years, and now offer a few young bulls and heifers of the richest breeding for sale at reasonable figures. Our cattle are the smooth, short-legged, beefy kind. Imported Scotch bull Reporter heads the herd. Station and Telegraph, MALTON, ONT. 307-y-OM



**SHORTHORNS AND BERKSHIRES**

The herd is headed by the noted Sir Christopher =377=, and Mina Chief =13670=. The females consist of Mina and Strathallan families. Our Berkshires are prize-winners wherever shown. Choice young bulls and Berkshires for sale.  
**C. M. SIMMONS**, Ivan P. O., Hilderton Stn., Ont. 309-y-OM  
**JAMES QUIRIE**, Delawon, Ont.

**SHORTHORNS**—From J. W. Russell, Jno. Dryden, and Green Bros.  
**IMP. YORKSHIRES**—From Ormsby & Chapman, and Green Bros.  
**BERKSHIRES**—From J. G. Snell & Bros.  
 The best that money could buy from these well-known herds. All stock registered.  
**J. G. MAIR**, 310-y-OM Maplewood Farm, Howick, P. Q.

**SCOTCH-BRED : SHORTHORN : BULLS.**

Scotch-Bred Heifers, Imported Shropshire Rams, Imported Ewes, Home-Bred Rams, Home-Bred Ewes, FOR SALE,

in any number. All of very best quality, and at the lowest prices. We want 500 recorded rams for ranches. Correspondence solicited.



**John Miller & Sons**, Brougham, Ont. Clarendon Station, C. P. R., 22 miles east of Toronto. 308-y

**BOW PARK HERD**  
 —OF—  
**PURE-BRED SHORTHORNS.**

Have always on hand and for Sale young Bulls and Females, which we offer at reasonable prices.

ADDRESS—  
**JOHN HOPE, Manager**, 303-y Bow Park, Brantford, Ont.

**REGISTERED HOLSTEIN BULLS AND HEIFERS.**

John Pringle, Maple Lawn Farm, Ayr, Ont., offers for sale a few well-bred bulls and heifers of the above breed at reasonable figures. My bull, Ira's King, was bred by Dudley Miller, and my cows are all of choice breeding. 309-y-OM

**HOLSTEIN-FRIESIAN**

STOCK FOR SALE AT REASONABLE PRICES.

All my stock I have carefully chosen for their extra fine breeding and large milk records, and are all registered in Holstein-Friesian Herd Book. A visit, or correspondence solicited.



**R. HOWES CRUMP**, Masonville, 390-y-OM near London, Ontario, Canada.

**BROCKHOLME STOCK FARM**

Ancaster, Ontario.  
**R. S. STEVENSON**, Breeder of Holstein Cattle and Improved Yorkshire Pigs. Holsteins recorded in advanced registry. Yorkshires bred from imported stock. Young stock for sale at all times. 295 y-OM

**HOLSTEIN-FRIESIANS**  
 THE CHOICEST HERD IN CANADA.

Stock of highest excellence and most noted milk and butter families of the breed. Stock of all ages for sale. Prices right. Railway Station, Petersburg on G. T. R.; New Dundee P. O., Waterloo Co., Ont. Send for catalogue. 307-y-OM  
**A. C. HALLMAN & CO.**




**Holstein-Friesians**

My herd is composed of the choicest individuals obtainable, and belong to the best milking strains. Young stock at the lowest living prices. Communications promptly attended to. Watford R. R. Station. 306-y  
**S. D. BARNES**, - Birnam P. O.







**Holstein Friesians**  
of the most remarkable families and greatest performers. Stock of all ages for sale at the lowest possible prices. Railway Stations Tavistock and Hamburg, on G. T. R. Post Office Cassel, Ont.  
H. & W. F. BOLTERT.  
306-y-OM

**HOLSTEIN BULLS FOR SALE.**

Two nicely marked Yearling Bulls of the best milking strains.  
**JOHN TREMAIN,**  
302-y-OM FOREST, ONT.

**HOLSTEINS AGAIN IN FRONT.**

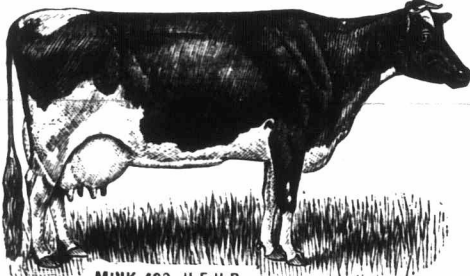
At Toronto show we showed eight head, and we brought away 4 firsts, 1 second, 2 thirds and 3rd on the herd. Stock for sale.  
**J. C. McNIVEN & Son,**  
307-y-OM Lansdown Farm, WINONA, ONT.  
13 miles east of Hamilton on the G. W. Div. G.T.R.

**HOLSTEIN-FRIESIAN CATTLE.**

My stock is selected from the leading herds. My principle is "Live, and let Live." Before you buy elsewhere, write me for quotations.  
**W. McCLURE,**  
310-y-OM Mint Creek Farm, NORVAL, ONT.  
On main line G. T. R.

**THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIANS.**

**SMITH BROS., Credit Valley Stock Farm,**  
CHURCHVILLE, PEEL COUNTY, ONT.,  
(24 miles west of Toronto).



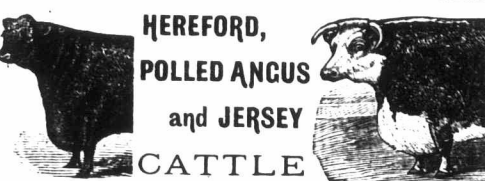
MINK 402, H.F.H.B.

This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records; young bulls of superior quality. Send for catalogue. 292-y-OM

**DAWES & CO., LACHINE, P. Q.**

—Importers and Breeders of—

**THOROUGHbred & SHIRE HORSES**



BERKSHIRE AND YORKSHIRE SWINE.

The largest breeding establishment in Canada. Inspection and correspondence solicited. 303-y-OM

**DR. CRAIK, OF MONTREAL,**  
Is importing and breeding the very choicest strains of

**Aberdeen Polled-Angus Cattle**

The Ballindalloch stock Erica Bull, "Emlyn" (sire of the first prize yearling heifer this year at the Royal Northern Show at Aberdeen), heads the herd. The herd contains breeding females of the following distinguished families: Ericas, Blackbirds, Princes of Aberdeen, Lady Fannys and Kinlochry Favorites, and Baronesses, with a few of lesser note. The latest addition to the herd is the yearling heifer, Pride of Gusaaban 34th, bred by Lord Tweedworth, and winner of the first prize at the Highland Society Show this year at Stirling, Scotland; winner also of the Lochiel champion cup and medal at Inverness, for the best pure-bred animal in all the cattle classes. 310-c-OM

**SOMETHING NEW IN CATTLE.**

The famous Norfolk Red Polled Cattle have for years been favorites with American farmers, combining, as they do, easy fattening and deep milking properties. Canadian farmers, it will pay you to introduce them to your country.  
**W. P. CROUCH, - Breeder and Importer,**  
Randolph, Crawford Co., Penn. 309-y-OM

1835—ESTABLISHED—1835



**SHERIFF-HUTTON -- HERD.**

Three yearling Bulls for sale from imported sire and dam. Good, strong animals. Prices to suit the times.  
**WM. LINTON,**  
310-y-OM AURORA, ONT.

**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,**  
298-y HILLHURST P. O., Compton Co., O.

**LORRIDGE FARM, RICHMOND HILL, ONT**

**MESSRS. ROBT. MARSH & SONS**  
offer for sale choice Southdown Sheep of all ages, from their well-known flock, which has taken over 2,000 prizes since its establishment. Correspondence promptly attended to. 307-y-OM

**Imported Sheep at Farmers' Prices.**

Hampshire Downs, Dorset Horns, Cotswolds and Lincolns. Rams and Ewes, imported and home-bred. For sale at reasonable figures. No duty. No quarantine.

**Mrs. Wm. Newton & Son,**  
309-c-OM PONTIAC, MICH.

**LINCOLN -- SHEEP**

I always have for inspection and sale a large flock of pure Lincoln Longwool Sheep, including many prize winners, having taken eighty prizes the last two years at the Royal and other shows, for both rams and ewes, also the first for the best collection of Lincoln fleeces of wool at the Royal Windsor show last year, which proves the character of this flock, which is most famous for their great size and 120 years' good breeding. Also breeder of

**WHITE -- YORKSHIRE -- PIGS**

Address—  
**HENRY DUDDING,**  
307-y-OM Riby Grove, Gt. Grimsby, Lincolnshire, Eng.

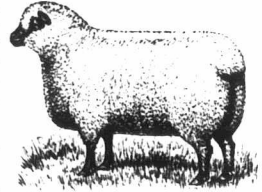
**SHROPSHIRE**

We handle none but the best. We sell at living prices. We have one of the most successful flocks in the show yard in England. We import direct from our English to our American flocks. Write for prices. We can suit you.

**THONGER & BLAKE BROS.,**

309-y-OM Wolf's Head Farm, NESSCLIFF, Salop, Eng., and GALESBURG, Mich., U. S. A.

**Greenhouse Short-horns & Shropshires.**— I offer for sale at very reasonable prices a very choice lot of imported 2-shear ewes, imp. rams and ewe lambs; also several home-bred lambs and one grand 2-shear ram. Plymouth Rock & White Leghorn Cock-erels cheap and good. Write or come and see me.  
**W. B. COCKBURN, ABERFOYLE, ONT., G. T. R.**  
Station, Guelph; C. P. R., Corwin. 310-j-OM



**SHROPSHIRE.**

A fine selection of **SHEARLING EWES, RAM AND EWE LAMBS**

from imported ewes and sired by Royal Uffington 11116

Address—  
**J. & J. SMITH,**  
309-c-OM Paris, Ont.



**SHROPSHIRE**

—AND—

**Improved Large Yorkshires**

Our breeding ewes are all imported from well-known flocks, and we have an extra good lot of lambs of both sexes for sale, got by our shearing ram that was highly commended at the Royal at Plymouth last year. Also a few choice ewes, and a nice lot of pedigreed Yorkshires from prize stock in England. Be sure to write us, or call and see us before buying. We have ninety head to select from.

**WM. MEDCRAFT & SON,**  
309-y-OM Sparta P.O. and Telegraph Station.

**SHROPSHIRE.**

Imported Breeding and Shearling Ewes; Shearling Ewes, Ram and Ewe Lambs from Imported Sire and Dam.

Prices lower than the lowest.

**SHORE BROS.,**  
308-y-OM White Oak.

**SHROPSHIRE SHEEP**

The Lougherew flock has been very successful in England and Ireland wherever exhibited. It consists of 300 breeding ewes of the most fashionable appearance & blood, Favens, Beach, Barrs, Coxon and Mansell. The Annual Sale first Wednesday in September.

**EWES AND RAMS FOR SALE.**

Apply to **J. DIXON,**  
307-y-OM Lougherew, Oldcastle, Co. Meath, Ireland.

**MAPLE SHADE**

STILL IN IT.

**SHROPSHIRE**

BOOMING.

Best lot of Lambs ever offered. Choice imported rams and ewes from the best flocks. Write for prices. Address—

**JOHN DRYDEN,**  
302-y-OM BROOKLIN, 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,**  
Onbury, Shropshire,  
ENGLAND.  
289-v

### PURE-BRED : REGISTERED : SHROPSHIRE!

I can sell six dandy Shearling Rams and some choice Ram Lambs, bred direct from imp. stock, at prices to suit the times. Come and see them.  
305-y-OM **W. G. PETTIT, FREEMAN P.O., ONT.**



### 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!

JUST IMPORTED.

I have arrived home with a choice lot of Shearling Ewes. I now offer for sale over 100 Imp. Ewes (nearly all shearlings) and an extra lot of Imp. Ram and Ewe Lambs. Also two very fine two-shear Rams from one of the oldest flocks in England. Visitors welcomed.



**W. S. HAWKSHAW,**

GLANWORTH, ONT.

(7 miles south of London.)

291-1f-OM



### SHROPSHIRE.

Imported Ram Lambs, Shearling Rams, Imported Breeding and Shearling Ewes; Ewe Lambs imported or bred from imported sire and dam.

**W. E. WRIGHT,**  
307-y-OM Glanworth.

### DORSET HORN SHEEP

MY SPECIALTY.



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



**TAZEWELL & HECTOR,**  
Importers and breeders of Dorset Horned Sheep and improved Yorkshire Pigs. JOHN TAZEWELL, Indian Village farm, Port Credit, Ont. THOS. HECTOR, The Cottage, Springfield-on-the-Credit, Ont. Stations—Pt. Credit, on G. W. R., Streetsville, on C. P. R.  
310-y-OM

### CHOICE REGISTERED SOUTHDOWN.

Messrs. A. Telfer & Son, Springfield Farm, Paris, Ont., have been breeding Southdowns for thirty years. A fresh importation just arrived. Stock for sale.  
300-y-OM

### TO STOCKMEN AND BREEDERS.

**LITTLE'S PATENT FLUID**  
**NON-POISONOUS SHEEP DIP AND CATTLE WASH.**

For the destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy. The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:

"MAPLE SHADE" HERDS AND FLOCKS.

BROOKLIN, ONT., Sept. 4th, 1890.  
DEAR SIR.—I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested. I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.  
Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to

**ROBERT WIGHTMAN, DRUGGIST, OWEN SOUND, ONT.**  
Sole Agent for the Dominion. 303-y-OM

**CHOICE PURE-BRED BERKSHIRES**  
A few grand pigs of both sexes, just weaned, from a first-prize sow. **A. D. ROBERTS, Walmer Lodge, ANCASTER, ONT.** 305-y-OM

**BERKSHIRES**  
AND  
**COTSWOLDS.**  
**J. G. SNELL & BRO.**  
EDMONTON P. O.,  
Brampton and Edmonton Railroad Stations.

Now is the time to secure young pigs from choice imported sows, and got by the renowned imported boars "Enterprise [1378]" and "Perry Lad [1378]." "Enterprise" won first prize at the two leading fairs in Ontario last year. He weighed just after landing from England 450 pounds. His pigs are coming fine, and are particularly well marked. We have for sale a grand lot of Yearling Cotswold Rams and Ewes which are well worthy the attention of those in want of such. Will be pleased to have visitors come and see our stock. Write for prices.  
298-y-OM

**S. COXWORTH, CLAREMONT, ONT.**  
Breeder of Pure-Bred Berkshires of the choicest strains. The imported boars Royal Standard and Prince Albion (1113) head my herd. My Sows comprise some of the best specimens that money could buy from such breeders as Snell Bros. and Geo. Green. I guarantee every pedigree, and furnish to register. Write for prices, and you will find them and the stock right. Satisfaction guaranteed. 304-y-OM

**IMPROVED BERKSHIRES.**  
Imported and home-bred; from the best strains  
**-YOUNG STOCK FOR SALE-**  
at Right Prices. Apply to—  
**Richard Debridge,**  
WINCHELSEA, ONT.  
290-y-0

**BERKSHIRES, SOUTHDOWN, Silver Grey Dorkings.**  
Breeding right. Quality right. Prices right.  
**E. MARTIN, Nithside Farm,**  
309-y-OM Paris Station, Canning, Ont.

**PIGS—FOR SALE—PIGS.**  
Our entire herd of registered Berkshires and Improved Yorkshires, including a wonderfully fine lot of breeding boars of both breeds. These herds comprise the best blood in the Province. Prices to suit the times.  
**W. H. & C. H. McNish,**  
310-a-0 **LYN, ONT.**

**PURE-BRED REGISTERED VICTORIA HOGS.**  
Choice young pigs, both sexes, from Geo. Davis' stock, sire a prize winner at Toronto. **Charles Brown, Drumquin P. O., Ont.** 306-y-OM

**PURE-BRED TAMWORTH HOGS AND CLYDESDALES**  
**JOHN BELL, Clydesdale Farm,**  
L'AMAROUX P. O., ONT.

offers for sale young Boars and Sows bred from registered stock, imported from the best herds in England. This famous breed of bacon pigs is recommended by the largest bacon curers in the world. Try them, it will pay you. Orders now booked for spring pigs. Some A 1 Clydesdale Stallions kept for service. Imported and home-bred Colts and Fillies for sale. 304-y-OM

**CHESTER WHITES.—POLAND CHINAS.**  
SIZE, QUALITY AND BREEDING COMBINED.

The Sweepstakes Herd of Chester Whites at Toronto

Write for prices. We can suit you. Every pig on our farm registered.

**H. George & Son,**  
310-y-OM Crampton, Ont.

### E. D. GEORGE

PUTNAM - - ONT.,  
Importer and Breeder of

**Ohio Improved Chester White Swine**

I make this one breed a specialty, and furnish a good pig at a fair price. Pedigrees furnished. Write for prices. 305-y

**R. H. HARDING,**  
Mapleview Farm, - THORNDALE, ONTARIO.

IMPORTER AND BREEDER OF

**OHIO IMPROVED CHESTER SWINE.**

My herd represents some of the best herds in Canada & the United States. Over forty pigs now ready for shipping. Personal inspection invited. Write for prices. 301-1-OM

### YORKSHIRES ONLY!

**MESSRS. BUNBURY & JACKSON, Oakville, Ont.,** have for sale choice young Boars and Yelts of the Improved Large Yorkshire breed, bred from stock imported from the best herds in England. Orders booked now for spring pigs. P.O., Telegrams and Station, Oakville, on G. T. R. 302-y-OM

**Pedigreed -- Improved -- Large -- Yorkshires.**

Mr. G. S. Chapman, of the late firm of Ormsby & Chapman, is still breeding pedigreed Yorkshires, and is prepared to book orders for young stock.

ADDRESS:—**C. S. CHAPMAN, The Grange Farm,**  
305-y-OM Springfield-on-the-Credit, Ont.

**IMPROVED LARGE YORKSHIRES**

Sixty head of the best strains and quality. Write for prices.

**SMITH BROS., Credit Valley Stock Farm,**  
CHURCHVILLE, - ONT. 302-y-OM

**A Good Pig with a Straight Pedigree at a Fair Price.**

The Pioneer Herd of Improved Large Yorkshires still sticks to its old motto and maintains its old reputation for good stock and square dealing. A few very nice young sows, bred to imported boars, and some excellent May pigs, just ready to wean, for sale at reasonable figures. First come, first served, so write soon. Address—**J. Y. ORMSBY, V. S., Grange Cottage, Streetsville, Ont.** 308-y-OM

**Improved Large (White) Yorkshire Pigs and Scotch Shorthorns.**

Entire breeding stock of Yorkshires are imported; specially selected from stock of F. Walker-Jones and Sanders Spencer, Eng. Registered sows and boars supplied not akin. Shipped to order and guaranteed to be as described.  
**J. E. BRETHOUR, Burford, Brant Co., Ont.**  
301-y-OM



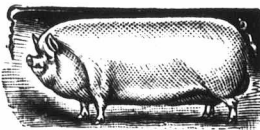
**The MARKHAM HERD of IMPROVED LARGE YORKSHIRES**  
 Markham Physician [96] at head of herd. A few spring pigs for sale yet. Am booking and filling orders for fall pigs. All stock registered.  
 Address—LEVI PIKE,  
 308-y-OM Locust Hill, Ont.

**IMPROVED -- LARGE -- YORKSHIRES !**  
 One of the oldest herds in Ontario. Imp. Boars of Spencer's and Duckering's stock in use ever since founded. Choice stock for sale. **JAS. FIELD & SON,** Castle Hill Farm, ANCASTER, ONT. 305-y-OM

**IMPROVED - YORKSHIRE - PIGS**  
 OF THE BEST QUALITY CAN BE OBTAINED AT MODERATE PRICES, FROM  
**C. E. DUCKERING,**  
 THE CLIFF, Kirkton, Lindsay, England,  
 the oldest and most successful herd in the country, having gained since 1856 nearly 3000 prizes. All pigs supplied either entered or eligible for entry in the herd book. 300-y-OM

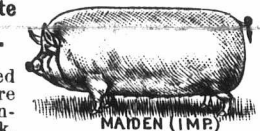
FIRST SWEEPSTAKES HERD OF  
**IMPROVED -- YORKSHIRES**  
 -- IN CANADA --

Selected from the well-known herds of the Earl of Ellsmere Prescott Union, and C. E. Duckering, England, by Jas. Main, who is considered one of the best judges of pigs in America. Also one imported Sow and several other Canadian-bred Sows and Boars of the well-known herds of Sanders Spencer and F. Walker-Jones, England.



REGISTERED SOWS AND BOARS MATED NOT AKIN.  
**Joseph Featherston,**  
 Pine Grove Farm, STRETSVILLE.  
 P.O. and Telegraph. 309-y-OM

Improved Large White Yorkshires, Pedigreed.  
 We have lately added to our herd, which are from the strains of Sanders Spencer, Charnock, and F. Walker-Jones, England. Young stock on hand at all times for sale. Apply to  
**Wm. Goodger & Son,**  
 306-y-OM WOODSTOCK, ONT.



**TAMWORTHS**

Improved Large Yorkshires.

Our stock is all imported from the very best herds in England, and every pig traces to the English Herd Book. We offer for sale at lowest figures Boars and Sows of the above breeds and of all ages. Write for prices, or give us a call and see our stock. Over forty head on hand.

**JAS. L. GRANT & CO.,**  
 Ingersoll, Ont. 308-y-OM

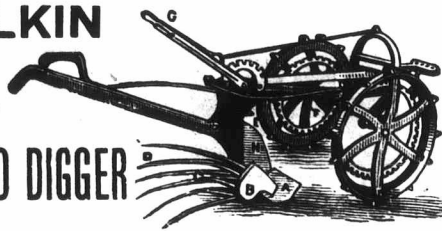
**PURE-BRED LEICESTER SHEEP !**  
 Ram Lambs, Shearling Rams, Ewes and Ewe Lambs, bred from prize sheep at Toronto. Address,  
**F. J. RAMSEY,**  
 310-a-OM DUNVILLE, ONT.

**J. Y. ORMSBY, V. S.**  
 (Ont. Vet. Col.), Live Stock Auctioneer and Commission Dealer, Streetsville, Ont. Sales of pedigreed stock a specialty. Member of the leading English and Canadian Live Stock Associations. Pedigrees searched and traced. All commissions personally executed. 308-y-O

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

**GOOD WAGES FOR GOOD AGENTS**  
 to canvass for the Ladies' Home Journal.  
 306-f-OM Curtis Pub. Co., Philadelphia, Pa., U.S.A.

**WILKIN**  
**POTATO DIGGER**  
 310 a-OM



**The Best in the Market !**  
 STRONG, SIMPLE AND COMPLETE.  
 Shovel A raises the drill or hill. Mould-board B and Standard H casts off the outside. 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.

ALEX. WILKIN, Manufacturer, London P. O., Ont.

DICK'S BLOOD PURIFIER FOR HORSES AND CATTLE



will remove all signs of fever, and consequently prevent any disease that may be going about from taking a firm hold on their constitution, will be found infinitely superior to any Condition Powder now used, as it loosens the hide, enabling the animal to cast its hair, and is also an unfailing eradicator of Bots and Worms. For sale everywhere, 50c.

DICK'S BLISTER, for spavins, ringbones, &c., 50c.  
 DICK'S OINTMENT, for sores, scratches, &c., 25c.  
 DICK'S LINIMENT is most excellent for swellings, bruises, scalds, sores, &c. in man or beast, and

a most wonderful cure for Rheumatism.  
 310-l-OM DICK & CO., P.O. Box 482, MONTREAL.

THE BIGGEST SNAP EVER OFFERED

**FAIRCHILD WASHER !**

Sells on Sight.

A Genuine Good Article. No Fake about it. Relieves Women from their Hardest Work.

**CRAIG & SIBBALD,**  
 Meadowvale, Ont. 310-y-OM

**HOME STUDY**

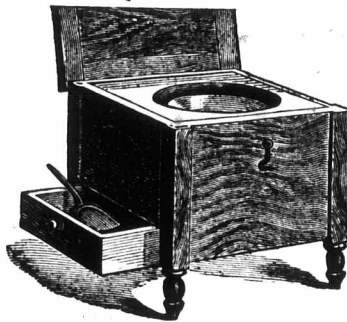
Secure a Complete Business Education at Your Own Home.

Thorough and practical instruction given by MAIL in Book-keeping, Business Forms, Penmanship, Arithmetic, Business Law, Letter Writing, Grammar and Shorthand. Prepare for Success in Business. Low rates. Distance no objection. Satisfaction guaranteed. Over 1000 students registered. Send for free Circulars to

**BRYANT & STRATTON'S COLLEGE,**  
 300-y-OM 24 Lafayette Park, Buffalo, N. Y.

**KEEP YOUR EYE AND HAND ON THIS**  
**"THE DOLLAR" KNITTING MACHINE**  
 MANUFACTURED BY **CREELMAN BROS GEORGETOWN, ONT.**  
 THIS ADVERTISEMENT IS FOR YOU. IT IS GOOD FOR \$2.00. SEND IT AND A 3 CENT STAMP FOR ALL PARTICULARS AND PRICE LIST. F. A. 310-d-0

**GANANOQUE DRY EARTH CLOSET !**



Perfectly free from odor. Ask cabinet-maker for sample. For illustrated catalogue and price list address—  
 Gananoque Gear Co. (Limited), GANANOQUE, - ONT. 310-y-O

**GUELPH Business College**  
 GUELPH, - ONTARIO.

The scope and thoroughness of our Commercial Course is strikingly shown by the fact that several of our students, during the past year, had been offered situations as Bookkeepers, on condition that they took the Commercial Course at the Guelph Business College.

In our Shorthand and Typewriting Department the two leading Shorthand Systems of the present day are taught.

In our Modern Language Department you can get a practical command of either French or German, while pursuing the Commercial Course, and without extra charge.

In Penmanship, our work is the admiration of all who see it. Send for a specimen.

For terms, etc., address  
**M. MacCORMICK,**  
 310-y-cot-0. Principal.

**BUTTER.**

We are open to make arrangements with Dairies for regular supplies of Fresh Butter. Correspondence invited.

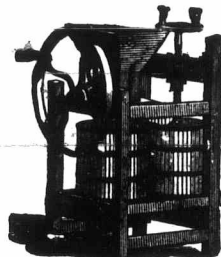
Send for free samples of our Parchment Butter Paper. It is intended for ordinary Butter makers to use. **W.M. DAVIES & CO.,**  
 310-f-OM 24 Queen Street west, Toronto.

**FOR SALE. CHEAP FARMS IN VIRGINIA**

Timber lands and granite quarries. Mild climate. Good markets. Catalogue free. Correspondence solicited.—THE VIRGINIA IMMIGRATION LAND AND IMPROVEMENT CO., PETERSBURG, VA. 310-a-0

**CIDER AND WINE MILLS & PRESSES**

SELLS' PATENT.



Best & Cheapest in the Market

Write for descriptive circular and price list.

Address—  
**L. SELLS & CO'Y,**  
 TORONTO, ONT. 310-a-0

**MEN WANTED—TO SELL FOR THE FONT-HILL nurseries of Canada,** which have been increased to 700 acres; stock choice and complete in all lines; newest specialties; hardy Russian fruits, etc. Liberal pay weekly; can start men to work at once; first-class outfit free. Write without delay for particulars to Stone & Wellington, Nurserymen, Toronto, Ont. 309-f-OM

**FARMERS -- IN -- ONTARIO**

Wishing to settle in Manitoba or the Northwest should write us before purchasing improved farms or wild lands in any part of the province. Cheap farms on easy terms of payment. Write to

**WAUGH & OSBORNE,**  
 Or to 496 Main St., WINNIPEG.  
**JOHN STARK & CO.,**  
 307-y-OM 28 Toronto St., TORONTO.

**ALBERT COLLEGE,**  
 Belleville, Ont.

Over 200 students were received last year. Prepares annually the largest number of matriculants of any college in Canada. Thoroughness marks every department of the college work. Nine courses of study. Will reopen SEPTEMBER the 8th, 1891. Send for calendar. Address  
 308-c-OM **PRINCIPAL DYER, M.A.**

**ADVERTISE IN THE ADVOCATE.**



### NORTHERN Business College

OWEN SOUND, ONTARIO,  
Is the very best place in Canada to get a Thorough Business Education.  
**TAKE A ROUND TRIP** and visit all other Business Colleges and Commercial Departments in Canada, then visit the Northern Business College; examine everything thoroughly. If we fail to produce the most thorough, complete, practical and extensive course of study, the best college premises, and the best and most complete and most suitable furniture and appliances, we will give you a full course FREE. For Circular giving full particulars free, address C. A. FLEMING, Principal. 310-b-O

### EXECUTORS' SALE

BY TENDER OF  
**FANCY STOCK FARM,**  
General Store,  
—AND—  
**MILL PROPERTY.**

Sealed tenders marked "Tenders Robert Hay Estate," addressed to the undersigned solicitors, will be received up to THURSDAY, the 15th DAY of OCTOBER, 1891, for the purchase of all or any of the property belonging to the estate of the late Robert Hay, situate in the Village of New Lowell and Township of Sunnidale, in the County of Simcoe, being:—

#### 1. The Fancy Stock Farm

of the late Robert Hay, containing altogether about 740 acres, more or less, and consisting of the west half of the south half of lot number 8 and the west half of lot number 8 in the first concession of the Township of Sunnidale, that part of lot number 9 in the third concession of the said township, containing 40 acres, more or less, and particularly described in conveyance dated 29th December, 1890, and registered in the Registry Office for the County of Simcoe as number 3,935, and that part of lot number 10 in the third concession of said township, containing 13 1/2 acres, more or less, and particularly described in said conveyance; and lots numbers 7, 8, 9 and 10, and the west half of lot number 11, in the fourth concession of said township, except those portions thereof excepted in said conveyance, and except the portions of said lots 9 and 10 in the third concession, and 8, 9, 10 and 11 in the fourth concession of said township conveyed to Mr. Robt. Paton, and except that part of said lot 10 in the fourth concession, occupied by the flour mill. (On the said farm are situate extensive and valuable farm buildings.)

2. A FLOUR MILL, occupying part of said lot 10 in the fourth concession, which has been recently fitted up as a roller mill and in which a large gristing and shipping business is being done.

3. The stock and agricultural IMPLEMENTS on the said farm, including the large herd of famous thoroughbred Polled-Angus cattle, a large drove of thoroughbred Shropshire-down sheep, and a number of valuable heavy draught horses.

4. THE FOLLOWING LANDS in the Village of New Lowell as shown on registered plans numbers 116 and 326, namely, lots numbers 21, 22, 23, 24, 25 and 26 east of Clarendon street, lots 9 and B south of Cremore street, except that portion of lot B excepted in said conveyance; lots 11, 12, 13, 14 and 15 north of John street, lots 11, 12, 13, 14 and 16 south of John street, lots 5, 6, 7 and 8 south of Palmerston street, and lots D and E east of Mill street. On said lot B is situate a general store in which a profitable business is being done, the annual turn over for some years past having been from \$25,000 to \$30,000.

5. The STOCK-IN-TRADE situate in the said general store, and the good-will of the profitable business heretofore carried on by the said executors therein.

Intending purchasers may tender for all the said property, or for the farm, store or mill property, or for any of the said property separately.

Easy terms of payment of purchase money will be acceptable to the executors and on a substantial payment in cash being made, a mortgage on the property or other security satisfactory to the executors will be accepted by them for the balance of purchase money with interest.

Any person whose tender may be accepted will be required to sign an agreement satisfactory to the undersigned solicitors for the completion of the purchase.

The highest or any tender not necessarily accepted.

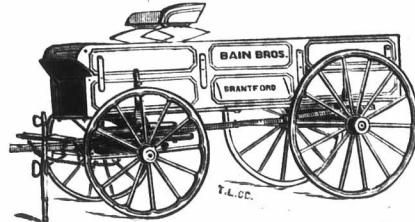
Intending purchasers may examine the property on application to Mr. Peter Paton, New Lowell.

Dated the 15th day of September, 1891.

THOMSON, HENDERSON & BELL,  
Board of Trade Building, Toronto.

Solicitors for the executors of the estate of Robert Hay, deceased. 310-a-O

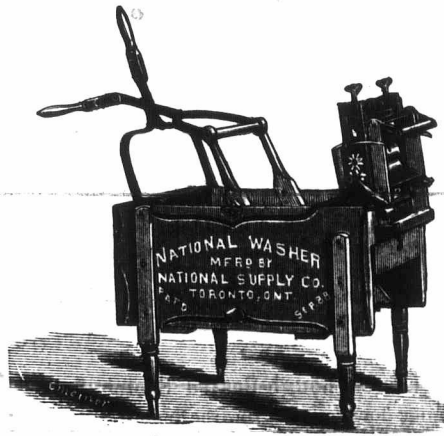
### THE CELEBRATED BAIN BROS.' WAGON



Farmers wanting an easy running & serviceable wagon should be sure and purchase the BAIN BROS. All timber and material used is carefully inspected by ourselves before it is put together.

ADDRESS—  
**BAIN BROS. MANUFACTURING CO.**  
(LIMITED),  
Brantford, - Ont.  
310-k-O

### NATIONAL WASHER



Parties desiring the benefit and comfort derived from a first-class, durable, easily-worked and satisfactory washing machine, avoiding all hand-rubbing and the old-time unpleasantness of washing-day, should TRY the National before purchasing any other. Shipped on trial subject to approval. For information address—  
310-y-OM LENT & COYNE, Ridgetown, Ont.

### ROBINSON'S HAY PRESS



GREAT STRENGTH AND DURABILITY!  
EASY DRAFT ON HORSES!  
LARGE QUANTITY OF WORK!  
**M. MOODY & SONS, - TERREBONNE, QUE.**  
308-d-eot-OM. WRITE FOR PRICES.

### 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,  
301-y 204 Farley Avenue, TORONTO.

### NEW & 2ND ILLUSTRATED CATALOGUE FREE MACHINERY H.W. PETRIE TORONTO, CANADA



THE COMMON-SENSE WAGON RACK is complete in each of its different forms, as Hay Rack, Stock Rack or Wagon Box; quickly and easily adjusted. Satisfaction guaranteed. Circulars & price list free. R. CALDWELL, Tecumseh, Mich. 310-c-OM Please mention this paper.

GOLD MEDAL, PARIS, 1878.



**W. BAKER & Co.'s**  
**Breakfast**  
**Cocoa**  
from which the excess of oil has been removed, 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.**

### 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, Roman Cement, Water Lime, Plaster of Paris, Borax, Whiting, China, Clay, etc. 277-y

### THE PEOPLE'S KNITTING MACHINE.

Retail Price only \$6.00.  
Will knit Stockings, Mitts, Scarfs, Leggings, Fancy-work, and everything required in the household from homespun or factory yarn. Simple and easy to operate. Just the machine every family has long wished for. On receipt of \$2 I will ship machine, threaded up, with full instructions, by express C. O. D. You can pay the balance, \$4, when machine is received. Large commission to agents. Circular and terms free. Safe delivery and satisfaction guaranteed. Address

Mention FARMER'S ADVOCATE when writing.  
**CARDON & GEARHART, Dundas, Ont.**

ADVERTISE IN THE ADVOCATE.



**STOCK GOSSIP.**

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

Mr. Robert Jackson, of Birds Hill, Man., informs us he has recently imported a fine Ayrshire bull calf from the herd of Messrs. W. C. Edwards & Co., North Nation Mills, Que.

Mr. W. H. Acton, of Alexander, breeder of Holstein-Friesian cattle, writes the ADVOCATE thus:—"I purpose going to Ontario for eight or ten pure bred heifers. I am going out of common stock, as pure-bred animals pay much better." You are on the right track friend Acton.

Attention is called to the advertisement, on another page, of the celebrated Hillside herd of Holstein-Friesian cattle, of John A. Frye, Marlboro, Mass. This herd has long been recognized as the leading herd in New England for both milk and butter, and has carried off more prizes than any other.

The well-known Clydesdale stallion, Bounding Willow, imported by Robert Beith & Co., Bowmanville, Ont., and sold by him to Mr. Everest, of the Ridgmere Farm, Reaburn, Man., died about the first of September from indigestion. Bounding Willow was a grand horse in many respects, having amongst other superior points an almost faultless action.

Mr. George Hill, Delaware, who is noted for having a few choice Ayrshire cattle in addition to his Shorthorns and Berks hires, has recently sold Mr. C. A. Brown, Rodney, Ont., four Ayrshires, including two bulls and two heifers, which were intended for Manitoba. One of the heifers, sired by Lorne of the Lea, was quite successful in the show ring; the others were sired by Baron of Parkhill, and were choice specimens of the breed. A few days later two heifers were sold to Messrs. Kains Bros., Byron, Ont.

W. D. Reesor, Elm Park Farm, Markham, Ont., in a recent communication includes the following:—"Since my last writing have sold out of my flock of Shropshires ram lamb to Messrs. Hamner & Sons, of Brantford; two rams to W. H. Beattie, Wilton Grove; seven head to P. E. Lynch, of Cuba, New York; three head to John Y. Smith, same place, and have a large number of enquiries to answer still; also Jersey bull calf to Capt. Rolph, of Markham. My calves and lambs have done exceedingly well this season. I have still a few very fine ram lambs for sale at farmers' prices. I might further say the ADVOCATE leads the list for paying 'adds.'"

Messrs. Prouse & Williamson, Ingersoll, Ont., in writing us under date Sept. 25th state that they are pleased to inform their customers that they have again been successful both at the Toronto Industrial and Western Fairs with their horses. Owing to distemper they had to leave a number of their choicest colts at home. They find Hackneys are in good demand. While attending the Western Fair they sold the Hackney stallion Sunlight to Mr. Robert Anderson, of West Oxford. Mr. Anderson will, no doubt, do well with this class of horse in his district. Breeders should not hesitate to patronize this horse, as the demand for this class is fast increasing.

Messrs. Robert & John A. Turner, Sheep Creek, Alta, include the following in a business letter recently received:—"We have recently sold the two Clydesdale stallions Balgreggan Chief (Imp.) and Lord Derby, also the pure-bred colt Stand Clear, brought into Alberta by us last spring. Lord Derby took 3rd in the Canadian Draught class at our show held at Calgary this spring, and Stand Clear took 2nd in his class. We have Fitzmaurice (7719) [1331] and Balgreggan Hero (8446) [1591], both imported by D. & O. Sorby, Guelph, Ont., as stock horses at present at the Clydesdale Ranch. Fitzmaurice is proving himself a very impressive sire. Amongst his stock there are a lot of promising youngsters from our Clydesdale mares. Balgreggan Hero was winner of first prize at the Provincial Spring Stallion Show, held in Toronto on March 11th and 12th, in his class last spring, his sire being Darnley Hero (5695), by Darnley (222), dam Mary of Balgreggan Mains (3784), by Speculation (2426), by Farmer (280), etc. He also took first at our Spring Stallion Show, held at Calgary on the 30th of April, last spring, for the best imported draught horse any age. We have also at the ranch a pair of imported collies. The name of the dog is Scotland's Star and the bitch Lass of Ardenting. They are from the most fashionable strains, both in color (which is sable and white) and pedigree. Such champions as The Metchely Wonder, Christopher, Charlemagne, Caractacus and Hon. Bittos appearing in both of their pedigrees. The Metchely Wonder is the gr. grand sire of Scotland's Star. He was sold for £530 to Mr. S. Boddington, Birmingham, England. The dam of Scotland's Star was got by Christopher, who was sold for the extraordinary price of £1,000. The Lass of Ardenting's dam is Nanny of Ruthven, winner of several prizes at Glasgow. She is got by Charlemagne who was placed at the head of the kennel club shows from 1880 to 1884, and had a successful career, and many of our best prize-winning collies are related to him. Caractacus is the great grand sire of Lass of Ardenting. He took first at the Kennel Club show held at Liverpool, and was put up by auction with the result that he did not become the property of Mr. Megron, of Manchester, Eng., until £350 had been bid. Mr. Alex. Hay, of Edinburgh, Scotland, has a full brother to Scotland's Star, called Scotland's Pride, at the head of his kennel there. He has taken first at the Kennel Club show held at Manchester this year, and numerous other prizes wherever shown. He got the offer of £160 last year for him and refused it. We intend breeding from him, and parties desiring pups can communicate with us."

**D. CAMPBELL & CO.,**  
**REAL ESTATE**

**And Financial Agents.**  
415 MAIN STREET, - WINNIPEG.

A large number of choice farms for sale on easy terms. City Lots and House Properties at great bargains. 308-y-OM

**A FARMER'S STORE**

OWNED AND CONTROLLED BY  
**FARMERS.**

The GRANGE WHOLESALE SUPPLY COMPANY was organized for the purpose of supplying farmers with all descriptions of goods at the lowest possible figures for CASH. We buy in large quantities for CASH, and all the profits we need is enough to pay our running expenses.

Send for our price list, and then compare our prices with the CREDIT prices at your village store.

We can save you money on almost every class of goods you use, but we would especially draw your attention to these lines: Sugars, teas, and all kinds of groceries; boots and shoes; harness; stoves and scales. We are carrying a very large stock of the above, and having bought in large quantities we obtained these goods at figures that enable us to sell them at prices that will astonish you.

We are able to handle any quantity of good butter and eggs.

When you visit the exhibition call on us at 35 Colborne St., Toronto.

**READ THIS CAREFULLY:**

Mr. Kennedy, Grand President Patrons of Industry, after repeated visits to our warerooms, says: "Mr. Manning you may refer the patrons to me in any way you think best. I believe the Grange Wholesale Supply Company is just the thing the farmers should support." 309-f-OM

**Registered Rough-Coated Scotch Collies.**

Young dogs for sale from the imported sires Turk II., first prize Toronto, and Moonstone, value \$500, and out of the choicest prize-winning bitches money could buy in England. A. BURLAND, Sec. Ont. Collie Club, Grimsby, Ont. 307-y-OM

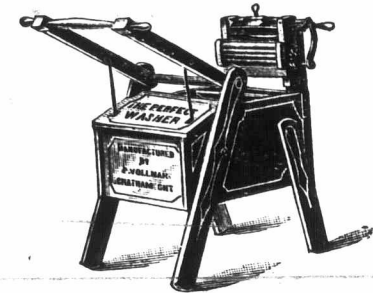
**PURE ANIMAL NON-ACID FERTILIZER.**

Rowlin's Complete, per ton..... \$30 00  
Rowlin's Pure Animal Fertilizer, per ton. 25 00  
Rowlin's Pure Fine Bone Meal, per ton. 25 00

The above fertilizers are made exclusively of animal matter and warranted pure and free from acids. It is not necessary for us to offer prizes in gold to sell our fertilizers, they sell rapidly on their own merits. Why does the Government Analysts pronounce them more valuable than acid-made fertilizers? Because they contain more plant-food. See this year's Bulletin, which will convince you that our fertilizers are the best and purest. I will state briefly the advantages claimed for Pure Animal Non-Acid Fertilizers:—1st. A permanent enricher of the soil, not a mere stimulant. 2nd. It is entirely free from any deleterious acid. 3rd. Every pound of it is of value for fertilizing the soil. 4th. Its physical condition is such that not the slightest difficulty is found in obtaining even distribution on the soil. No clogging or gumming in the drill which is found so troublesome with acid-made fertilizers. 5th. Its price, which in addition to its intrinsic value, must commend it. Use four to five hundred pounds per acre. If your land is very poor use a little more, and you will receive good results. Terms to suit the farmers and gardeners. Send for catalogue and analysis.

**Hamilton Fertilizer and Casings Works,**  
HAMILTON, ONT.  
309-c-OM **F. ROWLIN, Prop.**

**THE PERFECT WASHER**



Has given the greatest satisfaction to all who have used it, combining ease in working with a great saving of time and the least possible wear on the clothes. All machines are warranted for one year, and breaks from imperfect manufacture will be replaced free. Sample machines will be shipped on trial. Testimonials furnished. Address, PHILIP VOLMER, Manufacturer, CHATHAM, ONT. 301-y-OM  
Send three cent stamp for price list and circular.

**FRED. D. COOPER,**  
Real Estate, Insurance and Financial Agent,  
BRANDON, - MANITOBA.

A large number of choice improved farms for sale on easy terms in the fertile districts of Brandon, Souris and Pipestone. All information, advice and assistance cheerfully given to intending settlers. 308-y-OM

**DRAG SAW MACHINE**  
**AND HORSE-POWER.**

**MATTHEW MOODY & SONS**

TERREBONNE, QUE.

For Sawing Logs.

Furnished with Belt, Spike Roller, Truck, and one Saw. 310-a-OM





# W. G. EDWARDS & CO.

IMPORTERS AND BREEDERS.



Pine Grove Stock Farm  
ROCKLAND, ONT.

## SCOTCH SHORTHORNS.

The imported Cruickshank bull **GRANDEUR** is at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved Scotch families.

ALEX. NORRIE, Manager.

## ELMHURST STOCK & DAIRY FARM

CLARENCE, ONT.

Shorthorns, Shropshires and Berkshires

Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke, also milking Shorthorns with imported bull **PIONEER** at the head of the herd.

HENRY SMITH, Manager.

Laurentian Stock AND Dairy Farm.

North Nation Mills, P. Q.

Ayrshires, Jerseys and Berkshires.

Imported **EMPEROR** at the head of a grand lot of Imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and Imported Berkshires.

GEORGE CARSON, Manager. 303-y-OM



## Imported Clydesdale Stallions and Mares for Sale.

Highest Prize Winners in the Leading Shows of Scotland and Canada,

AND THE GET OF FAMOUS SIRES

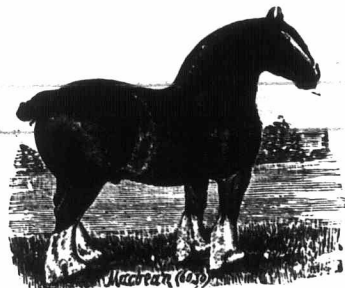
Such as Lord Erskine, Darnley, Old Times, McCammon, Prince Lawrence, Lord Hopton, Bold Magee, Sir Wyndham, Good Hope and Fireaway.

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. 289-y



## IMPORTED AND REGISTERED— CLYDESDALE AND HACKNEY STALLIONS AND MARES

CONSTANTLY ON HAND, AND FOR SALE AT REASONABLE PRICES

Our last importations comprise 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 (673). Also a few choice **SHETLAND PONIES**. Correspondence solicited, and visitors always welcome.

## GRAHAM BROTHERS

Twenty-five miles east of Toronto, on the C. P. R. 305-OM CLAREMONT ONT.

## SHROPSHIRE and YORKSHIRE RAMS, EWES AND LAMBS.

COME AND SELECT FOR YOURSELF BEFORE THE BEST ARE GONE.

Also, a Litter of S. Spencer Yorkshires.

309 b-O-M.

R. GIBSON, DELAWARE.

SECTIONAL VIEW OF WHITE SELF-CONTAINED RETURN TUBE BOILER,  
SHOWING DRY PIPE.



This style of boiler is used with all our threshing engines, enabling our customers to produce abundance of steam with long, rough, cheap wood. We utilize water space surrounding and at back end of fire box in connection with our improved internal straw burner.

Manufactured only by **GEORGE WHITE & SONS**, London, Ont.

## THRESHING MACHINES & HORSE-POWERS (ONE, TWO AND THREE-HORSE)



Guaranteed to be "the best" Tread Horse-power Threshing Machine made, and takes the lead wherever introduced. Agents wanted.  
JOHN LARMONTH & CO., Manufacturers,  
Point St. Charles, Montreal, Que.  
E. G. PRIOR & CO., Agents, Victoria, B. C.; W. F. BURDITT & CO., St. John, N. B.; G. A. LEBARON, Agent, Sherbrooke, Que. 306-f-OM

## HALLADAY STANDARD WINDMILLS

For supplying constantly pure and fresh water for the following purposes, viz.:

- Pumping Water For Stock
- Farm Buildings, Mansions, Villa Residences, Public Institutions, Gardens, Green Houses, Town & Village Water-works.
- Hotels, Colleges, Pumping for Railway Stations, Fire Protection, Irrigation, Tanneries, Breweries, Sewage, Mines, Draining Low Lands.
- Geared Mills for chaff cutting, root pulping, threshing, sawing wood, grinding corn, etc., etc.

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  
**ONTARIO PUMP CO'Y,**  
TORONTO, ONT. 301 ff-OM

## THE TEMPERANCE AND GENERAL LIFE : ASSURANCE : COMPANY

Offers the most desirable policies farmers can possibly secure. Speaking of its ordinary life policy, a prominent agent of one of the largest and best of the American companies truthfully said: "It is the safest and fairest policy I have ever seen." Every farmer who can possibly get it, should protect his home by having one of these policies for such an amount as will save his family from embarrassment, in case of his premature death.

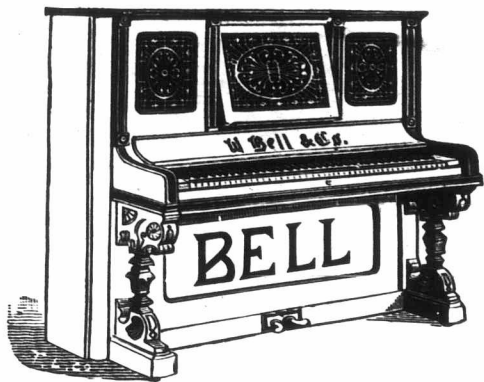
**HON. C. W. ROSS,** President.  
**H. SUTHERLAND,** Manager.  
302-y-OM



**HARTSHORN'S SELF-ACTING SHADE-ROLLERS**  
 Beware of Imitations.  
 NOTICE  
 AUTOGRAPH OF STEWART HARTSHORN AND GET THE GENUINE LABEL  
 HARTSHORN

**SUGDEN'S COMPOUND TAR PILLS**  
 CURE  
 BRONCHITIS, ASTHMA, COLDS,  
 HOARSENESS, COUGHS, ETC.  
 Warranted purely vegetable. Will not act on the bowels.

Sent post-paid on receipt of price. Price, \$1.00 per box, 100 Pills.  
 N. W. SUGDEN, Prop.,  
 120 Lisgar-St., WINNIPEG, MAN.  
 Agents—J. H. NAYSMITH & Co., Stratford, Ont.  
 305-y-0



Pianos, Reed Organs & Church Pipe Organs

THE STANDARD INSTRUMENTS OF THE WORLD.

Send for Catalogue.

BELL ORGAN AND PIANO CO., Guelph, Ont.  
 309-y-0



THE MORNING GLORY CREAMERY  
**CHURN.**

The cheapest, quickest and best in the market, having a hot and cold water tank conveniently arranged for tempering the cream, which enables the operator to produce the best quality of butter. County rights for sale. Testimonials free. Apply to Jarvis Churn Company, Jarvis, Ont. 302-1f

**GRANITE AND MARBLE MONUMENTS, ETC.**

NEW AND BEAUTIFUL DESIGNS.

Prices reduced from 10 to 20 per cent. No firm—especially those employing agents—can possibly compete with us. Quick returns and small margin for profits. Intending purchasers will save the above percentage by calling, judging and selecting for themselves. 309-c-0M

J. W. SMYTH & SON,  
 On cor. King and Clarence Sts., London, Ont.

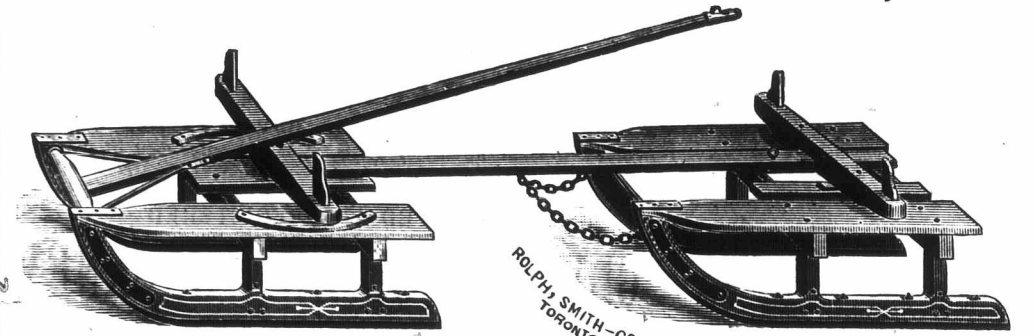
**JERSEYS FOR SALE**

Twenty-five Daughters of Nell's JOHN BULL, A. J. C. C., at prices to suit the times. All are registered or eligible to register in A. J. C. C. One or two years old. This is a grand lot out of business cows. Their sire is grandson of Ida of St. L., the largest milking Jersey in the world, 67 lbs. in one day, and made 30 lbs. 2 1/4 ozs. butter in seven days. Her full sister, Allie of St. L., is second largest milking Jersey, 62 1/2 lbs. in one day, and made 26 lbs. 12 ozs. butter in one week. His sire was the famous prize-winner, "Canada's John Bull." Nell's "John Bull," as well as being richly bred in milk and butter strains, is individually good, having won at last Toronto Fair first prize in his class and sweepstakes silver medal as best bull any age, in a class of good ones. At Hamilton he won diploma as best bull any age, and diploma as best bull with four of his get. We have about sixty head of Welsh Blood Ponies, all ages. These ponies are superior to any other breed for women or children, being free drivers and gentle. We have taken first wherever they were shown. Prospective buyers would do well to visit our herd and learn prices. Visitors will be met at station upon giving one day's notice. 307-d-0M

GEO. SMITH & SON, Grimsby, Ont.

<b>GLENHYRST.</b> 50 acres, bordering on the City of Brantford. JAMES MAXWELL, Supt. Shropshire Sheep. Shetland Ponies. Apples—(in quantity)—Plums. Registered Stock, all ages, for sale. Three grand modernized stock farms under one management. JOSEPH STRATFORD, PROP., [309-y-0M]	<b>OAKWOOD FARM.</b> 100 acres, bordering on the City of Brantford. GEORGE WALTER, Supt. Have on the farm a modern wooden Silo. Capacity 250 tons. Dorset-Horned Sheep. Jerseys, A. J. C. C. Holsteins (Royal Aargie family). Advance Register. Chester White Pigs.	<b>CEDARS FARM.</b> 175 acres, eleven miles from City of Brantford. ROBERT WALKER, Supt. Oxford-down Sheep. Shorthorn Cattle. Medium Yorkshire Pigs.
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------

**The Bain Wagon Co., Woodstock, Ont.**



FOR THIS SEASON OUR SLEIGH IS STILL UP TO ITS FORMER HIGH STANDARD. MADE FROM THE BEST SELECTED STOCK.

**WE MAKE ALL KINDS FARM, FREIGHT OR DELIVERY WAGONS**

Any size of arm or width of tire. The Studebaker Arm and Truss Rod used on all Wagons. We purchase them from the South Bend factory, and we have not had a broken arm reported to us this season. Write for prices. WE WON'T BE UNDERSOLD.

**BAIN WAGON CO'Y.**

**The Razor Steel, Secret Temper, Cross-Cut Saw**



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A Saw to cut fast "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves. These Saws are elliptic ground thin back, requiring less set than any Saws now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good ask your merchant to let you take them both home, and try them and keep the one you like best.

Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a Saw for one dollar less, and lose 25 cts. per day in labor. Your saw must hold a keen edge to do a large day's work.

Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

MANUFACTURED ONLY BY  
**SHURLY & DIETRICH,**  
 GALT, ONTARIO.

**LAND FOR EVERYBODY.**

FREE GRANTS OF GOVERNMENT LAND.

CHEAP RAILWAY LANDS FOR SALE ON EASY TERMS.

GOOD SOIL!

PURE WATER!

AMPLE FUEL!

The construction of the Calgary & Edmonton Railway, and the Qu'Appelle, Long Lake and Saskatchewan Ry, has opened up for settlement two new districts of magnificent farming land, viz., that between the North and South Saskatchewan Rivers, and that between Calgary and Red Deer. Full information concerning these districts, maps, pamphlets, etc., free. Apply to

**OSLER, HAMMOND & NANTON,**

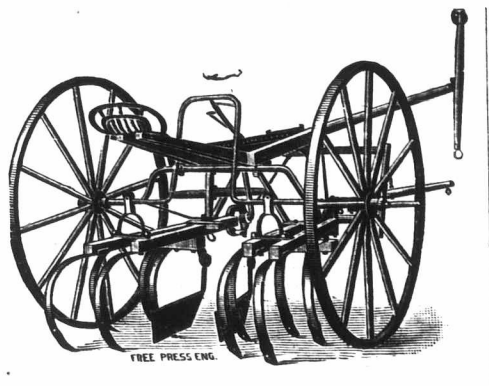
LAND OFFICE, 381 Main Street, WINNIPEG.

Calgary and Edmonton Railway, Qu'Appelle, Long Lake and Saskatchewan Railway Company.

309-y-0.

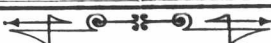


# AMERICAN HARROW COMPANY



DETROIT, MICH.,  
E. U. de A.

WINDSOR, ONT.,  
Canada.



**AMERICAN SPRING TOOTH  
WHEEL = HARROW = CULTIVATORS  
SEEDERS AND BEAN HARVESTERS.**

**FOUR IMPLEMENTS COMBINED IN ONE.**

Each of these machines, with the broadcast seeder attachment, can be used to sow all kinds of small grain and grass seed. By removing the seeder attachment, each machine can be changed into a complete pulverizer, and also a complete cultivator for all row crops. An entirely new and most valuable improvement is a shovel point made especially for CUTTING THISTLES. Canadian farmers in particular are delighted with it.

309-b-OM

**WE HAVE A LARGE SEEDER, 13 FEET WIDE, THOROUGHLY ADAPTED FOR MANITOBA AND THE NORTHWEST.**

## 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 1890 there were under crop 1,082,794 acres.	In 1890 there were under wheat 746,058 acres.
In 1891 there were under crop 1,349,781 acres.	In 1891 there were under wheat 916,664 acres.
Increase . . . . . 266,987 acres.	Increase . . . . . 170,606 acres.

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** for sale or leasing, from private individuals and corporations, at low prices, and on easy terms.

**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 & 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  
**THE MANITOBA IMMIGRATION AGENCY,**  
30 York St., TORONTO.



# HARNNESS!

**\$10 SINGLE HARNNESS.**—We offer to every person sending us \$10 in a registered letter a set of single-strap, full-nickel Harnness, with box loops, handsome bridle and very stylish looking back-band.

**\$13 HARNNESS.**—This set is very handsome, has doubled and stitched lugs, heavy strap breast collar, trimmed in either nickel or dark mountings.

**\$15 HARNNESS.**—At \$15 we offer a set of Harnness that has been sold time and again by Saddlers at \$25. It is the very best value of any harnness we have.

Our small margin, quick sale and spot cash system does the work. Hundreds of close, spot cash buyers are taking advantage of our remarkably low prices. Our price lists, which are sent free to all who ask for one, contain more accurate information concerning our goods.

**ROAD CARTS** at \$16 seem remarkably low in price, and so they are. We can send you for only \$16 a Road Cart that will surprise you. It is equally as good a cart as was ever sold for \$30 or \$32. Only by manufacturing in very large quantities and selling direct to the public for spot cash can we do it.

**SCALES**, all properly stamped and inspected, at the following prices:—

4 lb. Butter Scale, only	\$ 2.25
10 lb. " " " "	3.00
24 lb. Union " " "	5.00
1000 lb. Platform " " "	12.50
2000 lb. " " " "	25.00

Every farmer should have a set of Scales in his barn, and by comparing our prices with others he will readily see that we are headquarters in Canada for these goods. We are not afraid to show our prices, for we know they cannot be beaten. Our goods are all placed F. O. B. Hamilton, and the above prices include boxing. Our terms are cash with the order in every instance. On receipt of \$2 in registered letter, we will send by mail to your nearest post office, postage prepaid, a set of 6 auger bits and good, strong brace. Send your address for our catalogue.

**S. MILLS & CO.**

24 JOHN STREET SOUTH,

HAMILTON, 307-y-OM ONTARIO.

**\$500 A YEAR  
FOR 20 YEARS.**

FOR  
23  
CENTS  
A  
WEEK.

The plans of insurance operated by the Manufacturers' Life are universally admitted to be not only the most popular but also the most liberal and comprehensive now offered to the public. For a premium not very much larger than is charged for a \$5,000 policy, where the entire insurance is to be paid in one sum down, this Company will give a policy of \$10,000, payable in twenty annual instalments of \$500 each. That's the instalment plan. By insuring on the ten-twenty plan a man may carry \$1,000 for the insignificant sum of twenty three cents a week!

No other company in the world can give cheaper insurance than this.

**THE MANUFACTURERS' LIFE INSURANCE CO.,**  
COR. YONGE & COLBORNE STS., TORONTO.  
307-y-OM

## FARMERS!

If you want the best value for your money. If you want an article that will never disappoint you.

If you want thoroughly good and healthy Baking Powder, into which no injurious ingredient is ever permitted to enter.

BUY ONLY THE GENUINE



REMEMBER THAT—

**McLAREN'S COOK'S FRIEND**

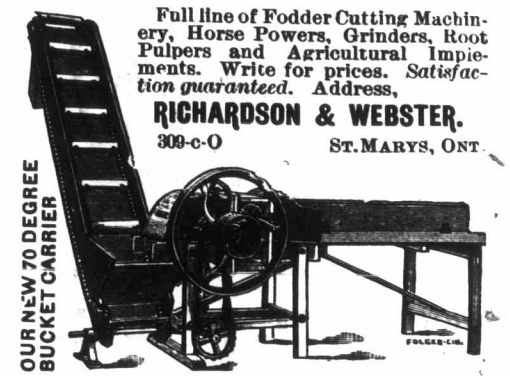
IS THE ONLY GENUINE.

THE BEST GROCERS SELL IT.

308-y-OM

## "THE MONARCH" Ensilage Cutter

(carries any length, angle or direct).



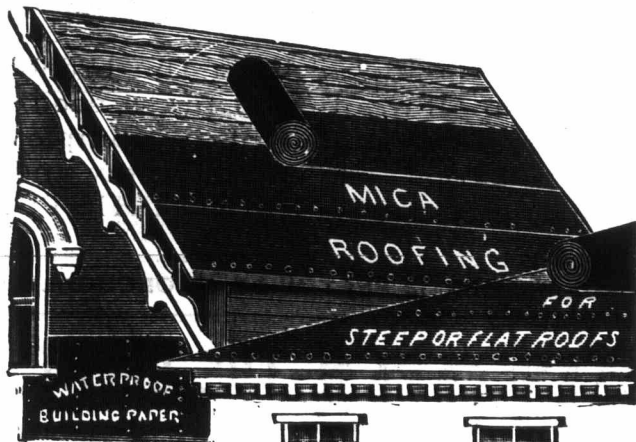
Full line of Fodder Cutting Machinery, Horse Powers, Grinders, Root Pulpers and Agricultural Implements. Write for prices. Satisfaction guaranteed. Address, **RICHARDSON & WEBSTER,** 308-c-O ST. MARYS, ONT.

OUR NEW TO DEGREE BUCKET CARRIER

## 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 2 1/2c. 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.**

308-y-OM

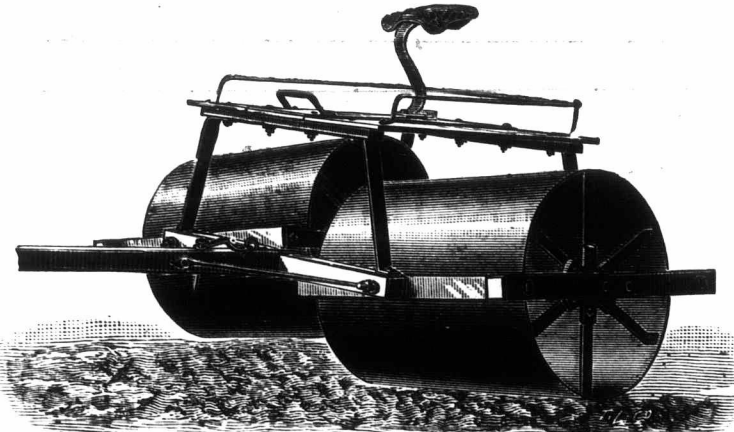
Office—108 James Street North, HAMILTON, ONT.

## THE DALE PIVOTED LAND ROLLER

(Patented.)

A STEEL ROLLER, THE DRUMS OF WHICH OSCILLATE ON PIVOTS AND ADAPT THEMSELVES TO THE UNEVENNESS OF THE GROUND.

Its points of advantage are too many to enumerate. Some of them are:



The bearings are the only wearing parts and are guaranteed to last from Ten to Fifteen Years, and can be replaced at a nominal cost.

It rolls all the ground, no matter how rough. There is no axle shaft, no strain, and consequently no wear. It is easily rolled between the drums.

THE DEMAND IS STEADILY INCREASING. IT IS UNANIMOUSLY RECOMMENDED BY THOSE FARMERS WHO HAVE USED IT. Orders are now being booked for the fall trade. Description and price furnished on application to.

**T. T. COLEMAN,** SOLE MANUFACTURER, SEAFORTH.  
307-y-OM