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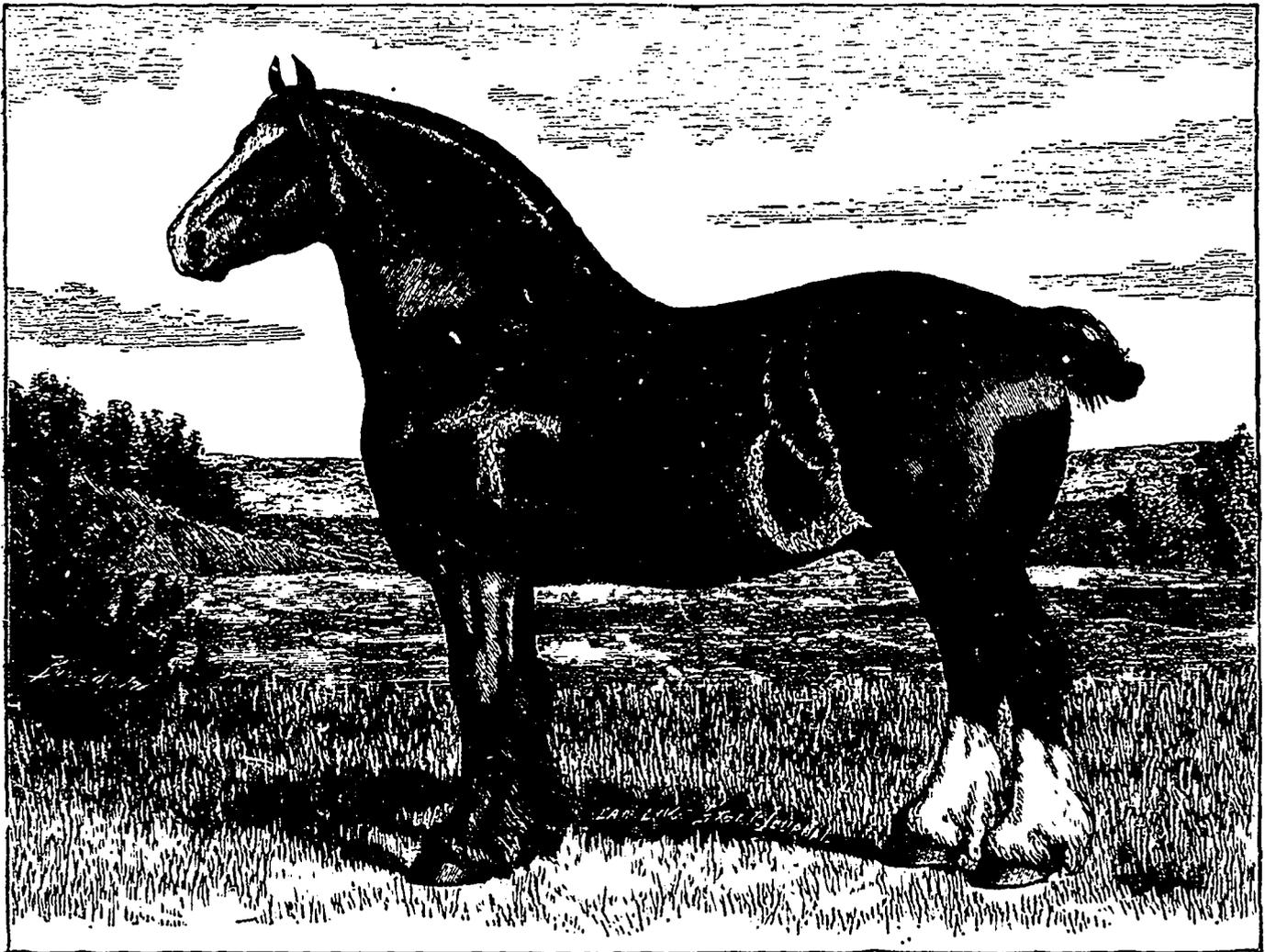
THE CANADIAN LIVE-STOCK AND FARM JOURNAL

DEVOTED TO THE INTERESTS OF THE STOCK-RAISERS AND FARMERS OF CANADA.

VOL. V.

HAMILTON, CANADA, MARCH, 1888.

No. 53



THE CLYDESDALE STALLION PRINCE OF AIRS (4641) [530]

Imported by and the property of John Fothergill & Son, Burlington, Ont.

Prince of Airs (4641) [530].

This very beautiful Clydesdale stallion was imported by the Messrs. John Fothergill & Son in the summer of 1887, and is one of the two Clyde stock horses kept by this firm at Balsam Lodge. He was foaled May 4, 1885, and bred by Mr. R. Webster, Airs, New Galloway, Scotland. In color he is a dark bay, and is by the sire Good Hope (2146). His dam Maggie of Airs (3092) is by Lorne (499), by Large Jock (444). His g. sire is the famous old Darnley (222), a horse that has probably left more good stock and won more prizes than any other horse ever owned in Scotland, unless it be Macgregor 1487 and Prince of Wales (673).

Prince of Airs is a very massive horse, on somewhat shorter limbs than those represented in the sketch. He has a nice clean-cut head, wide between the eyes, and nostrils well expanded. His neck is rightly set on a pair of powerful shoulders, his arm is strong, and his limbs sufficiently curved, with a large amount of soft, pliable hair. His barrel is round, back medium and quarter good. He has proved himself a first-class stock horse in the old country. In 1886 he won first prize and £100 premium for Kirkcudbright, first at Kilmarnock and third at the High-

land Agricultural Society's show held at Dumfries. In 1887 he won the £100 premium for Locherbie, and came third at the Royal Agricultural Society's show held at Newcastle. Last autumn he was first at the Great Central, Hamilton, and at several other shows. He is certainly one of the best horses ever brought into the section of country where he is owned, and will no doubt prove of much service to that locality.

An imported English cob stallion is also kept at Balsam Lodge, where he has been one season in service with the most satisfactory results.

Progression is the order of the day at Balsam Lodge. Here it was that the third prize went in the sweepstakes prize farm competition of 1887, and the gold medal in the group competition of 1888 also came to Balsam Lodge. For many years the sweepstakes Shorthorn bull of Ontario was owned here, and now, one of the best Clyde stallions in the Province.

The Rising Tide.

Farmers are at last making an effort to look after themselves. They are beginning to conclude that they have been long enough playing the part of Esau, the strong ass couching down between burdens, and give evidence of the conviction that they should make an effort to rise. The Institutes are extending,

and the work they are taking up is one of great magnitude. At the meeting of the Central Farmers' Institute recently held in Toronto, such questions as the securing of a building in that city to accommodate the farmers at their winter exhibitions and various annual meetings, the amending of the statute labor law, the conducting of the Institutes, and the experiments that might with most profit be conducted at the Experimental Farm, were ably discussed, but the findings cannot be given until our next issue.

The number of the institutes at the present time is fifty-nine, but several electoral districts are yet without one. These are Addington, Algoma East, Algoma West, Carleton, Cornwall and Stormont, Essex North, Frontenac, Hastings West, East and North, Lambton West, Middlesex West, Monk, Muskoka, Parry Sound, Perth North, Perth South, Prescott, Renfrew South, Russell, Simcoe Centre, Waterloo North, Welland, Wellington North and West York.

The other fifty-nine Institutes are waiting for these districts to organize. They want them to come up and help them in the battle against the mighty. The farmers' end of the double tree of equal chances is so far back that it will take a strong team from each electoral district to pull it even. When Ontario has an Institute in each electoral district, then we shall look for co-organization in other counties.

Canadian Live-Stock & Farm Journal

PUBLISHED MONTHLY BY

THE STOCK JOURNAL COMPANY,

48 John Street South, Hamilton, Ont.

Terms, \$1.00 per Annum in Advance.

THOMAS SHAW, RIVERSIDE FARM, EDITOR.

To Subscribers. Subscription price, \$1.00 per annum in advance. Single copies, 10 cents each; sample copies free. No names will be removed from our subscription list when in arrears and without we receive instructions to that effect. Those in arrears will be charged \$1.25.

Clubs.—Any person is at liberty to form clubs. Clubs of five copies to any address, for one year, \$4.00. Clubs of ten copies to any address, \$7.50.

To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines makes one inch); for three months, 5 cents per line each insertion, for six months, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines \$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c. Contracts broken by insolvency or otherwise will revert to the usual rate of 18 cents per line per insertion.

To Correspondents.—All communications intended for publication in the JOURNAL should reach us by the 20th of each month—sooner if possible. We do not hold ourselves responsible for the opinions of correspondents.

Remittances may be made in registered letter at our risk. The receipt of the JOURNAL will be sufficient evidence to subscribers that their remittances have been received.

All communications to be addressed STOCK JOURNAL Co., 48 John Street South, Hamilton, Ont.

HAMILTON, CANADA, MARCH, 1888.

MR. E. JEFFREY, Olinda, writes. "Don't you think if you would offer the boys who would get you enough subscribers some kind of pure-bred stock, that it would be drawing them in the proper channel?" To this we reply we think the suggestion a good one and will arrange as far as possible to meet the wishes of the friends of the JOURNAL in this particular. Any person desiring to secure any particular kind of pure-bred stock in this way may communicate with us. We may here also call attention to the premium offers which were published in the Nov. and Dec. issues of the JOURNAL. Those who have succeeded in obtaining these premiums are well satisfied, and, we are glad to hear, feel remunerated for their trouble. To those who have been working for any of these premiums, and have not yet secured a sufficient number of subscribers to entitle them to the same, we will extend the time to a reasonable length, providing they communicate with us. So far the farm bells and books have been the favorite premiums.

THE evils incident to over stocking are numerous. When a farm becomes over stocked there is first a scarcity of feed, followed by poverty of condition in the stock, succeeded by a low estimate of its value on the part of visitors and those who would be purchasers under other conditions. Sometimes food has to be purchased when it is dear, which seriously cuts down the returns, and in all such instances the portion of the stock that should be marketed must be carried over a prolonged period or sacrificed at slaughter prices. The man who carries too heavy a stock is like the ship carrying too heavy a cargo. She loses time on the voyage and gets into the port too late for the best market. It is much better to err in the opposite extreme, for it is seldom that one cannot add to his flocks and herds when such addition is required. We admit there are times when the best of calculations will fail. Seasons will come when even summer feed will not grow, much less that for winter. At

such a time even moderate stocking will prove burdensome in carrying it, but generally there may be harmony between the needs of the stock and the supplies of the fodder. Stock-keeping is a business that requires the nicest discrimination and the most careful forethought.

THE person who is completely content with past progress and present attainment in any line is a fit subject for commiseration. Notwithstanding the heights above they will not be scaled by him, and notwithstanding the depths below, his line will never fathom them. He has entered upon the first stage of a fossilism that will soon end in complete petrification. The stockman and the farmer should never feel that they have got as far as they can go, for then they are trusting in a delusion. Perfection in grain-growing and stock-keeping have no more been attained than perfection in any other line. We sometimes conclude that no advance is to be made in the art of poetry, and yet we may be on the threshold of an era when the magic of flowing numbers not yet in existence shall captivate the heart of the millions; when a flood of poetic light shall shine upon the nations with a brilliancy so radiant that in comparison with it the brightest poetic era of the past will only be dim shadow. Thus it is that we can see a future radiant with hope for the agriculture of Canada all along the line, for in this it can be said of no one that he has attained. Better stock, better buildings, better feed, better methods are before us, and better men to lay hold upon these. Who will be foremost in this ennobling contest?

HE sat in a warm room on a cold winter day and picked up a beautiful apple, with intent to eat it, but on turning it around in his hand discovered a decayed spot, which had to be cut out first. That miserable decayed spot spoiled the beauty of the whole apple. We saw in that a type of one class of farmers whose practice is in many respects praiseworthy, but its beauty is all marred by a decayed spot which has to be clean cut away before their methods are worthy of imitation in their entirety. We refer to the miserable class of stock which they keep. It may be their buildings are good, their fences strong, their underdrains are numerous laid, their system of grain-growing is admirable, but their stock resembles that of very primitive types in primitive days. Before they can be looked upon as sound to the core in their practice, the decayed spot must be cut away, and a better system introduced. This defect is, however, no more serious nor blameworthy than the attempt to keep better stock in conjunction with a slovenly system of farming. When good farming and its usual adjunct, stock-keeping on a proper basis go hand in hand, there is a symmetry about it that is very attractive. Young men who wish to learn farming may with profit cluster about such a place as bees about a hive, but they should always steer wide of a farmer or stockman where there is not that relative adjustment which is the outcome of good all-round farming.

"READING the JOURNAL has made me somewhat ashamed of the kind of stock I have been keeping, and of my methods of keeping them." This is the acknowledgment of a recent reader of the same. It does not matter who, nor where. To us it is a pleasing acknowledgment, as much so as the first fruits of harvest to the husbandman. We hope this honest man is but the spokesman for thousands. A man can never become ashamed of past methods without the desire and the effort to adopt better ones. There are in Canada to day tens and hundreds of thousands of

stock unimproved, of which the owners are not in the slightest degree ashamed, and so long as this can be said with truth, there is no hope of their improvement. How is the mighty revolution of opinion to be brought about? By agricultural papers in part, but not those who plead the cause of scrub stock, by the ordinary press with an agricultural department, by means of the Farmers' Institutes and well conducted exhibitions, but more than all by the agricultural literature in our schools, when we get it. Each of these will form a factor in the great wind about to pass over the country, before which there will be a gradual subsidence of the waves of ignorance as to best methods, which have so long submerged the practice of our farmers. The tops of the mountains are already seen, and the dove has come back with the olive leaf in her mouth. It is pleasant to contemplate the introduction on every hand of improved systems amongst all our farmers, but it is pleasanter still to realize that in hastening the advent of this brighter day, every reader of the JOURNAL may take a part. It is for them to say in what way they shall most effectually do it.

Sheep Associations for Canada.

In the last issue of the JOURNAL, p. 43, is found a letter on this subject from the pen of Mr. John Jackson, the distinguished breeder of Southdown sheep at Woodside, Abingdon. In that letter Mr. Jackson calls attention to the wisdom of establishing associations for the different breeds of sheep affiliated in some way with a sheep-breeders' association for the Dominion, and of records separately or in one volume. We promised in a foot-note to that article to give our views in the March issue, and we now proceed to redeem that promise.

Should we have a sheep breeders' association for the Province, and if so, when? This is a very important question, and requires a most careful answer. It can be better answered when we consider the work that such an organization would be expected to do. The Wool-Growers' Association of the United States are vigorously opposing any reduction of the tariff on wool because the United States imports wool, and they are guarding the interests of producers there. We suppose no one will object that their efforts in this direction are not legitimate. Now it so happens that Canada exports wool to the United States, and by so doing loses 10 cents per pound on every pound sent over, in consequence of the tariff.

In 1886 out of a total clip of 6,238,347 lbs., 1,287,984 lbs. were sent to that country. The amount paid as duty was \$128,798. Again, the number of sheep exported to the same country in 1885 and 1886 was 588,163 head, valued at \$1,603,375, nearly all of which were for mutton purposes, and on which a duty of 20 per cent, or \$320,675 was paid. The half of this sum, \$160,338, the amount for one year, + \$128,798, the duty on wool, gives \$289,136 lost to our sheep-growers in that one market in 1886, a sum that would in all probability pay the entire cost of a sheep-growers' association for one hundred years. Now if a sheep-growers' association could bring about a removal of those restrictions it would certainly be a paying arrangement. It may be objected that it does not rest with us to remove the tariff referred to. While that is true, a sheep breeders' association might ask the same of our Government, and they in turn might ask it of the Government of the United States. Without effort we will get no better terms.

The sheep industry is also greatly hampered in this country by the depredation of dogs. To so great an extent does this prevail in the neighborhood of towns and cities, that it is next to impossible to grow sheep

there with profit, or even in the neighborhood of large villages. Many, particularly in the outskirts of these places, who cannot well provide for their children, persist in keeping a worthless cur which generally has to forage for himself. Who can condemn the starved creature's preference for fresh mutton to starvation by degrees? Legislation has been attempted with a view to remedy the evil, but with only indifferent success. If a sheep-breeders' association can prove the means of securing legislation that will prove effective in this direction, then we want one.

There may be an association for each of the breeds sufficiently represented to sustain one efficiently. Some of them may not be strong enough for this, but others of them are. We mentioned that we would advocate the organizing of a Shropshire Down association, for the reason amongst others, that with this breed in Canada it is now springtide, not because they are as yet the most numerous represented. Many reasons may be assigned as to why it would be wise to form these associations, but the expression of desire for this must emanate with the breeders themselves before any effective organizing can be done. The purity of the breed may be secured by the adoption of a scale of points, and fixing upon a registration standard, negotiating as to the manner of offering prizes and selecting judges, arranging for public sales and adopting other means intended to advance the interests of the breed. We want these organizations.

We scarcely think it practicable to have a register for each of the breeds published in one volume and under the direction of the one association. Our fears arise largely from the known frailty of our natures. Most men are selfish, and some are naturally jealous. The former would beget the desire to have undue prominence given to a certain breed by its advocates, and the latter would engender endless strifes on the part of those representing the weaker interests.

While we favor each of the breeds having its own record, we do not as yet advocate the publishing of any yearly volumes until there is a sufficient probable demand for them to justify such a step. A standard could be fixed upon and a record of pedigrees kept by the Agricultural and Arts Association in the same manner as the Berkshire pedigrees are recorded at the present time.

There are some who favor registration in the American books altogether, but it would certainly be more convenient to our breeders to record in a register of our own with a standard similar to that of the Americans.

The whole subject is comparatively new in the arena of discussion. The pros and cons thereof would be none the worse for a thorough sifting, and we hope those interested will let us hear from them. Associations without work in proportion to the expense of maintaining them are only in the way. On the other hand no interest can become a great power in the land without their aid.

The Annual Report of the Industrial Exhibition.

The report of the Industrial Exhibition Association of Toronto for 1887 is even more encouraging than its predecessors. Although some \$40,000 was expended by the city and the association during the past year in the erection of new buildings and the enlargement and improvement of existing ones, there was still a want of accommodation, no less than 200 horses having to be sent out of the grounds to lodgings. The association complains that it cannot erect any further accommodation in this line until the City Council furnishes additional grounds. The Council

will surely attend to this, seeing that the exhibition brings such crowds to the city every season, who generally go home with purses much depleted.

The aggregate attendance at the exhibition was over 210,000, and the largest number in any one day nearly 60,000. The exhibition in point of attendance is now considered only second to that of St. Louis, on the continent, and in point of management first. While the admission fees in 1886 were \$26,960.83, in 1887 they were \$52,785.55. The profits made by the association are represented by its assets, which at the present date are \$85,120 over and above all liabilities. The bank debt, which in 1885 was \$25,649, is now but \$10,178. The indefatigable secretary and manager, Mr. H. J. Hill, is already working like a beaver in making arrangements for what the directors intend shall be one of the best exhibitions ever held by them in Toronto.

Guernseys Coming Westward.

We have just learned that Mr. Wm. Davies, of Toronto, has purchased the nucleus of a herd of Guernseys from the Hon. J. C. Abbott, Montreal, whose herd is, so far as we can learn, the source whence all the Guernsey herds in Canada have been drawn, except the few specimens at the Ontario Agricultural College, Guelph. The purchase of Mr. Davies comprises five cows and the splendid bull Presto of Preel 2nd, for some time past at the head of Mr. Abbott's herd. He is out of an imported cow and sired by the celebrated Presto of Preel, imported by Mr. Abbot from his native Guernsey home, and said to be one of the finest, if not the finest bull that ever left the island. He is the winner of many 1st prizes.

Mr. Davies informs us, that having decided to go into dairying, he was led to choose the Guernseys in preference to the Jerseys, of which he also thinks highly, by observing that many of the most enthusiastic of the Guernsey breeders had at one time been breeders of Jerseys. This confirmed the conclusion reached in a different way, that is, by a thorough investigation of the comparative merits of the two herds by what could be gleaned from books and from other sources of information, such as correspondence with breeders, both in England and the United States.

This conclusion is in agreement with the following, which first appeared in the *Breeders' Gazette*, of Chicago:

"Discussing the relative merits of Jersey and Guernsey cattle, a correspondent maintains that, so far as his knowledge extends in the United States, all of the Guernsey breeders of to-day have at some former time been Jersey breeders, and changed because they preferred the Guernseys to the Jerseys; and while they do not choose to throw out anything against the Jerseys (in fact, many have still the Jerseys), they show their preference for the Guernseys by increasing their numbers and gradually decreasing the Jerseys. And so cherished are the Guernseys that he much doubted if one could purchase in America a really choice herd of the breed except by paying fabulous prices. The Guernsey cow is a good, strong farmer's cow weighing usually from 900 lbs. to 1,200 lbs. He had one weighing 1,400 lbs. and over. The Guernseys have fine bone and muscle. The calves are of good size and make good veal; they have hardy constitutions, are good feeders, and will bear forcing when butter brings remunerative prices. They have a beautiful yellow skin, consequently they produce yellow butter even in winter. Their butter needs no artificial coloring at any season of the year, relieving one's conscience from the burden of deceit. They have a quiet, even disposition. Their teats are of good size; they give a good flow of milk nearly to calving time, and frequently they cannot be dried off even for the good of the cow or the calf they are carrying. Their butter product is equal to, if not better than, any cow that the writer has had anything to do with."

The Guernsey males make a most excellent cross upon native cattle, as has been so happily demonstrated by Mr. S. A. Fisher, M. P., of Knowlton, P. Q., and others.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Shire Horse.

(Second Paper.)

The moment of birth is a most critical time, many foals being lost through want of attention. If the lungs do not act promptly, efforts should be made to excite them by blowing into the nostrils and mouth, and by rubbing the body to promote circulation. If respiration increases but slowly, a few teaspoonfuls of brandy and water will aid in strengthening its vitality. As soon as the mare has recovered from the shock of foaling she should be allowed to lick and dry her colt. If, as is occasionally the case, she refuses, a little salt sprinkled on the back of the colt will generally induce her to do so. If she takes kindly to the colt, it is best to leave them to themselves. Harm is often done in trying to get the colt to suck too soon; if left alone it will almost invariably suck of its own accord. I have known men to spend hours in the middle of the night trying to get a colt to suckle, and after leaving in despair find the mare in the morning sucked dry. Foals should receive a good deal of attention the first few days of their existence. More foals are perhaps lost at this period than at any other time. If they get over the first three days they will generally do all right. Constipation of the bowels is one of the most frequent complaints of young colts, so to prevent this the mare should, during her pregnancy, be kept on a laxative diet. Many persons administer about a tablespoonful of castor oil shortly after birth, as a precautionary measure. I have also given fresh butter for the same purpose with satisfactory results; and in cases of constipation have used in addition frequent injections of warm soap and water. Diarrhoea or scouring is another complaint to which young colts are sometimes subject; and this malady, unless quickly stopped, will often terminate fatally. This disease generally arises from some unknown changes in the composition of the mare's milk, unwholesome stabling, want of ventilation and dampness are also very liable to increase the virulence of the disease. A dose of castor oil should be at once administered to the colt, to be followed by small doses of laudanum and brandy, and the mare and colt removed to dry, clean stabling. The food of the mare should also be changed, care being taken that she should have good, pure drinking water. A rest of at least fourteen days ought to be allowed the mare after foaling, before putting her again to work, which should be done gradually. The majority of foals in Canada are born in the spring, but some adopt the principle of fall foals; various arguments both pro and con are advanced, but it should be borne in mind that as the ages of horses are computed from the first of January, fall foals at an exhibition would necessarily be at a disadvantage in point of age. A week or so after birth, if the mare and colt are in good health, they will be benefited by being turned out for a run during fine weather, but they should be sheltered from rain and cold; and as soon as the nights get warm they may with advantage remain out all night. In the summer time, when flies are bad, and the mare is not required for work, I prefer keeping both her and the colt in a cool, loose box during the heat of the day, turning them out later on. Many persons allow the foal to run with the mare while she is at work; but the better way is to shut the foal in a comfortable, loose box where, especially if it has a companion foal, it will soon learn to re-

main quietly without fretting. In case the mare returns heated from work she should be allowed to cool off, and a little of her milk drawn off before she is admitted to her foal. As one of the chief points to be attained in Shire foals is bone, size and muscular development, it is essential they should learn to eat as early as possible, and that good, suitable food be given; and for this purpose crushed oats and bran with a little oilcake meal will be found well suited. Spring foals are usually weaned about September, according to age and circumstances. To effect this it is best to keep them in a loose box away from their mothers for a few days; after which they can be again turned out to pasture, when they should receive an increased amount of grain to compensate them for the deprivation of their mother's milk, the mares at the same time being kept at work and put on dry feed. Colts, like calves, should always be kept improving for at any rate the first two years of their existence, but care should be taken not to over-do it. Crushed oats and bran with timothy hay, oats, straw and roots (both carrots and turnips) will be found excellent rations for colts and mares during the winter time, the allowance of grain for the mares being regulated in proportion to their work.

Many people object to the hair on the legs of heavy horses, and some even clip it off. This is a bad practice, as the hair protects the skin of the heels, and its removal produces a tendency to cracks in the heels and grease. It is, I admit, a great trial of temper when a well-haired horse comes home with his heels loaded with mud, as they often do. Some get rid of it by washing; but if this is done the legs should be thoroughly dried before the horse is left. The better method, however, instead of washing, is to dry the legs as far as possible and then remove the mud when dry with a hard brush.

What is the difference between a Clyde and a Shire is a question often asked. The Clyde of the present day is very closely connected with the Shire. From old portraits and illustrations the Clyde of fifty years ago appears to have been an upstanding, active, well crested animal, having sloping shoulders, good feet and pasterns, and possessing about as much bone and hair as is found in the Suffolk of the present time. Robert Burns, who should have had a good knowledge of farm horses, gives the following description in "The Auld Farmer's new year's morning salutation to his auld mare Maggie":

At brooses thou had ne'er a fellow
For pith and speed;
But every tail thou pay't them hollow;
Where'er thou gaed.

The sma' droop-rumpled, hunter cattle,
Might aiblins waur't thee for a brattle;
But sax Scotch miles thou try't their mettle,
And gart them whaize.
Nae whisp nor spur, but just a whattle
O' saugh or hazel.

It would be impossible to imagine a Clyde of the present day competing against a hunter with the least prospect of success. While the *Farmer's Magazine* for 1856, remarking on Clydes at the Royal shows held at Carlisle and Chelmsford in that and the preceding years, says, "One of the greatest defects that struck us was the variable character of the breed. They are all sizes. There seems no doubt that the Clyde, like the Shire, received a cross of Flemish blood, and in later days also of Shire blood. Mr. Lawrence Drew, the celebrated breeder of horses, and many other farmers, used to come annually into Derbyshire and buy Shire mares to take into Scotland for breeding purposes, and many of the prize-winning Clydes trace their ped-

igrees to Shire mares, amongst others the celebrated *Prince of Wales* (673), who is half Shire, his grand dam, on both sides being Shire mares. For the last fifty years the attention of breeders of Clydes has been directed in a great measure to the increasing of the size of the Clyde, while that of Shire breeders has been towards obtaining a more shapely and better proportioned horse, with equal success, and now both are paragons of their kind. The Shire is usually larger in size, with a better body, more bone, and nearer to the ground than the Clyde. The Clyde, accustomed to a moister climate, appears to feel the heat more than the Shire, who is also a better feeder. Mr. A. S. Reynolds, M. R. C. V. S., Veterinary Inspector for the corporation of Liverpool (where, by-the-bye, the finest draught horses in the world are to be seen), says that the Clyde will yet require much greater development of limb and frame before he can successfully compete with the Shire for the heavy work required in such business centres as Liverpool and Manchester, where individual bulk and power is indispensably necessary to overcome the enormous weight to be moved. It must not be understood that I undervalue the undeniable merit of the Clyde, which is great, but as the Clyde is believed by many to be the heavy draught horse, I am merely advocating the greater claim to that title of the Shire, who in Canada is comparatively speaking unknown. In this vast country there is abundance of room for both; and an amicable emulation will conduce to the benefit of both breeds. As no Shire stud book has yet been published on this continent, and the English Shire stud book is probably accessible to but few persons, a note on some of the most successful sires and prize-winners in England may not prove uninteresting.

Of these *Honest Tom* (1105), foaled in 1865, is perhaps the most celebrated. He was a bay, standing 17½ hands high, weighing 2,200 lbs., and was bred by Wm. Welsher, of Walton, Norfolk. His sire was *Thumper* (2123), and his dam *Beauty* by *Emperor* (688). His pedigree is rich in Cambridgeshire and Lincolnshire blood, and traces on both sire and dam sides to *Seward's Major* (447), he tracing back to *Honest Tom* (1060), who was foaled in the year 1800. To no horse are breeders of Shires more proud to trace their stock to than old *Honest Tom* (1,105). He was a true type of cart horse (in fact so good was he, that breeders of Clydes as well as Shire breeders still use his cut reduced in size as advertisements of their stock), and performed the greatest triumph ever achieved by any horse—drawing first prize at the Royal six years in succession, besides many other prizes. In 1871 he was purchased by the Fyde Cart Horse Breeding Company for over \$2,600, and afterwards became the property of Mr. Miller, of Singleton Park, Bulton Leflyde, Lancashire, in whose possession he died in February, 1885, at the age of twenty years. His get have been successful both at the Royal and other shows. *Admiral* (71), one of his sons, after being the champion at the first London Shire shows in 1880, and also winning first prize at two Royals, besides other prizes, was subsequently exported to Australia, where he was sold for over \$8,700. In fact there are few shows where some of his descendants do not appear in the prize-list.

"I like the JOURNAL better the longer I take it."—Thos. Carr, Hopeville, Ont.

"In renewing my subscription I cannot express myself in suitable terms, so highly do I appreciate your JOURNAL. Long may it continue to shine forth in the interests of those who must sooner or later become the backbone of the country, namely the stock raisers of the Dominion."—G. H. Healey, Manor Farm, Verden, Man.

East Lambton Farmers' Institute.

(COMMUNICATED.)

The sixth public meeting of this Association was held in the Town Hall, Forest, Jan. 18th and 19th, and was attended with the most encouraging success: Prof. Panton, who has now visited Lambton for the third time in the present capacity, was accompanied by Mr. Simpson Rennie, of Scarborough. The representation of farmers was good, and the discussions that followed the papers and addresses evinced a growing acquaintance with the theory as well as the practical part of agricultural pursuits. The light the Professor throws into the feeding of cattle, and the development and growth of the fruits of the field, is certainly creating a spirit of enquiry, and leading to scientific reading and intelligent investigation.

At the evening meeting the platform was occupied, in addition to the college staff, by our three members of Parliament, who delivered eloquent and rousing speeches in connection with farm life, to a very large and attentive audience.

The number of members in connection with the E. L. F. Institute, is between 60 and 70, and the interest taken in the objects of the Society are certainly on the increase.

It is always encouraging to know that those meetings are well attended, for they are usually well provided with a staff of speakers and essayists, well equipped for the work of dispensing knowledge free. When the meetings are thinly attended, as it sometimes happens, it is very discouraging to those gentlemen who have come, it may be, a long distance to present their offering on the altar of the common good of the neighborhood. But that is the least item of the loss. The farmers who stay away, through indifference, remain on the same plane on which it may be they have spent a life time, or a very large portion of one, not one inch in practice in advance of their dead fathers, although their opportunities have been greater a hundred fold. They have stood all their days on the threshold of a beautiful temple, but to them unexplored, and have never entered in. We have seen a maiden who preferred a painted ribbon to adorn her head dress, to a wise book, the reading of which would have greatly adorned the immortal shrine, above which the ribbon was flaunted as only light-headed girls know how. We felt sorry for the maiden. But was she any the less wise than the farmer who prefers to go to the bush to-day and do what could as well be done to-morrow, instead of going to the Institute meeting to gain, it may be, more knowledge of his own life work than he will gain in twelve months in the bush?—ED.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL. Soiling a Means of Enrichment.

BY A. DUNCAN, FARQUHAR.

It is a self-evident fact that the raising of wheat under our present system of farming is not paying the cost of production, nor so far as we can see is there any prospect of it paying any better in future. Judging from present indications it is extremely improbable that wheat will exceed 75 cts. per bushel in price for a long time to come.

By continued cropping, much of the soil has become so exhausted that it will not produce a full crop and is fast becoming filled with weeds, so that when it is seeded to grass it produces weeds very largely, hence the stock fare ill indeed on such pasture.

As a remedy for these evils we must first clean the land and seed it down in a good clean condition, when it will produce good crops of grass and hay, and put us in a position to keep more stock and feed them better. We must keep a far larger herd of cattle and of a better class than we are now keeping. We conceive it is possible to keep 40 to 50 head on a 100 acre farm by adopting the soiling system.

Rye can be sown in the fall which will cut the first

week in May. By varying the time of sowing it will be in good trim for feeding until the middle of June, when oats, peas and tares sown together will be ready to take its place. If sown at different times this feed will last until green corn is ready, which will last for the balance of the season. The portion of each of these not required can of course be cured and saved for winter use.

In summer the cattle can be kept in light, movable sheds in the field, which can be moved up as the feed is used, and the manure spread over the ground, thereby saving the labor of drawing the feed to the barn, and the manure back to the field.

By grading the stock and keeping the several classes in separate pens, a small yard could be attached to each shed, so that they could go loose and have the advantage of sun and shade which nature favors.

If this system were properly followed up, 50 acres would produce fodder sufficient for the 50 head of cattle for the whole year, leaving the balance of the farm for crop, which, after it had been treated in this manner, would be in the best possible condition for producing crops as regards fertility, and if drained or sub-soiled would grow any crop required by the system in abundance.

By the adoption of this system we can dispense with most of our fences, unless it be those enclosing our farms, which would add to the area and also prevent the heavy outlay entailed in keeping up fences. The extra return from the additional ground would more than pay for the cost of the cattle sheds and fixtures.

By this system 12 cows can be kept for stock production, and say 10 head of cattle produced by them turned off every year for beef at 3 years old. At 5 cts. per pound, live weight, for each of these, supposing they average 1,400 lbs., and allowing \$30 as the product of butter per cow, we have the sum of \$1,200 as the gross returns from the cattle alone.

We know of no method by which the land can be so speedily enriched. It involves a good deal of labor, but perhaps no more than farming by the ordinary system, if we deduct the labor of keeping up fences and carting the manure made in summer.

Osborne, Ont.

[We never met with an instance in Canada, where a complete system of soiling was practised, and would like very much to see it tried. One objection that we see in Mr. Duncan's system is this, that in time of wet on clay soils, there would be very serious injury done by poaching.—ED.]

Our Scotch Letter.

(From our Aberdeenshire Correspondent.)

HOME-BRED VS. IMPORTED CATTLE—STOCK-BREEDERS IN 1887—PLEURO-PNEUMONIA IN ABERDEENSHIRE.

In a recent number of the CANADIAN LIVE-STOCK AND FARM JOURNAL there were some very cogent remarks upon the importation of Canadian "stores" into this part of the country. The opening of the port of Aberdeen to foreign cattle has been the subject of not a little comment, favorable and otherwise, and the trade which, under the fostering care of the North of Scotland Canadian Cattle Company, sprang up last year, has been watched with much interest. Compared with the large shipments to Glasgow the number of animals landed at Aberdeen is but a drop in the bucket, but the mere inauguration of such a business may have an effect upon the agricultural prosperity of a very important part of the country, which the advocates of this policy cannot in the meantime appreciate. But looking at the trade from their point of view, let us see with what success their operations have been attended and the arguments by which they seek to support their policy and enlist the sympathy of the public. The total shipments were three cargoes—two

of 350 each and one of 277—in all 977 animals, minus 21 in the last cargo, lost in passage through rough weather. The cattle in the first two cargoes, it may be stated, were landed in very satisfactory condition, but the last lot were badly knocked about and bruised on the passage. Owing to the high freight, namely, £3 on the first consignment, there was a loss of no less than £215 2/8d, although there was a capital demand for the stock. The Company were staggered at the result but still persevered, and on the next cargo they made a profit of £48 1/8d, the freight being lower, namely, £2 5/8d. The third cargo had to be taken to Glasgow, the steamer chartered by the Company having broken down. The freight in this instance was still lower, £1 14/8d, and the profit on the consignment was about £50. It thus appears that the loss arising from the sale of the cattle purchased by the Company is about £115; but in addition to this the initial expenses had to be met, which makes the expenditure on the capital account £356. The sum subscribed was £896, and the loss to the shareholders on pound shares is 7/11d. A meeting of the Company was held this week and it was resolved to reconstitute the concern with the view of continuing the trade this year. The promoters of the Company take credit to themselves that they give farmers security against disease and insure to them a constant supply of store cattle. Taking the three cargoes as their basis of calculation, they hold that had they had the experience which they now possess at their command last year, they would have been able to make a handsome return on the capital employed. At the meeting referred to it was stated that their agent was so satisfied of the soundness of that calculation that he was willing to risk his remuneration on it. Tackling the arguments of his opponents, who assert that these importations discourage home breeding, Col. Innes, chairman of the Company, said such ideas could be entertained only by those who had no knowledge of the facts. The stock of cows in Aberdeenshire, he stated, is as nearly as possible the same as it was ten years ago, say 43,000, and while the stock of two-year-olds has also continued very uniform, there has been an increase in the number of calves and year olds, showing that there had been a considerable importation of calves and year olds and an increased feeding off of cattle under two years old. The obvious conclusion to be drawn from these facts is, he thinks, that cow keeping for breeding has reached its profitable limits under existing conditions.

Existing conditions are undoubtedly the reverse of favorable, but has the landlord class to which the doughty Colonel belongs done what they might have done in the past to make what he calls "cow keeping" a profitable business? What about the extinction of the small crofts, which were splendid nurseries for home-bred cattle, supplying stores to the larger farmers and dealers who had better opportunities for finishing them off? What about the impossible rents that have made home rearing of stock so unprofitable? "But," says the Colonel, "if Aberdeenshire had a monopoly of the supply of the southern markets with meat, it might pay to keep more cows and so to produce more home-bred cattle to feed, because the enhanced cost of the home-bred stores would be recouped by the increased price of the meat." Did it never occur to him that Aberdeenshire had a monopoly of the South markets which she could have kept had "existing conditions" been more favorable?—for there was nothing of which Aberdeenshire men used to be prouder than the pre-eminence which home-bred stock had gained in these markets, and which amounted practically to a monopoly. Our home-bred cattle, now a lessening quantity (in spite of the Colonel's statistics), yet maintain their supremacy, and many hold that under more favorable conditions—lower rents and security from disease—and the re-establishment of the class of small crofters, the supply of these might be largely increased and made profitable to the country. There was never a greater difference than now in the price of "real" Aberdeenshire beef and that of rougher animals, and instead of adopting the un-Scotch policy of letting "the tow go with the bucket," it should be the endeavor of Col. Innes and his supporters to foster the production of home-breds by such means as may be found best, and putting these along side what any other country can produce, there will probably always be a margin of profit in favor of the former.

Though it may be true that the reputation of Scotch fed meat is due partly to the fact that the Scotch farmer, especially of the northeast district, is a born and

bred cattle man, I would defy even the most skillful of them to feed a rough imported steer into a well finished Aberdeenshire bullock! Such skill as the Scotch feeder possesses had better be used on the best subject, which is more likely to give him that reward which a skillful worker looks for. In view of the very sensible remarks which yourself made in the number of the JOURNAL to which I referred, it may be doubted whether the Canadian farmers will very long be content to let their best class of cattle be drawn off to be fed in this country, when they themselves have or ought to have the means of finishing off their own cattle, and thus reap the double profit arising from the rearing and feeding of the stock. When they come to see it in that light, where will Col. Innes look for his stores? He seems to think "sufficient for the day is the evil thereof," and lends his influence to support a policy which many regard with justifiable suspicion.

I will briefly state the character of the demand for pure-bred stock in the north of Scotland last year. The outlook is not cheerful. What are the facts? Since the beginning of 1887, till December last, 1574 Shorthorns and polled cattle, or about 58 more than in 1886, were sold publicly. The latter of these years was not a very profitable one to stock owners, but had the average of that year been maintained last season, the gross proceeds would have been £10,161 more upon the 1574 cattle sold than what they actually were, and put along side the prices 1882, there is a drop of no less than £35,341, that is to say considerably over the half of the old price. Last year there were 831 polled cattle sold, being an increase of 91 on 1886, when the number of Shorthorns sold was 743 as against 776 in 1886. For polled cattle the prices in 1886 were fully 50 per cent higher than last year, and in the case of Shorthorns, the prices of 1886 were 23 per cent higher than in 1887, the average being polled, £17 4s. 6d; Shorthorns, £18 14s. 9d. You have already published the results of the more important sales, which need not be repeated. Polled breeders have been hardest hit, many of the Shorthorn men having had the benefit of a keen demand both from the United States and Canada, for their stock, the result of which does not appear in any summary of the public sales. If this had been taken into account, the average for Shorthorns would have been considerably improved. The outlook, as I have already said, is not hopeful, though some with larger gifts of prescience than ordinary mortals, think they see the beginning of better times. It was with some surprise that I saw in one of our agricultural newspapers, that the editor in reviewing the year 1887, gave it as one of the reasons for the low price of pure-breds, that the common stocks in the country had been so graded up that they were almost as good as the best, consequently there was not the same demand for breeding stock. If he would come to this part of the country he would get sufficient proof to convince him that within the last ten years there has been a process of deterioration and not improvement going on among the ordinary stocks. This is a phase of the present crisis which is generally deplored.

I regret to have to mention that pleuro-pneumonia has again broken out in Aberdeenshire. Until Ireland is purged of the disease there will be no guarantee against it.

QUIDAM.

Jan. 28th, 1888.

Experimental Agriculture and its Value to Farmers.

(Continued.)

DEGENERATION OF ROOTS AND CEREALS.

All our cereals, roots and tubers are, to a great extent, artificial products. You do not find wheat, oats or barley growing anywhere in nature, as we have them now! You do not find potatoes like those in cultivation growing wild. The potato originated from an insignificant wild variety, which, by cultivation and careful hybridization has been brought to its present high standard of excellence. So with wheat, oats and barley, and all field crops. These improved plants and roots, good as they are, are liable to constant variation and to frequent deterioration—that is, they often "run out." If you recall the varieties of grain and potatoes which were grown twenty years ago, you will find very few of them to-day. This points to the importance of continuous experimental work with new varieties of grain and other crops so that by the frequent introduction (as in the case of stock) of new blood there may be imparted to these products that vigour of growth and fertility of character which will

admit of their being cultivated to greater perfection and profit.

WASTEFUL FARMING.

Our farming during the past has not always been conducted in the most economical manner. Crops sometimes have not been sown with needed promptness, the fertilizers at command have not been made the best of, and much land that would have yielded good results, has for want of proper drainage and care remained unproductive to the owner. Loss to the country has also resulted from lack of information regarding the necessity of a proper rotation of crops. Canadian farmers will require to be more careful in these particulars if they would maintain for their country in these days of keen competition and improved appliances, that well deserved preeminence in agriculture which she has hitherto enjoyed. I might enlarge here indefinitely, but perhaps I have said enough in the few thoughts presented to show that there is practically no limit to experimental work, the results of which, when its true value is determined and made known, will be of inestimable consequence to farmers everywhere; and when I say that the experimental farms established by the Dominion Government are to take up this class of work especially, and report on it frequently for the benefit of the farmers, I think I have fairly answered the question, "What good will those farms be to the agricultural community?" The establishment of so many of these experimental institutions in Europe led to the consideration of the subject in America, and about thirteen years ago the first of these experimental stations was established in the State of Connecticut. Since then a number of similar institutions have been started, supported by annual grants from the legislatures of the different States in which they have been located, until the importance of the subject has so grown on the farmers in the United States that for a year or two past the people have been agitating for more liberal support from the general Government for such institutions, and last year Congress passed a bill known as "The Hatch Bill" which provides for an annual appropriation of nearly \$500,000, to be divided amongst the different States, to be devoted entirely to this experimental work in agriculture, horticulture and forestry. In the meantime the Canadian Government has also been looking after the interests of the farmers. In 1884 they appointed a committee to enquire into this subject, and, from the information then obtained, and from the opinions expressed by practical farmers, who were called before this committee, the Government were led to consider the expediency of

PROVIDING EXPERIMENTAL FARMS FOR CANADA.

Our worthy Premier, Sir John Macdonald, who always takes the warmest interest in everything that tends to the prosperity of the agricultural classes, asked Parliament for an appropriation of \$20,000 towards the purchase of a site for an experimental farm. In November of that year I was requested by the Government to visit the different agricultural stations in the United States, and also to ascertain by correspondence the working of similar institutions in Europe, and to prepare a report for the Government which might give them such additional information as they required in order to reach some conclusion regarding this work of experimental agriculture. I traveled through all the Western and Northern States, and visited every agricultural institution located anywhere near the Canadian boundary, and submitted a report of my investigations. The result was the passage of the bill known as "An Act respecting Experimental Farm Stations," which provided for the establishment of five experimental farms, one of which was to be located near Ottawa, to serve the purposes of Ontario and Quebec jointly, one in the Maritime Provinces to serve the purposes of those provinces jointly, one in Manitoba, one in the North-West Territories, and one in British Columbia.

THE OBJECTS AIMED AT

in establishing those farms might be better presented to you perhaps in the wording of the Act itself. The works to be undertaken were these:

- (a.) Conduct researches and verify experiments designed to test the relative value, for all purposes, of different breeds of stock, and their adaptability to the varying climatic or other conditions which prevail in several provinces and in the North-West Territories;
- (b.) Examine into the economic questions involved in the productions of butter and cheese.
- (c.) Test the merits, hardiness and adaptability of new or untried varieties of wheat or other cereals, and

of field crops, grasses and forage-plants, fruits, vegetables, plants and trees, and disseminate among persons engaged in farming, gardening or fruit growing, upon such conditions as are prescribed by the Minister, samples of the surplus of such products as are considered to be specially worthy of introduction.

(d.) Analyze fertilizers, whether natural or artificial, and conduct experiments with such fertilizers, in order, to test their comparative value as applied to crops of different kinds.

(e.) Examine into the composition and digestibility of foods for domestic animals.

(f.) Conduct experiments in the planting of trees for timber and for shelter.

(g.) Examine into the diseases to which cultivated plants and trees are subject, and also into the ravages of destructive insects, and ascertain and test the most useful preventives and remedies to be used in each case.

(h.) Investigate the diseases to which domestic animals are subject.

(i.) Ascertain the vitality and purity of agricultural seeds, and

(j.) Conduct any other experiments and researches bearing upon the agricultural industry of Canada, which are approved by the Minister.

It will be seen from this category that provision is made for experimental work in all departments of agriculture in each of the provinces. In order to carry on this work the Act authorized the employment of a director, who was to have supervision of all the institutions; of a horticulturist who was to take charge of the department of horticulture at Ottawa; of a botanist and entomologist (the two offices combined), and I am happy to say that Mr. Fletcher, the gentleman appointed to that important branch, is present and will be able to speak for himself. It also provided for the appointment of a chemist, whose duty it will be to analyze fertilizers and conduct all chemical operations, and also for the appointment of an agriculturist who shall be specially charged with the management of the field crops and stock.

The Most Pressing Needs of the Canadian Farmer at the Present Time.

The following paper was read by the Editor at some of the meetings of Farmers' Institutes recently held in this Province:

The most pressing needs of the farmer at the present time, though their name is legion, may be compressed into two short sentences. The first is an education that will better qualify him for his work, and the second, deliverance from the oppressions imposed by other interests in the commonwealth; or to put it differently, in the struggle of business prosecution to have secured to him fair play. Give to the farmer the first in certain quantity and he will be certain to secure the second, on the established principle that intelligence will never submit to imposition without a struggle to remove it, so that it may be said that our subject is contained in the first idea of our statement—that of a higher education.

We have assumed that the farmer has numerous grievances unaddressed at the present time, and we have also stated that intelligence will never tamely submit to oppression, which drives us to the conclusion which will surely pass without contradiction, that the farmers are much in need of a better education, a conclusion that may easily be reached in other ways.

Progress in agriculture at various epochs of the world's history has been at a standstill. In the more recent centuries it has advanced at a walking pace, at the opening of our century it became a smart jog, at the middle thereof a run, and now, like the antelope of the wilderness, it rushes on with a succession of mighty bounds. The farmer of the spade husbandry era has not brought about this change, nor was progress such as we refer to accelerated in this country in the reign of the axe, through the agency of muscle. Muscle is a grand thing in its place, but when the various agencies that have lifted farming out of the stocks of muscle drudgery, and crowned it king among the industries, shall be marshalled in review, in the order of their deserts, muscle will not be there. It will be found that here, too, as everywhere, mind has been superior to matter, and that the mind of the scientist, the inventor and the machinist is mainly to be credited with the rapid strides that the agriculture of to-day is making. Or, in other words, those po-

tent demonstrations were first propounded in the garb of theory, which so many of the sons of toil so thoroughly despise. The mighty march of progress is rushing past at a pace which muscle alone can never keep up with, hence the urgent need of a more thorough education of the powers of mind possessed by the farmers of to-day, and those who are to be the farmers of to-morrow. Yet muscle with the farmer is a factor that cannot be despised, and no definition of education for the farmer will be complete that ignores its importance. The definition of education by the teachers of the past ran thus: "Education consists in the drawing forth and training the powers of mind, so that their possessor shall become more useful in life." This definition may do for the merely professional man, but is neither broad enough nor sufficiently comprehensive to apply to the farmer. So little attention is paid to the development of muscle by the professions, that in a few generations the species becomes extinct, and has to be constantly recruited from the farm. Education for the farmer consists in so developing the powers of mind and muscle, that their possessor shall be enabled to utilize all the improvements of the day in the furtherance of his calling.

From this definition you will readily perceive that the progressive farmer of the present must be a life-long student. His education can only be got in part in the rural school, where first the young mind begins its wanderings in search of the treasures of the past. It can only be got in part in college, in the company of the master spirits of the living and the dead. It must be gathered largely in the realms of observation and experiment, the observation and experiment of others being made easily accessible to the former by means of books and the agricultural press. He must be a constant student of the improvements of the day, else he cannot keep abreast of the times, sitting in judgment himself upon their relative and intrinsic values, before giving them a place in his regular practice. The farmer in his efforts to secure a complete education for his son will guard his physical development and education with a jealous care. From an early day he will accustom him to the performance of labor in every department of the farm, with the development of his strength, for at no other period of life will ease and proficiency in the form of manual labor be so easily acquired. We have long held it as greatly advantageous, that a farmer be able himself, to perform manual labor in a more perfect manner than any one he employs, even though its performance should form no part of his regular daily routine.

Two of the agencies that we have named are beyond the reach of the generation at present engaged in tilling the soil. From the help that the common school and the college might give, they have been borne far hence by the ever advancing wave of the long journey. But the other aids referred to are easily accessible and also another educational medium transcendently important as we regard it to the passing generation, the Farmers' Institutes that are being formed of late in the various ridings of our province.

The dominant idea connected with their organization was educational, and to those already in the thickest of the fray they are pre-eminently adapted to the diffusion of knowledge on the great, grand science. We can only compare them when rightly conducted, to a great feast, where all the luxuries of a neighborhood and many from places far away, are spread out in an unlimited profusion, and of which all are invited to partake. The poet sings, "All the treasures of the east lay before the Doric spear," so here we may have all the rich experiences of the various points of the compass of a wide neighborhood, brought to the one focus, thrown into the lap, as it were, where choice may be made of what is deemed of value, and the rest emptied out. But our children can even fare better. The Minister of Education has promised us that at an early day more will be taught on agriculture in our common schools, and the marvel is that the farmers have not insisted on this long ago. How unfortunate it is that young lads intended for the farm have spent so much time in what was to them in many instances the unmeaning mummery of "The subject and the predicate," and kindred knowledge, who never knew during the entire period of their school days what "early maturity" meant, nor could they give the distinction between a beef and a dairy breed of cattle. And now before we leave this subject of education, if what we have said regarding it is to be forgotten, let this be remembered, that in the education of the young man or maiden, intended

for the farm, let the education of both mind and muscle go hand in hand, or completeness of equipment can never be obtained, for neither the one of these nor the other that may be lacking at maturity, can ever be so easily or so perfectly acquired after that period. We have said that farmers are oppressed by other interests in the commonwealth. The term oppressive may seem a strong one, but we are in no way disposed to soften it. It is either true or not true. We hold it true.

(To be continued.)

A Day Amongst the Newly Imported Shorthorns.

We have heard it whispered by some who, it may be, would be pleased so to see it, that the Shorthorn interest in Canada is waning, and that the retrogression dates from the action taken by the Dominion Shorthorn Breeders' Association when its present standard of registration was fixed upon. That was not the impression left upon our mind on February 7th, a day on which we inspected more newly imported Shorthorns than on any one occasion previous, not excepting our visit to the Quebec quarantine in June of 1884, a year which is memorable for the extent of its importations.

MAPLE SHADE.

We began with Maple Shade, where Mr. John Dryden, M. P. P., of Brooklin, has brought the entire herd of Mr. E. Cruikshank, of Lethenty, consisting of some 41 head—11 males and 30 females, at the time of purchase—but which has been increased by 14 head since that date. It has been the motto of Mr. Dryden for many years in his breeding operations to seek "the greatest quantity of the best quality," hence it is not to be wondered at that when the opportunity offered he most eagerly secured a herd whose owner from the first acted on the principle "that a good beast is on every consideration more desirable than a bad one," and who "drew a distinction between Shorthorns constitutionally wanting in flesh and that have been fed up on purpose, and Shorthorns that are naturally full of flesh and easily kept." The three leading characteristics of the herd in Scotland were fleshiness, substance and hardiness, and these much coveted qualities will only be intensified rather than the opposite by the careful, skilful management always observable at Maple Shade.

The foundation of this Lethenty herd, as stated by our Aberdeenshire correspondent in the December issue of the JOURNAL, p. 680, "was laid through the purchase of several Lord Forth cows at Rettie, near Banff, and to these Mr. Cruikshank added a few heifers from the herd of his uncle at Sittyton." The bulls that were used on this foundation strong in Sittyton blood, were Perfection, bred by Mr. Amos Cruikshank and Prince Rufus, a son of Perfection. The three stock bulls at present at Maple Shade are Patriot (53390), Sussex, a red roan, and Sittyton Chief, a red April calf of orthodox shapes, bred at Sittyton from the dam Surname and the sire Cumberland (46144). Patriot, a red, is a shapely fellow with a strong parallelogram back, and nice, all round adjustment and carriage, but not quite so strong perhaps as Sussex, a roan, bred at Sittyton by Royal Violet (47444), and out of the dam Serenity by Barmpton (37763), with a grand back and extraordinary quarter. The young calves of his get are strong but not perhaps so neat and perfect as those by Patriot.

We saw the Sittyton Grizelda with substance great and strong, the three-year-old Butternut by Vensgarth (47192), the five-year-old Almond Blossom, with a top so grand; the two-year Twilight, vigorous and promising; Harmony, in her eleventh year, the dam of Red Emperor, the champion in so many western

show-rings, and his youthful half sister Red Empress, of stately mould—but why should we distinguish where all are good? The five imported bull calves and two home bred are a good lot. They have sufficient bone and lots of substance, though like all the rest of the herd, in but moderate condition.

The Maple Shade catalogue, just issued, a model of its kind, contains the pedigrees of 51 females and the three stock bulls, and in the appendix are the young bulls held for sale. This catalogue is in itself an epitome of the history of Mr. Dryden's herd. It contains the name, color, vol. and breeder of each of the dams in the pedigree, and the name, number, color and breeder of each of the sires.

After leisurely gazing at the 70 head of Shorthorns of this herd, we saw and admired the strong Clyde one-year stallion recently imported from Lethenty. The large flock of beautiful shearing imported Shrops, with their shapely bodies and low-set frames, with beautiful black faces and bright eyes blinking from behind their half blinders of wool, came next. It required much firmness on the part of Mr. Dryden to prevent their shipment to the United States.

THE DORSET STOCK FARM.

We found Mr. H. H. Spencer, of Brooklin, amongst his stock, where he loves to be, and as on former occasions we had noticed that while his place is not heavily stocked, he has a careful regard for quality. The Isabella Shorthorns are sustaining their reputation as producers of neat, useful cattle, two pretty heifers by Vensgarth being all that could be desired. The Shropshire Downs were in fine trim, the stock ram, purchased from Mr. Dryden's importation of last year being in every respect a model. His covering is most complete. As with the cattle and the sheep, so was it with the Berkshires, and the Clydes.

THE MESSRS. JOHN MILLER & SON, of Brougham, Ont., have done a splendid business this season, more especially in Shropshire Down sheep and horses, but they have also done their share in Shorthorns. Of the former the stock is low, but very select, all that could be kept from falling into the hands of the Americans by the imposition of very heavy restrictive home tariffs. Of the large lot of Shorthorns here the Strathallans take the lead. They are certainly a fine family of cattle. In addition to shapes that are right, they seem all of them to possess a vigorous constitution, and that coating of fine, strong hair which so surely indicates quality, and enough of size to make them profitable. There are several bull calves and one-year-old bulls in the herd, strong, shapely fellows, and most of them sired by the magnificent Cruikshank bull which leads the herd.

The horses were not at hand, but more will be found relating to them on another page.

THE GREENWOOD SHORTHORNS.

This herd is well supplied with representatives of both sexes from this side of the Atlantic and the other. The females alone number 48 head, of which 7 are Nonpareils, 4 Minas, 4 Rosebuds, 5 Daisies, 3 Minnies, 3 Lancasters, and 2 each of the Margarets, Clementinas and Victorias, while the Stamford, Claret, Verbena and other tribes are represented. The stock bulls are imp. Premier Earl (48454), Baron Camperdown (47389), and Royal Victor (53611), the two former bred at Sittyton, the last mentioned at Collynie.

The bulls now number some 14 or 15 animals, of which 5 head are bulls of 1886, by imp. Eclipse (49526), save one. The home-bred bulls of 1887 are mostly by imp. Warrior, now of the Sylvan herd of the Messrs. Nicholson.

Of the 1886 lot we admired Lord Erskine, a beau-

tiful roan, which will some day win red tickets, and of the younger lot, Victor Hugo, a Cruikshank Victoria, in the pink of condition, and Warrior Bold, a red, which will make a good sire for his purchaser or he will fall short of present promise.

The imp. bull calves, now one year, all came from Kinellar and are sired by the Cruikshank bull Gravesend (46461). Warfare, red, a Rosebud, is a deep, thick, short legged calf of much style in front, and quarters broad without roughness. Baron Hope, a red, is one of the old Cold Cream sort, straight, even and smooth, with close fitting shoulders, and would take the Englishman's fancy. Star Imperial, rich in the blood of Cruikshank sires, is lengthy and showy, with the decided Scotch types and more than Scotch style and finish. Golden Victor, a red, one of the old time Golden-drops, is neat and smooth and fine, thoroughly typical of the low down, thick, beefy sort. Mr. Johnston takes a delight in showing this bull in a silence that is significant. Viscount, of the Ury family, a red, is excellently bred, and Bank President, out of the dam Maid of Promise, which produced the prize winning Warrior, labors under the disadvantage of being a light roan in color, though a fine calf. Primrose, a red, with a Claret dam, has much heart girth and grand ribs, and like the rest of his stable companions, has nice flat horns and a wealth of hair, such as one loves to handle. Visitors were at Maple Shade and Greenwood in a long succession the day of our visit, and so it proved where succeeding visits were made. All those stockmen are doing a splendid trade in entertaining visitors, whatever may be the outcome.

KINELLAR LODGE.

Seven or eight miles westward, sometimes on the road, sometimes in fields, around farm steadings, and over hills and through hollows, brought Kinellar Lodge, now owned by Mr. John Isaac, Markham, formerly of Bomanton. We passed "Rigfoot" on the way, once the home of the late Geo. Miller, the pioneer importer of that section of country. He is gone, and other and greater breeding centres have arisen, but the improved stock traceable to the Rigfoot importations remains. Fortunately for Kinellar Lodge it has fallen into such hands, for having been rented for many years, it has shared the too common fate of rented farms in this country in having been sorely fleeced, although naturally very productive. What would become of our country if the whole of the land were managed on this principle? Mr. Isaac has felt the ill effects most in a shortage of crops. Thus it is that land restorers, in common with the country, must needs suffer in consequence of the ravages of the land spoiler.

Mr. Isaac is now happily located for raising stock successfully, being but two miles from Green River station on the C. P. R., and 1¼ miles from Markham on the Midland.

The importation of last autumn comprised three young bulls and four heifers. Reporter, a red, from the dam Wimple 13th, by Golden Prince (38363), is of the same family as the cow which at the sale of Mr. H. Thompson, of St. Mary's, brought \$500. Rajah, a red and white, with Borough Member (33186) for g. sire, is of the Mary family, and Hopeful, a red, is come of the Rosebuds of Kinellar. They are all sired by Gravesend (46461) and are strong, useful bulls, just the sort most wanted in the herds where the desire is to get flesh on the parts where it is most valuable.

The three heifer calves of the Cecilia, Claret and Fanny families respectively, comely in their shapes as the bulls, are also by Gravesend (46461). Ury Girl, a red, by Vermont (47193), is of the Urys.

The other families of the herd are 5 Clarets, 5 Minas, 3 Clementinas, 3 Bettys, 3 Bellas, 3 Nonpareils and 1 Rosebud. Further comment on the richness of the blood here represented would be out of place. The stock bull, Baron Lenton (49081) was bred by A. Cruikshank, Sittyton. He is of the Lavender family, and although not in the strict sense of the term a show bull, has proved himself a worthy sire.

SPRING BROOK FARM.

Some eleven or twelve miles more brought Spring Brook Farm, owned by the Messrs. J. & W. Russell, Richmond Hill. This farm is but one mile from Richmond Hill post office, three miles from Richmond Hill station, and four and a-half miles from Thornhill, on the N. R. On the way the home of Mr. A. Russell was passed, reluctantly, without a call. Mr. Russell brought out an importation of Clydes referred to in our Scotch letter in December issue.

The Messrs. Russell's farm contains 250 acres of land, well worth \$100 per acre. A small brook running across it winds its way through seven fields. Mr. Wm. Russell, now in his 86th year, the father of the present members of the firm, is a fine specimen of the generation of pioneers who grappled so manfully with the difficulties of wilderness life, of whom but few now remain. He was present at the dispersion sale of Mr. Robinson, of Ladykirk, more than sixty years ago, and spent twelve and a-half years in that vicinity. It will be remembered that many of the pedigrees in the Sittyton and Kinellar herds trace to foundation stock purchased at this sale.

At the Centennial, held in Philadelphia, 1876, Mr. J. Russell, the senior member of this firm, exhibited a herd consisting of four females and a bull, and brought back from there one gold and five silver medals. The former was won by the cow Isabella as best animal in the field, although four different breeds competed in the beefing line. The silver medals were for Shorthorn bull, cow, heifer and herd.

The herd now numbers 34 head and some young calves. Of the bulls five are home bred yearlings, one a two year-old, and three imp. calves of the spring of 1887, from the Kinellar herd of Mr. S. Campbell.

The home-breds are by Mr. J. Isaac's Cruikshank bull Baron Lenton (), and by Royal Booth 2nd, of the Bright family, with Saxon Queen for dam. No less than 11 of the females are descendants of the famous Centennial cow Isabella, of the Nonpareils 4, and Rose of Autumn 4. Other tribes are represented, as the Gipsy Queen, Mary Booth and Bessie.

The three bull calves imported are, *Tothills*, a red, of the Claret family; *Windsor*, a red, of the Bessie family, and *Killerby*, a roan, of the Jessamines. They are all by Gravesend (46461), and are a trio of admirably built bulls. Stronger than the average of Kinellar cattle, and fine handlers, they should be eagerly picked up by those who are really seeking stock bulls of the first order.

The three imp heifers, the *Royal Princess*, calved February, 1885, an 1886 heifer of the *Miss Ramsden* family, and an 1887 heifer of the *Minas*, are all roans. *Royal Princess*, admirably furnished, with flesh nicely covering a well built frame, is by *Star of the West* (48789), and out of the dam *Vail Princess*, by *Wind sor Vail* (44273). She carried first at the Highland Society's Show as a yearling. Three of the *Miss Ramsden* family were sold by this firm to Mr. L. Adams, of Storm Lake, Iowa, for \$1200.

The cattle of this firm are fine, strong specimens, in the pink of condition, and compare very favorably with those of the best Shorthorn herds in the province. The same remark applies equally to the Cotswold

sheep and Clyde horses. With the former, numbering some 40 head, there were already 16 strong young lambs.

The stud of Clydesdales consists of the imp. stallion *Young Hartington* (3515), and three home-bred mares, which won 1st and silver medal at the Toronto Industrial, 1887, as best Clyde mare and two of her progeny. *Young Hartington* is a horse of fine character, bred at *Blackburn, Aberdeenshire*. His sire is *Hartington* (1450), by *Newstead* (559), a first prize Highland Society winner, and on the dam's side a brother to the illustrious *Darnley*. His dam, *Gip* (reg.), is by *Lord Raglan* (1203). This excellent horse thus combines the blood of *Newstead* (559), *Darnley* (222) and *Prince of Wales* (673), three 1st prize winners.

Brief Notes of a Visit to Scotland.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

DEAR SIR,—In compliance with your request it affords me much pleasure to pen you some notes hastily prepared of a visit to the land of Robert Burns.

A brief day in August last was spent in Ayr, that town famous for "its sonnie lads and bonnie lasses." Following the course of the great throng of tourists I went to see Burns' monument, the thatched cottage in which he was born, the auld kirk and all the other six-penny shows. The road to the monument and cottage was literally crowded by visitors from all parts of Europe and America, who had come to pay homage to Scotland's immortal peasant bard.

A few days later a most enjoyable trip was made into the heart of the Highlands. At Greenock our party boarded the magnificent steamer *Lord of the Isles* and sailed through the *Kyles of Bute* and *Loch Fyne* to *Inverary Castle*, the seat of the *Duke of Argyll*. I shall not attempt to describe the most beautiful scenery I ever saw. O! those heather-clad hills were grand beyond description. I never read any description and I am sure I never will, that can in the faintest degree approach the reality of this happy scene. The sun shining down on those great hills, all glorious in their purple heather robes, reflected them in the water. Now the steamer shot through a narrow gorge, then again over some wide stretch of water clear as crystal, and onward into an ever-shifting, ever changing fairyland scene. Taking coach at *Inverary* we drove twenty-four miles through one of the most mountainous districts of the Highlands. The road has been built at great cost, part of it as a Government road, at the time of the rebellion in the Highlands, and in many places so steep that the guard had to stand on the brakes. At other places we had to get out and walk. The scenery here is grandly rugged, the mountains varying from two to three thousand feet above the sea, *Ben Lomond* looking down calmly over them all. All through this region we saw nothing but the black-faced, long-horned Highland sheep, and little dun and black native cattle. Here was seen pastoral life in all its simplicity—the "wee thatched hovel," with the reek coming slowly out of its mud built chimney, the children and the chickens mixing in happy contentment in the dingy surroundings. The shepherd, surrounded by his dogs, moving slowly, as shepherds always do, over the hills, or leaning on the dry stone dyke, happy no doubt in his own rustic way, not troubled with an over ambition nor at all concerned about the Saturday half holiday or the eight hour movement, and whose aspirations never go much beyond a new plaid or a good supply of dried mutton from the "braxie" sheep found dead on the hills, to meet the needs of winter. Is not this man at least as contented as the average workingman of the city, with his morbid discontent at the nature of existing arrangements?

Sailing back on the morrow and skirting the base of *Ben Lomond* on the other side, at the end of the lake some splendidly equipped four horse coaches were in waiting to take the party to *Inversnaid*, six miles distant. From this point we rose by a steep and winding path six hundred feet, and yet were but a short distance from the starting point in a straight line. It almost made one giddy to look down. This drive took us through the heart of the *Rob Roy* country. At *Inversnaid* we again took steamer on *Loch Katrine*, passing through the scenes made famous in the *Lady of the Lake*. Next came the *Trossachs*, where

there is a woodland road with branches of the oaks meeting over our heads.

The *Tay* bridge is of great length, taking a train running at good speed three and a-half minutes to cross it. It will of course long be associated with the dreadful catastrophe which occurred a few years ago, when an entire train was engulfed, not one person escaping from the wildest plunge ever made by locomotive.

A few days later and we were taking in the hospitalities of *Tarves*. The stock at that time at *Tarves* were purchased steers—a fine lot they were. A whole day was spent at *Sittyton* in going over the six hundred acre farm of the man whose name can never die while the term *Shorthorn* lives. The head of *Sittyton* is an old man of a splendid stamp, and one can well understand the high estimation in which he is held by all who know or who have had dealings with him. The following day was given to the inspection of *Mr. Wm. Duthie's* farms and stock. The home farm, *Tarves*, contains 80 acres; No. 2, four miles distant, 220, and No. 3, two miles, 200 acres. There is but little doubt in my mind that the 100 head of *Shorthorns* to be seen on these two farms make one of the finest herds, all in all, in Scotland. They are large, fleshy, exceptionally level and even, very few of them old cows, nearly all of them being four years and under. The bulls used are the best that money will buy.

The head of *Collynie* impressed me as being a first-class specimen of the high class Scotch farmer. Had his farm been in the competition of 1886 it would have been an easy task to have said a good deal about it well worth reading. Eight men the year round are kept on each of the outlying farms, and one of the best foremen that can be obtained is put on each. There is no getting over the fact, though, that even on these and other well managed farms that I have been on in this country, there is less work done in a given time than with us.

Not many days later the great ram sale at *Kelso* came off. As your readers know, this annual sale is the most important of its kind in Britain. Four rings are made and an auctioneer stands in each, being timed to sell a sheep a minute. *Lord Polwarth*, as usual, headed the list. One of the most noticeable features of this great gathering to me was this—the very high average of the general appearance of the farmers. I never saw a finer looking lot of men. I was afterwards told that this is always a noticeable feature of this sale and one that is commented upon by those who, like myself, come there for the first time. The farms in that part of Scotland and across the border as a rule are large; the occupiers for generations have been well-to-do and have received a liberal education.

A pleasant day was spent in taking in the pretty little Scotch town of *Melrose* and in driving to *Abbotsford*. There are few lovelier places in Scotland than those of this part of the country, along the banks of the *Tweed* and *Gala* water. The many drives are especially fine, and the two hours' hard work that my friend and neighbor from *Guelph* put in with me in climbing to the top of the *Gildon* hills one Saturday morning was by no means labor lost. The sight from there is one of the grandest in Scotland. It takes in the very richest of the farming lands of the country and some of its prettiest towns. The silvery *Tweed* winding through the rich scene adds not a little to the beauty of the landscape.

We had a most enjoyable time with *Mr. Biggar*, of *Chappletown* and *Dalbeattie*. *Mr. B.* has reached his strong financial position by close attention to business. The *Galloway* herd at *Chappletown* (some of which are now on this side of the Atlantic, to go to *Mr. T. McCrae*, of *Guelph*, as noticed in your February issue), comprised about 40 females, many of them possessing great individual merit and were noted prize takers. In addition to *Chappletown* with its beautiful residence and modern steading, all built by themselves, the Messrs. *Biggar* have another large farm adjoining, rented. They have made their money largely in the seed and artificial manure business, where the appliances are very creditable. The artificial manure is mainly made of ground bones. The supply of bones is got mainly in other countries and are unloaded on the wharf at the works, five miles distant from *Chappletown*, but connected by telephone.

Some days were given to *Sheffield*, with its endless furnaces and tireless wheels. One of the most interesting spots to me was *Mosborough*, for schoolboy

days are always fraught with very pleasant memories. A tomb bearing the date 1605 also had carved on it a name that always has had for me, at least, a peculiar interest.

Frogmore was also taken in. Mr. Tait, the manager of Her Majesty's herd, was more than kind. The farms, stock, buildings, magnificent dairy, steam ploughs at work, the extensive grounds, the parks, where 1500 deer run at large, all were leisurely taken in with Mr. Tait as host, guide and interpreter. The long drive with its double row of great oaks is the finest in England, impressing one with its appearance of antiquity and stately grandeur.

The memories of this visit to the grand little Island home that has produced the men who are transforming for the better the face of mother earth more than all other peoples combined, can never be effaced.

Mosbora, Ont.

JOHN I. HOBSON.

being able to show that their horses trace to those imported and bred by Mr. Miller and a few such men similarly minded. As far back as the year 1863, we find on looking up the records, that 'Thistle Ha' produced a horse to win the diploma at the Provincial Exhibition of Ontario, beating all the imported horses competing. His dam won for Mr. Miller twenty-one first prizes and was never beaten.

He has seldom been unrepresented at our largest shows by his horses, and he has succeeded so far in taking two out of three of all the first prizes shown for. Taking into consideration the long and successful experience of Mr. Miller, we are not surprised that we now find in his stables a magnificent lot of

Scotland, Mr. David Hood, Balgreddan, whose property she now is. She was sired by Benicia Boy (41), by Samson, alias Logan's Twin (741).

Dornock Davie is as well put together as his breeding is excellent. He stands 17 hands high, weighs 2120 lbs, and is as smooth and smart as a pony, with great style, quality, substance and action.

Roving Prince (4674), rising four years, was sired by Lord Derby (485), a horse so well known to Canadians as a sire and as having so many of his progeny doing good service in this country, that it is unnecessary to describe him here. Roving Prince's dam was Duchess of East Grange (3903), a mare long shown, but never beaten in Morayshire. She had for sire



DORNOCK DAVIE (Vol. x.) rising 4 years.

The Shetland Pony JANET, at 20 years.

TORCHLIGHT (Vol. x), rising 3 years.

CLYDESDALE STALLIONS.

Imported by and the property of the Messrs. John Millar & Son, Brougham, Ont.

The Clydesdales at Thistle Ha'.

On a recent visit to the above named farm, owned by the Messrs. John Millar & Son, Brougham, Ont., we were much pleased with the magnificent display of Shorthorns, but the collection of Clydesdales is still more attractive to the lover of this breed of horses, and does great credit to, the veteran stockman, who made his first importation fifty-two years ago, and has continued the good work ever since, as new blood and new additions were required. Clydesdales and Shorthorns were extensively bred on the farm long before this was a paying business, but they were still kept before the people, who were slow to be convinced, till at last many have become satisfied that Mr. Miller was right and they were wrong, in not giving more attention to the breeding of better stock, and now many of the people of Canada are sharing the advantage of

stallions and mares. So nearly are they equal in merit, that we hardly know which should be mentioned first, but will commence with the heaviest. Dornock Davie (vol. x), a brown, rising four years, is a grand horse, bred by Wm. Vivers, Dornock, Dumfriesshire, Scotland, and sired by General Neil (1143), one of the most noted horses in Scotland at the present time, and one of the best bred horses and best sires that that country has ever had. He was sired by Doncaster (238), who won the Highland Society's silver medal at Inverness in 1874 as the best stallion any age. His dam was Dornock Jean (435); she is now twenty-one years old and still looks well, we are told. Although the dam of a very large number of good horses, last summer she raised a grand foal and had with her a splendid yearling daughter in the field of one of the best breeders in

Champion of Moray (138), also a great prize winner in the North. Roving Prince was used extensively in the stud the past season and has done good service. He stands 17-1, weighs 2030 lbs., has great strength of bone and muscle, has a smooth, round body, good style and action and looks a very attractive, valuable horse.

Kohinoor (5123), rising four years, is a beautiful bay with white marks, stands 17 hands high, weighs 2012 lbs., has very fine carriage, good action, splendid legs and feet and a well turned body. He had for sire General Neil (1143), already described, and for dam Jess (561), by Lord Clyde (1193), foaled in 1858 and known as having been of such great benefit to the Clydesdale breeders in Dumfriesshire.

Torchlight (vol. x), rising three, a nice bay in colt with white marks, stands 16 hands 2 in. high and

weighs nearly 1800 lbs. He has grand style, superior action, sound legs and feet of the best quality, well sprung ribs, and is one of the smoothest and most attractive horses we have seen for some time. He was sired by the noted horse Old Times (579). Old Times has perhaps ranked next to Prince of Wales (673) in doing good work for Clydesdale breeders. He is now nineteen years old and is still sound, active and vigorous. These qualities have been in a great measure imparted to his offspring, and Torchlight has surely fallen heir to his portion of them. Torchlight's dam, Maggie of Balgerran (vol. x) is a very noted mare and is promising well for her owner as a breeder as well as being a successful prizewinner.

Wildrake (5442), rising three years old, is a dark bay horse of great substance, style, action and quality; very slight white markings; good bone and muscle, with plenty of soft hair, and will make a valuable addition to any breeders stud. His sire was Topgallant (1850), one of the most noted sons of the great Darnley (222). Topgallant has proved himself a successful show horse, and his breeding career bids fair to excel that of the show yard. He is a horse of great size, combined with quality. Wildrake's dam was Bess (5702), sired by Prince of Renfrew (664), a Highland Society winner, and certainly one of the best horses and one of the best sires that Scotland has produced. There are many more valuable horses to be seen at "Thistle Ha'." Amongst them might be mentioned the imported Cleveland Bay stallion Statesman (663), rising four years, of great size, large bone and muscle, good action and color. He must prove a valuable horse for those wishing to breed horses to bring the top price as coach horses in the large cities. Also several young Clydesdale stallions and mares in foal. There is only one filly rising two years old and one rising one year that are for sale. They are both good, and bred from the noted prize winning mare Bonnie Bird (4891). All those in search of a first-class Clydesdale stallion, would find the time well spent if Mr. Miller were given a call.

THE SHORTHORNS.

We will add a few supplementary notes to those already given on page 71.

The herd has now been fifty-two years established, and comprises about 70 head. At the head stands the wonderful bull Vice-Consul, bred by Amos Cruikshank, of Sittyton, and selected by Mr. Miller in 1885 as the choice of all his calves, before any of them were sold. He is of the Victoria family, a rich red in color, and is one of the grandest, if not the best, specimen of Scotch Shorthorns that we have seen. He is a very heavy, thick-fleshed, short-legged animal, and has the best top from one end to the other that one can well imagine. His calves promise fair to do him honor. We noticed a roan by him and from a Strathallan cow, that is already a good bull. He was calved in November last, and is covered with thick mossy hair that never fails to be accompanied with lots of flesh of the best quality. This bull will win prizes for somebody. There is to be found in the herd ten young bulls, mostly red, but some are roan, and nearly all sired by Vice-Consul, and from imported cows. We saw an imported bull, bred by Sylvester Campbell, Kinnellar, of very good quality, a thick-fleshed animal like the rest of the bulls in the market. Prominent amongst the females is the Strathallan cow that produced the Messrs. Snider's Rose of Strathallan 2d, the great show cow. Her dam was Rose of Strathallan, the gold medal winner at the Highland Society's show at Dumfries. She produced a great many show animals and many of the females are still retained in the herd. Red

Rose of Strathallan, that produced the unbeaten bull and heifer, Strathearn and Lady Strathearn, last year described as being phenomenal at the Iowa state fair, is herself a splendid show cow. Miss Rose of Strathallan and Red Rose of Strathallan 3d, are thick fleshed, large and smooth cows, and the family is a deep milking one as well as possessing such wonderful flesh producing qualities. Lydia, Jilt, Young Lydia and several other Scotch cows are justly admired as being good cows and having promising calves at foot. We also saw a splendid stable of young heifers.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Judging Value.

There is nothing better understood among expert breeders and judges of fine stock than the average ignorance of the Ontario farmer respecting that nice distinction and seizure of points that determine the judgment of an educated critic at the first glance. It is this painful ignorance of points which are under their eyes all their lives, and every day of their lives, that causes so many of our farmers to content themselves with a quality of stock that at no great expense, might gradually, and surely will some day, entirely displace the scrubs and screws and crosses that are now hibernating round many a straw stack whose shelter they are not worthy to seek. You hear a man spoken of as having a good eye for a horse, and it is a fact that such an eye must come to a man by nature, but its ability to note details at a glance can only come of practice. Granted education in points and the true image of the nonpariel ever present on the observer's retina, he then has to make a rapid summary of the derivations from perfection in the particular subject under review.

We have always heard that a good judge can sum up the pros and cons in a horse's construction in a minute. He can turn his back on the horse and tell you from the point of his ears to his hind heels, any blemishes, peculiarities or aberration from that nice balance of points which is possessed by the perfect horse. His off-hand decision is nearly always correct. It does not include a warranty that the animal is sound, a conclusion only to be arrived at after a careful and protracted examination by a veterinary surgeon. But superficial defects strike the expert's eye with a rapidity and comprehensiveness quite incredible to the ordinary rider and driver of horses.

It is exactly the same with cows and sheep, but as horses are sold high or low according to the expectation of serviceable utility that is based on the general appearance, it is absolutely essential that every breeder of a colt, desirous of getting the true worth of his animal, should know the indications of value. As a rule the general breeder, or as he generally calls himself, "the common farmer," knows nothing of these indications. He asks the same price for either of the two colts, when the city middleman purchasing from him knows very well that there is perhaps as much as sixty or seventy dollars' difference in their respective values. Three times out of four, the farmer sells his four-year-old colt too low. If it be one possessing those points that will command a price between two and three hundred dollars in Toronto or Montreal, he asks (to take an average figure) one hundred and twenty dollars. Say that it costs thirty dollars a year to raise the colt, the question is whether he could have afforded to sell the animal for thirty dollars when one year old. Having regard to cost of stallion, loss of mare's service, generous feeding the first winter (an absolute necessity), and other incidentals, the answer must be a very decided negative: even if a charge of only thirty dol-

lars per annum be taken as a fair equivalent for three years' hay, oats and attendance. But as the breeder knew the real value of his animal, and the difference between the rich man's carriage horse and a street car slave, he will be able to strike such an average, taking the sales of the good and indifferent lots together, that he will come out ahead. Perhaps in no one way could the farmer be more benefited than by a series of lectures delivered with object lessons: where sheep, horses and cattle of several types might be exhibited and their defects and excellences duly noted. It is safe to say that not one farmer in a score has the slightest idea of what is called all round action in a horse—which of all other qualifications is the one commanding most money. Most of them will tell you the speed of an animal—almost always, and sometimes unconsciously exaggerating it—but mere speed, except in the rare instances when it attains to racing value, is of no consequence in determining the price of city horses. And it is to the cities that high-priced horses eventually gravitate. Whether a horse's shoulder is so placed as to make him a saddle horse or fit him only for harness purposes, is another point on which most farmers are ignorant; but it is an essential one in determining value. The breeder is in fact generally a man acting by haphazard and not coupling his mare with any definite object in view, because he has not educated himself to know the business in which he voluntarily engages. Perhaps, as we have said, winter lectures by competent persons might help this, for as an illustration it may be noted that the writer was thus very recently addressed: "I did not know till I heard Prof. Grenside say so at our institute meeting, that the use of the thoroughbred sire was essential to the production of riding and cavalry horses." Now if this gentleman, famed all over Canada as a breeder and importer of live-stock, didn't know this elementary truth, it goes a long way towards explaining the cause of Col. Ravenhill's complaint, that there should be a hundred thoroughbred stallions serving in Canada for every one now to be found here. It is a truth that has been preached pretty often in these columns, and in those of every live-stock paper in the world. Crystallized it is this: Moneyed men in cities, and their sons, will pay three hundred dollars for a ride-and-drive five-year old that suits them. This can only be procured by the thoroughbred cross. The Americans in the Eastern States having neglected this maxim, come to Canada to buy ride-and-drive horses, finding that the trotting horse sire has at home effectually killed the production of what they are looking for. Their own country is swamped with "light harness" buggy horses. The horse-breeding farmer has the rich men of two countries at his mercy, if he would only learn his business. So much for judging the points of horses. But ask Mr. Ballantyne, M. P. P., if what we say of horses is not too generally true of cows. How many cattle-breeders can tell at a glance beefing or milking qualifications, as shown by infallible signs? Very few young men educate themselves in cattle points, or know the characteristics of the various breeds. They are, as an old breeder remarked to us the other day, too fond of trotting talk, and waste on that a deal of time that might be better employed learning how to make money in their business. The most vitally important factor in doing good business is, in all other branches of trade, thought to be a thorough knowledge of the article a man may be dealing in. Where the staple, quality, fashion, value and peculiarities of the goods vary as they do in live-stock, it is more especially needful for the tradesman to be a good judge of his own wares.

Light Horses—Care of Manures— Working Bulls.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will you kindly oblige a subscriber by publishing a reply to the following questions:

1. Is it the conclusion of experience that the best horses are raised only on grasses of high quality, and consequently on rich lands? We refer to horses adapted to hunting and cavalry purposes, and where mettle, endurance, constitution and good hools are required to be of the best.

2. What are your views as to the proper diet climate and treatment for rearing of such colts in the best way, and what are the limitations necessary to be observed in forcing them? What diet treatment is likely to produce feet which will best withstand the wear and tear of city pavements?

3. Is it certain that in the State of Kentucky the chances are best for the rearing of horses possessing in a high degree the essential points of vigor, endurance and ability to perform in the best manner the duty expected of its class, and if so, why?

4. Is the old system of wintering good colts in open but dryshelter, and on hay, straw and such grain as they may find in winter, or no grain, to be recommended as fulfilling any useful purposes? If so, what are they?

5. The cows in this vicinity are milked at five o'clock in these winter mornings. Is it a judicious thing to do to rouse working or producing animals at so early an hour? Is their sleep not curtailed thereby? What does the experience of practical stockmen teach upon the matter of habitually rousing dairy and other stock from sleep, and what seems to be the teaching of experience as to the earliest hour consistent with regard to their health and thrift at which this may properly be done?

6. Which of the two systems of making and applying manure is the most economical and efficient—foddering and feeding stock on the open sod, choosing such places as most need manuring, or feeding exclusively in the barnyard and hauling to it straw and litter to absorb and decompose, and swell the loads of compost to be hauled to distant fields and spread where desired? Is the increased cost of the last method justified by the gain over the former?

7. Is it objectionable to put a bull of good quality into a tread power, or to work him yoked to a steer? I have but few cows, and have the impression that to do so might prevent the bull from becoming breachy and otherwise unruly.

PIEDMONT.

Virginia, U. S.

Our correspondent "Piedmont" has raised some questions that require a good deal of intelligent experience to answer them in the best manner. We therefore invite correspondence in future issues from any who can speak with authority, particularly on the questions that relate to horses.

(1) Yes, but always with reference to attendant conditions, as climate, exercise, and management. When endurance and kindred qualities are found in men of a high order, they excel in those whose laborious and lengthened training is sustained by a sufficient quantity of sufficiently nutritious food. To this rule the history of cavalry and hunting horses is no exception. True, horses that can endure much are found where the fare is scant, but this does not prove that they would not be better developed and endure more had they fed on a better fare. The best hunters of Britain are raised in the rich lands of the south, and the best cavalry horses of the United States are bred in Kentucky. And in Russia the most famous chargers are reared in the valley of the Don. When certain constituents are lacking in lands otherwise rich, as lime, so favorable to bone formation, the above rule would not hold good. Neither in such a case would the hoofs be so good, but the quality of these is more determined by exercise than by diet. The two great essentials in building up constitution are liberal diet and persistent exercise, and mettle and endurance are the offspring of a strong constitution.

(2) The best climate for the development of such

horses is a mild one and not much exposed to the sudden vicissitudes of weather. The best light horses have been produced in such countries as Kentucky, and partly for the reason that they are less confined in the winter season and are therefore less enervated.

The food should be nourishing and liberal, particularly during the earlier years. The dams should be well sustained also by a suitable diet, more especially during the nursing period. A supplement of crushed oats and a little bran should be given to the colt from weaning time onward at least once a day, and now and then boiled flax added. This need not be given when grasses are succulent. They should be kept thriving, but not so loaded with fat as to incline them to sluggishness. The diet does not affect the feet nearly so much as the exercise. Standing much on a dry floor, or close confinement, are very injurious to hoof development.

(3) It is a fact that cannot be gainsaid that horses which in some other states of the union got but few fast trotters, succeeded admirably in this respect when acclimated in Kentucky. The inferior mares in these states may afford a partial explanation, but not a full one. It is more likely that the climate and rich nutritious food grown, have more to do in producing the result indicated.

(4) It is a positive advantage to allow colts to run in an open yard or shed during the day in winter, providing they can eat the principal meals alone or with not more than two in the compartment. The exercise will develop them and the exposure to a degree increase their hardihood, but exposure that leads to positive discomfort is neither kind nor profitable. It never serves a good purpose to keep animals on an under ration, which is usually the case when they are kept wholly in the barnyard, where, with them as with other quadrupeds, the only code recognized is that might is right.

(5) The time at which cows should be roused in the morning depends very largely on the time at which they get their last feed at night. The hour of waking is a relative thing, having regard first to the amount of time spent in sleep, and second, to the physiological law, from the sanctions of which there is no escape, that the rest of night is the most refreshing, and labor done after nightfall is the most wearing owing to the greater waste of nerve-power during its performance. Under natural conditions when pasturage is plentiful, animals sleep the greater part of the period of darkness and pasture when hungry, during the day. They don't usually sleep and eat at night alternately when doing for themselves, but take a long sleep undisturbed. They may be fed then with profit in the morning just so early after they have slept that they will not desire to do so again before they have well finished their breakfast. Undisturbed repose at night without a replenishment of food, is always better than disturbed repose with the supplement referred to. Regularity is of more importance in giving the morning or any meal, than the time fixed upon for giving it. The most natural time for feeding them is that hour at which they feel disposed to rise themselves, but when there are many mouths to fill and only one person to do it, it is necessary to begin early.

(6) The answer to this question is qualified by conditions as, (a) The nature of the soil; (b) the size of the farm; (c) location of the buildings; (d) the system of farming pursued and other attendant circumstances. Where the soil is light and the subsoil porous, the first method will be adopted with more profit than where it is heavy, as in the first mentioned instance, the nutriment from droppings will be more

readily absorbed and the evils of poaching, always calamitous to a clay soil, need not be feared. Where the farm is of medium size, foddering on needy pastures may be practiced with probably greater all round profit during the seasons requiring it, for, drawing the food from the field, and removing the manure under conditions requiring only a portion of each day from a man and team, would lessen the ability of both to perform a full day's work. Where the farm is large enough, the whole time of a man and team would be utilized in drawing food and removing manure, the cost of which is almost certain to be overbalanced by the extra amount of crop produced and the saving of expense in fencing. Where the buildings are central, drawing the feed and manure are always done at a much less expense than when they are not. Where grain growing is the object, foddering may be practiced with better results than where live stock or live stock products are the objects sought. We have large faith in that system that will soonest bury the manure where it is to stay, near the surface in light lands and deeper in heavier. The fertility of farms can best be conserved by practicing the soiling system.

(7) In this country we consider our pure-bred bulls too valuable to use in this way. They are kept in a box stalls the year round during the day, and some have a paddock strongly fenced in which they run at night in summer. If the bull is only a grade it may be wise to use him as proposed; we can see no serious objection to it, but working a bull till weary from day to day when the profit is to come from improved offspring, would defeat the object sought, particularly when beef is desired.

Annual Meeting of the Ayrshire Breeders' Association.

The annual meeting of the Ayrshire Breeders' Association of Canada was held in Kingston, 31st January, 1888, the president, W. Rodden, in the chair. This is the first meeting of the amalgamated society.

The president read a report of the work done since May last. The number of pedigrees received for entry were: From Ontario, 132, of which 59 were accepted; from Quebec and Manitoba, 120, of which 119 were accepted; total on record, Ontario, 379; Quebec and Manitoba, 119; total refused from Ontario, 73; refused from Quebec, 3. Receipts, \$239; disbursements, \$236.50.

The secretary read the annual report, in which he said that nearly all the stumbling-blocks in the way of pedigrees have been discovered, so that in future there will be much less trouble in this connection than heretofore. The Agricultural and Arts Association offer for Ontario to print the secretary's herd book on the same terms as they print the herd books of other similar associations, but they will have nothing to do with the revision of pedigrees.

The president introduced a comprehensive address by telling the story related by the poet Burns, in which were the lines:

"Where are you going my pretty maid?
I'm going a milking, sir, she said."

He believed that the Ayrshires gave more milk for the food used than any other breed, and that the grades are better breeders than the Shorthorn grades. He urged the appointment of an inspector at the show to see that cows were milked the night before being judged.

The secretary then read the constitution drawn out, and submitted it to the meeting. After a lengthy discussion it was adopted. The clauses connecting the association with the Agricultural and Arts Associa-

tion of Ontario were struck out, consequently the latter will not have representation on the Executive Board, and it will not be required to publish a herd book for the Ayrshire breeders, but will continue to record pedigrees.

After a long discussion on the standard, it was decided not to change it, when Mr. Rodden tendered his resignation as president and pedigree reviser, and submitted a letter which contained his reasons for so doing.

It was decided that those who did not enter animals before 18 months must pay double fees. The fees are 50c. for each animal, and for non members \$1; change of ownership, 25c. The constitution as a whole was adopted.

The following officers were elected: President, A. E. Garth, St. Therese, P. Q.; vice-presidents, T. Brown, Quebec; W. McCormick, Rockton, Ont.

Executive Committee—Quebec: John Hay, Lachute; George Kidd, jr., Petite Cote, Robert Ness, Howick, Ontario, D. Nicol, Cataract; Thomas Guy, Oshawa; W. Youill, Carlton Place. Delegates to the Toronto Industrial, D. Nicol and G. McCormack. Auditors, J. C. Snell, Edmonton; Geo. Moore, Waterloo. The next piece of meeting will be named by the executive

The Ontario Agricultural and Experimental Union.

(From our own Correspondent.)

The annual meeting of the Ontario Agricultural and Experimental Union was held in the college at Guelph, on the 16th and 17th of February. It was highly successful, so much so that the certainty of its permanent usefulness is being assured, and the good work it is doing is becoming recognized in all parts of the province.

The valuable papers read furnished much material for discussion, and from the information given and received, all present endorsed the sentiment that no one concerned in the advancement of agriculture could afford to miss the opportunity of attending.

We have reason to look forward with confident expectation to the day in the near future when the association shall do very much for the advancement of agriculture. Every year the college is sending out those who add to the ranks of this association, and many who left it in past years to follow their chosen profession, return, on these occasions, to impart to their fellow associates much of what they have gleaned, and to benefit in turn by hearing from others.

In addition to the subjects directly covered by the numerous important papers read, the question box added much to the success of the meeting; since it afforded opportunity for visitors—who are always welcome to bring up for solution such topics as might be thought most important. The hearty exchange of well-meant compliments accompanying the supper and toasts of the evening do much to promote that warm fellowship so well understood by all who have experienced the pleasure of college days.

The meeting showed the students more than ever the need of intelligence in farming, and gave them cause to look forward to the day when they may take part in directing others and stand with those who lead in the ranks of agriculture.

Amongst the many excellent papers read and discussed, no less than four were by ex-students of the college. They ran as follows: "Grain Farming," by F. J. Sleightholm, Humber; "Practical Suggestions on Farm Buildings," by F. E. Stover, Norwich; "Success in Growth—on What does it Depend?" by

Elmer Lick, Oshawa, and "The Importance of Practical Economy in Farming," by W. J. Stover, Norwich.

Farming in Manitoba.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I hope Mr. Davenport will not be under any misapprehension as to injuring my corns or my temper. I neither exaggerated, nor attempted to throw discredit on his statements generally. I simply stated facts equally true as his own, to prove that, though something remarkable may have happened to Mr. G. A. D. (and I may say in parenthesis that something remarkable always does happen on his farm), that because he is unfortunate, all farmers in Manitoba must have suffered reverses, is strictly incorrect.

With regard to his statements anent the "little stream" Assinaboine, I may simply say there are shallow places in most rivers and in many arguments.

"Do I know what a scrub is?" I do. The cow Mr. G. Augustus Davenport tried to buy off his near neighbor was a scrub, at least Mr. Davenport said it was. I repeat, Mr. Davenport was, and is, dissatisfied with the country (and the people in it), and means to leave as soon as he can, at any rate he says so.

If he will refer carefully to "the diary," he may find some remark of mine about "having to stop here," under the head of *jokes*; if not, "the diary" wants overhauling and rearranging.

I also did not say I did "things properly." I simply said I put in some oats and peas properly. (I may suggest the desirability of copying statements direct from the originals and not from "the diary," with a view to greater accuracy.) With regard to the calves etc., the matter looks severe on the weather and severer on me. If Mr. G. A. D. will again refer to "the diary" he may find that my animals died from injuries, due chiefly to a want of time and care on my part, and in one case to a want of skill or knowledge on the part of Mr. George Augustus Davenport, who injured it in castrating. I believe they did freeze, but it was after they were dead.

As matter for "the book" I may say I usually do give a little care and occasionally a little food, and do not, as the local "doctor" over a large district, remain at home in the cold weather enough to make two thermometric observations per diem, being generally a good way off the stove, the thermometer and "the diary" too.

Making "no pretention to intellect" I did not "see at a glance" the drift of Mr. Davenport's letter, and supposed it was written in the same spirit as his remarks are often made, and that is *injuriously*.

In conclusion I may point out that in showing my misfortunes and errors, Mr. Davenport unconsciously uses an argument to defeat his own case, for if I, after all these drawbacks, still hold a good opinion of the country, I must probably have good reason.

In attempting to let this country have fair play I have been drawn into writing to a greater length than I intended, but we want the truth, the whole truth, and nothing but the truth. To Mr. Davenport I say *Requiescat in Pace*, and the neighbors say *Amen*.

GEO. E. WALKER.

Farlands, Millwood, Man.

Destroying Vermin on Stock.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR—Some time ago I saw an enquiry in your paper as to the best remedy for vermin on live stock, and I hereby give you the result of my experience. To destroy lice on cattle, take, say twenty five cents worth of quassia chips, which can be got at any drug store, boil them in about two quart. of water until the latter is reduced about one half, strain off the water, and wash the parts of the animal infested, and in three or four days repeat the application in order to catch any that may be subsequently hatched, as the liquor will not kill the nits. Do not throw away the chips, as they will do for a second or third boiling. You will find this a remedy that is cheap, safe, easily applied and effectual.

To destroy ticks on sheep. For more than thirty years I have used arsenic prepared as follows. To one pound of arsenic use two pails of soft water and one and a half gallons of soft soap, as water alone will not dissolve arsenic, and simmer over a slow fire as near boiling point as possible, watch it, because it will rise over the kettle if allowed to boil. Use a large vessel. To this add twelve pails more soft water

and it is ready for use. Mode of application. About a week after the sheep are shorn, dip the lambs in this liquor, we have a large tub or trough large enough to hold half of this at a time and a lamb in it, and a fixture at the end to rest the lamb on after dripping. Squeeze out all the liquor from the wool and let it run back into the tub. In dipping let one man take hold of the lamb with one hand each side of the jaws so as to keep its head above water, two others taking hold of its legs. See that the whole of the lamb is wet except its head. By being careful of the mixture this quantity will suffice for forty or fifty. My neighbors and I have used this remedy for over thirty years and never had an accident from poisoning. If you keep the sheep from mixing with others you will have very few ticks next year, and it is only an hour's work to apply it.

JOSHUA NORRISH.

Eden Mills, Ont.

Ensilage.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I should like through the medium of your excellent LIVE-STOCK JOURNAL to make a few remarks. As the general treatment of farm stock is becoming a very engrossing subject, to the farmer of moderate means, the question of ensilage is coming prominently to the front. It is now claimed that ensilage can be made, and kept in a perfectly fresh and sweet condition in a common frame building closely boarded and made air-tight. Now if ensilage is going to be anything near the advantage claimed for it, the sooner and the more we farmers know about it, the better. If a suitable house on a small scale could be built at from \$150 to \$300, it seems as though that might be within the reach of almost any farmer; and if once fairly introduced, the majority of farmers would not be slow to take hold of it.

What I would like is for you, Mr. Editor, or some one of the readers of the JOURNAL to give the result of your experience or knowledge on the subject. If it can be brought into use as claimed, it might double the productiveness and profit on many farms. As this is more of a dairy than a grain-growing section, we are the more interested.

There are other improvements in keeping farm stock that need not be discussed here, such as cooking feed and warming water, which is at present far from practicable. For a dairy of 20 or 30 cows, perhaps 45 head in all, with our present antiquated buildings, we cannot do it. What I hold to be good policy is to get on the right track and way of improvement, and make haste slowly. A common farmer cannot afford to rush into untried and expensive experiments; better to feel his way.

Now, Mr. Editor, if you see fit to make any use of this in the JOURNAL, it may call forth a response that will be of practical value, from some quarter.

Oxford township.

The Basis of Distributing Prizes at Exhibitions.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will you please favor me with space in the JOURNAL for a few lines in regard to the method of distributing prizes at the leading shows of Canada? In the cattle classes the prizes are so arranged that where the competition is not so strong the same amount of prize money, is not awarded as in the stronger classes. The Shorthorns are the most numerous by far, and it is only right that they should get the largest prizes awarded in the cattle classes.

Now, Mr. Editor, I think it would be only right that the Leicester sheep should get the same preference in the sheep classes, as there is stronger competition with them. I think I am safe in saying that this class was twice as strong as any other at the Toronto Industrial last year. There were eight or nine exhibitors in the Leicester classes, and only about two in three of the other classes, and yet they got the same amount in prizes.

When one fits an animal where there is a strong competition it is a greater task than to put an animal in shape to take a prize in a class with but little competition. For that reason I think the exhibitors of Leicesters should get better awards in their class. Hoping that I am not trespassing too much on your space,

A SUBSCRIBER AND EXHIBITOR.

Give the Scrubs No Quarter.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Long may the JOURNAL wage war among the scrubs. I thought so much of the pure Canadian cow Scrubess that I cut her picture out of the JOURNAL and put her in a nice frame with a suitable glass in front, and hung her up in my room alongside of Lady Fragrant, the Booth Shorthorn cow. I wish I had the whole herd of the natives that were exhibited at Sherbrooke, 1886. I would have had them all framed. I show Scrubess to every scrub man that comes to see me, and I say to him, "Look at the contrast." They answer, "There is lots of milk in Scrubess." I tell them, "The milk will stay there, it will never be milked out." I wish I could send every scrub in the world to Chicago and let the anarchists blow them up with dynamite, which would surely be the last of them.

WISCONSIN.

Veterinary.

Strangles or Distemper.

BY F. C. GRENSIDE, V. S., GUELPH, ONT.

This is an affection peculiar to the horse tribe. It has been looked upon by some as a necessary disease—that is, that every horse is certain to have it during some time of his life. Certainly a very large majority of them are subjects of it, but undoubtedly some escape its attack.

Another popular impression is, that it is a disease of youth, but although most horses suffer from it before the process of dentition is completed, still we see in practice many instances in which not only middle aged, but old horses, develop the disorder.

It is not a common experience for it to attack an animal more than once, but a second and even a third attack has been noticed.

For a concise definition of the disease, it is hard to improve on the old one, viz.—that it is an eruptive fever.

Only one horse in the stable may take it, but as a rule first one, then another, and often a number at the same time, contract the disorder, until it goes all through the inhabitants of a stable. It is seldom when it is well established that it ever misses a colt, in an establishment at any rate.

It is a disease that in many instances develops somewhat slowly; a colt as a rule shows a more or less lengthened period of unthriftiness; the bloom of health seems to be lost. There is generally a dryness of the coat, the belly is tucked up on account of the animal feeding daintily, and there is a loss of flesh. The urine voided seems small in quantity and of a milky appearance and consistence. The solid droppings although perhaps not unduly dry, have an unnaturally foul odor.

The feature that strikes the casual observer most strongly is want of thrift, and it may be the only symptom that attracts his attention until the subject begins to cough and it may be discharge at the nose. At the period at which the cough makes its appearance, it may not be an easy matter to say definitely whether it is a case of sore throat or strangles, unless the premonitory symptoms have been pronounced. But if there has been a preceding unthriftiness, it is generally safe to decide that it is strangles in its incipient stage.

After several days coughing, the characteristic symptom of the disease shows itself by the appearance of a swelling of varying size, but evident soreness, between the branches of the lower jaw. It is a hard, tender, well defined swelling, which increases in size as a rule, until it becomes soft in the centre, and the hair falls off the soft portion.

This softening and falling off of the hair, indicates that matter is present in the interior, which the breaking of the skin and its discharge spontaneously renders evident.

In some instances there is a tardiness in the formation of matter, and the swelling may even disappear without it forming.

Although the abscess in the jaw is the distinctive sign of distemper in the horse, it is not it alone that gives the animal discomfort; in fact, in most cases, the inflammation in connection with the throat causes most suffering. The inflammation and resultant swelling narrow the canal for the passage of air, and often give rise to distressed, labored and noisy breathing. The noise made in breathing can sometimes be heard from twenty-five to fifty yards away.

Not only is breathing interfered with, but the act of swallowing is rendered impossible in some instances. A small quantity of solid food may be taken, but it is seldom swallowed, and water may be partially swallowed, then returned through the nose. The water emitted from the nose varies from a small quantity to one of great profuseness, according as the attack is a mild or violent one. The difficulty in swallowing and breathing gives rise to the appellative, strangles. Unless the throat symptoms attain great severity, this form of the trouble is seldom serious; in fact, it often runs its course in ten days or a fortnight, and the animal is convalescent, beginning to pick up in condition rapidly.

In addition to the symptoms already mentioned or associated with them, or following them, we may have some others of a more serious nature. The symptoms already described are those of what is called simple or regular strangles, or the usual manifestation of the disease. But as has been said, another form of this ailment occurs, which is of a more serious character, and is usually designated irregular strangles. In this phase of the trouble, the swellings or abscesses present themselves in more unfavorable situations, unfavorable, inasmuch as the tissues or organs which they involve are more important as regards their offices, and more difficult of satisfactory treatment on account of their position in the animal economy.

In addition to the abscess between the branches of the lower jaw, or without its occurrence, we frequently find them forming further back near the throat, but a favorite situation is below the root of the ear behind the border of the lower jaw; in fact, involving the salivary gland situated there.

Sometimes the swellings occur in the cheeks, and very occasionally on the poll. They may be independent of the head altogether and present themselves at the shoulder, between the base of the neck and the shoulder joint. In this situation the swelling is usually very large, and no evidence of pointing shows itself, the walls of the abscess being very thick.

There is nothing particularly dangerous about the abscess locating in this situation, but the local treatment necessitates a certain amount of knowledge and care, and is likely to call for attention for some time. Not very unfrequently the eruption occurs in the chest or belly, in connection with vital organs, and then such a case is almost certain to terminate fatally, for it is seldom that the indications are sufficiently definite as to the exact location of the abscess as to justify surgical interference, or render any likelihood of it being successful.

Occasionally the groin has been observed to be the seat of the abscess.

Undoubtedly the most serious complications of the disorder are to be found in the severity of the throat symptoms and the involvement of important organs in

the local swellings. The morbid condition of the blood although serious and causing marked constitutional disturbance, is not found practically to be so much a source of danger as the untoward complications mentioned.

(To be Continued.)

Swollen Jaw.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will you please tell me in your next issue what is the matter with this steer. It had a big lump on the back end of its lower jaw in the summer, which was very sore. We tried to get iodine on it, but it was so tender we could not do much with it. Last winter we had a cow afflicted with the same complaint. It fills up with matter, and after awhile bursts; then after awhile it dries up, but takes a long while. If you could find some room in your next issue to tell me the cause, name, and treatment of this complaint, I would be much obliged, as it makes them lose flesh very considerably.

EDWARD. H. DEGEX.

Walford, Feb. 7, 1888.

ANSWER BY F. C. GRENSIDE, V. S., GUELPH.

Recent investigations have thrown some light upon the nature of these swellings, so frequently present in the region of the lower jaw of the ox, and sometimes on the upper jaw. In some instances the bone of either the upper or lower jaw is primarily the seat of the trouble. The disease of the bone extends, and involves considerable of that structure, and also the soft tissue immediately surrounding the diseased bone; finally the skin and subcutaneous structures immediately over the swollen bone burst, and discharge a bloody-like material, from a raw, ragged-edged wound. The teeth in the diseased jaw usually become loosened, and the animal can only masticate imperfectly, consequently falls off in condition.

This form of the trouble is usually incurable, but I have seen blistering in the first stages occasionally do good. Removal of the diseased bone is recommended by some authorities, but it is seldom practicable.

There is another phase of the same disease, of which the case described in the question, is, I think, an example.

A round swelling occurs sometimes between the branches of the lower jaw, but usually in the region of the throat, it may be up toward the root of the ear. It increases slowly in size, but is always more or less painful, and hard to the touch, for a considerable time, but may subsequently fluctuate on pressure, indicating the presence of matter. It will usually burst of its own accord, but whether this occurs, or it is opened by the knife, there will be a discharge of white, flaky, clotted matter. Matter will be present as a rule, for a considerable time before fluctuation is perceptible, but in the first stages when the growth is small, none may be present. Before matter has formed a blister has been found to dissipate the swelling in some instances, but if matter is present, it is better to open the sac and give it exit. If proper measures are not adopted, the healing process is very tardy.

I have found the following treatment very successful. After the sac is thoroughly cleansed of matter by syringing out with water, take a solution of corrosive sublimate, in the proportion of one drachm to four ounces of water. Syringe some of this in with a glass syringe once a day, and prevent it from escaping by stopping up the opening with cotton batting. Repeat this once a day for several days, or until the interior of the sac begins to assume a healthy aspect; it will then heal rapidly as a rule.

That form of the disease in which the bone is involved was until recently considered to be of a cancerous nature, while the other growths were generally considered to be tuberculous, and it is likely that some of them are, but it is pretty certain that a good many of them are not.

Dr. John, of Dresden, found in these growths small vegetable organisms—actinomyces. These fungi have also been found by other observers, but their true importance was not determined until John produced the disease, by inoculating healthy subjects in various parts with the vegetable parasites, from a tumor of the jaw. He also produced the disease by injecting the parasites suspended in water into the veins of cattle. Other investigators have confirmed his observations.

At present there seems to be no definite evidence showing how these organisms, which are considered to be the essential elements in the production of the disease, ordinarily gain access to the system and to the parts in which they localize themselves, and set up irritation. It is considered to be to a certain extent contagious, but is certainly not so to any marked degree.

Steele quotes from an account given by Jansen, in which this disease occurred in an enzootic form in the northern coast of the island of Seeland on reclaimed land. The cattle were fed with mixed forage, and especially barley grown on land but little cultivated; almost all became affected.

From my own experience I am of the opinion that this disease is to some extent hereditary; and it would seem that the germs of it must be conveyed into the system with the food.

The Farm.

It should be borne in mind by correspondents that we cannot undertake to publish any communication without knowing the name and address of the writer. Of course the name will never appear, when it is so requested.

ANY who forward the names of subscribers will confer a great favor by writing each name and post-office distinctly. In many instances it is impossible to decipher them correctly, which is sure to cause difficulty sooner or later. We are all too prone to forget that our writing is never so easily deciphered by others as by ourselves.

WE have again to enlarge the JOURNAL, which makes the sixth time since October 1st, without any increase in charge to our readers, and yet we have on hand much valuable information awaiting insertion. Our numerous correspondents who are interested will please accept this as our apology for the non-appearance of their contributions. We never throw away good matter, however long it may be held.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL. Formation of Soil.

By J. A. CRAIG, ONTARIO AGRICULTURAL COLLEGE,
GUELPH

"Nature's great parent" whose unceasing hand
Rolls round the seasons of the changeful year;
How mighty, how majestic are thy works!
With what a pleasing dread they swell the soul
That sees astonished! and astonish'd sings!

THOMPSON

Almost everybody of a meditative turn of mind has more than once in his life tried to account for certain natural phenomena which he has observed. This question of soil formation has nonplussed the minds of many who have not had the chance to obtain information from sources other than their own observation. To clearly define the action of each agent that aids in the formation of soil requires the pen of a master scientist; but my purpose is to try to give in a general way their influence in this direction.

At one time, so the stone book of geology tells us, the greater part of the North American continent was flooded with a vast ocean. Then a narrow band of Laurentian rock extended from what is now the Arctic Ocean to Labrador, forming a V-shaped nucleus around the present Hudson Bay. It was against this that the waves of this mighty ocean lashed themselves in their fury; and their moanings were swallowed up in the plenitude of space which formed its canopy. Successive layers of sediment were laid against this nucleus; or, as the geologist would say, leaves were added to the book of geological records, until at last the ocean was limited to nearly its present area and position.

This work completed the denudating agents began to act, disintegrating rock and forming soils out of what the ocean had built up, and also out of what had existed before the ocean had begun its work. Chief amongst these agents were glaciers. These ponderous masses of ice were formed in the higher altitudes, where there was perpetual snow. We have accounts of them in the Alps at the present time fifteen miles long, half a mile to three miles broad, and 100 to 600 feet thick. Picture to yourself a body of this size wending its way slowly down from these elevations, breaking, grinding and crushing all material with which it comes in contact. In their passage down, these glaciers would become loaded with pieces of rock of all sizes, which would fall from overhanging cliffs and banks. These lodging in the fissures of the glacier would work their way to the bottom of it, and aid in the grinding of the underlying bed of rock over which the glacier was passing. The temperature becoming higher as the glacier descends would soon cause it to melt, and its load would be scattered over the country. Torrents of great force would emanate from the glacier, carrying the finer material some distance, while the coarser would be deposited in the immediate vicinity. Go where we will in Ontario we find these foreign boulders, more or less round and smooth—the result of the attrition they have received.

We have other agents carrying on their work before our eyes every day. The oxygen of the air uniting with other elements of the solid rock causes the whole structure to crumble. The action of the oxygen in this case is the same as that which rusts a shovel when it is exposed to the weather. Our hardest rocks generally contain some iron; this being attacked by the oxygen soon brings about the decay of the rock.

All rocks contain soluble and insoluble elements, the latter of which can be dissolved out by the rain. It is thus that such rocks as granite, gneiss, etc., contribute to the formation of soil, clay being derived from this source. Rain-water has great corroding power on limestone. Pure water does not possess this dissolving power, but in descending from the clouds it absorbs carbonic acid gas and nitric acid, which gives it this quality; by adding a little acid to a piece of limestone, the part this factor plays in dissolving limestone can be easily seen. Sandstones and slate are easily decomposed by rain-water. These consist of small particles held together by a cementing material (generally carbonate of lime or limestone), which being soluble is dissolved out, and the rock in the case of sandstone forms a sandy soil, while the slate disintegrates into a pure clay soil. Just as the strength of a chain is measured by the strength of the weakest link, so is the ability of the rock to resist the rain determined by the most soluble constituent of it.

Again, frost and rain-water in conjunction are active agents in rock disintegration. By making a visit to any quarry the way these agents act can be easily noted; large fissures run in all directions. Now, if rain-water lodges in these cracks, owing to the fact that water expands when cooled below 4° C., the rock being unable to resist the immense pressure splits. At the bottom of any ravine, the sides of which are composed of rock, large masses of broken rock may be seen which has been rended from the main body through the influence of these agencies. Porous rocks—and there are many so—are decomposed in a similar manner; the moisture being absorbed only waits for a frost to cause the expansion of the water, and thus separate the particles of the rock.

It is a well-known fact that if a pitcher of water is placed outside on a cold winter's night, it is sure to be broken before morning, the cause being the same as that which results in the splitting asunder of the rock.

Being susceptible to the influence of heat and cold, rock will undergo expansion and contraction similar to other substances. Arctic travellers tell us of pistol-like reports being heard in northern regions, caused by large masses of rock being ruptured through the influence of these agents. Who has not in our own land heard similar sounds coming from a frozen river on a clear frosty morning in mid winter? These are due to the contraction of the ice which is caused by the intense cold.

Slow, but ever working, agents are to be found in the plant kingdom. The vitality of some of the lower orders of plants (mosses and lichens) is such as to enable them to live under conditions adverse to plants of a higher organization. It is by sacrificing their lives for the sustenance of higher plants that these martyrs aid in forming soil. In any field where boulders abound these silent workers may be observed, in some cases completely covering the boulders. Go into a cemetery, single out the hardest and best polished tombstone, and even on this these plants will be found. Scrape them off, and the surface will be rough where they have been, and appear as if eaten by an acid. These minute vegetable organisms have been justly termed the "heralds of higher life." Larger plants by their decay add considerable to the soil, and what they contribute is of great benefit to it. All vegetable matter by its decomposition forms humus, and this contains when dry about four per cent. nitrogen. Organic acids are produced in this decay, and these aid in rendering soluble the mineral constituents of the soil. The extent to which soil may be formed by plants is easily seen in the forest; here leaves, twigs, branches and the trunks of trees have been forming a top soil for ages.

Further, the animal kingdom has not been the least generous in contributing to soil formation. Chief amongst these agents is the common earth-worm. Darwin has given these insignificant animals (to the unobservant mind) a prominent position as soil-formers. He says: "In many parts of England a weight of more than ten tons of dry earth passes through their bodies and is brought to the surface on each acre of land. They burrow to a depth of six feet, thus allowing the carbonic acid and the oxygen of the atmosphere to penetrate to these depths and disintegrate the particles of earth." The casting of these worms can be seen in almost any field, piled up in little mounds close to the entrance of their burrows. Type after type of plants and animals have existed and had their day, each surrendering their substance to increase the covering of the earth.

"Oh, Nature! gracious mother of us all,
Within thy bosom myriad secrets lie,
Which thou surrenderest to the patient eye
That seeks and waits."—MARGARET J. PRESTON.

"I find the JOURNAL a welcome visitor out in the west. I take several papers, but I like the JOURNAL best of all."—J. H. Turner, Bottineau, Dakota.

"I have taken your JOURNAL from the first publication and like it better than ever. Would not be without it for five times what it cost."—John Glaspell, Lafontaine, Ont.

"I am proud of the LIVE-STOCK JOURNAL and pleased that I have been able in a humble way to help in extending its circulation, being satisfied that having once found its way into the homes of our people, it will be found in nearly every case to be an indispensable necessity ever afterwards."—John Douglass, Tara, Ont.

Report of the Judges on Prize Farms for 1886.

(Concluded.)

MAPLE GROVE FARM.

We heard of a man once who took a walk to Collingwood, on the Northern Railway train. We fared somewhat better, for leaving Hamilton early on the morning of the 21st July, we reached Stayner by noon, and spent the p.m. of that day in viewing the farm of Mr. Wm. Robinson, Lots 4 and 5, 11th Con., Township of Sunnidale, County of Simcoe, and which lies 2½ miles east from Stayner, on the highway to Barrie. Sunnidale is almost a valley, a part of the depression lying between the waters of Lake Simcoe and the Georgian Bay, with highlands both on the east and west, the Blue Mountains of Nottawasaga 12 miles on one side, and the highland leading to Penetanguishene on the other, being distinctly visible. Its soil is evidently, in many parts, a rich deposit that only unlimited abuse can spoil. We were shown a field on a neighboring farm that had been cropped with wheat for 34 years, with one exception, but its capabilities are much impaired now, and how could it be otherwise? What a shame that farmers could find it in their hearts thus to whip the willing horse to death! Maple Grove contains 257 acres, and lies nearly in the form of a square, it being a corner lot. Along the Stayner road are four tiers of fields, and three tiers in depth, two transverse private roads affording access to these. The fields contain from 10 to 20 acres each.

The woodland is on the eastern corner, and contains about 100 acres of spruce, rock elm, white elm, lots of maple and beech, and some tamarack; about one-third of the timber is rock elm, of a wonderful growth, and betokening great strength of soil. A pretty little stream runs across the farm, two branches uniting and running north-westerly in a deep narrow bed, beneath leafy forest bowers. A dam has been thrown across this little trout stream, and on the pent up waters a boat has been launched, which, to the young, who see only the sunny side of life, as they sail beneath its forest shades, it must seem a veritable fairy land. Why should not farmers have fresh fish for dinner, a sail in the quiet shades in summer, and a skating rink in winter, all under their own control, if they so desire it?

The soil of this farm is a clay loam, seven feet deep, and resting on a sub-soil of dry sand, to the depth of 20 feet. No under-draining is therefore required over this everlasting filter. It is very productive, especially in the matter of wheat. The total acreage of grains for the last three years is as follows:—Wheat, fall and spring, 125 acres—4,100 bushels; average, nearly 33 bushels; barley, 15 acres—540 bushels; average 36 bushels; peas, 19 acres—604 bushels; average, 32 bushels; oats, 32 acres—1,440 bushels; average, 45 bushels; which is certainly a splendid showing.

The summer fallow is an important feature of this farm. It is ganged in the fall, and the next season gets three ploughings, along with gang-ploughings in addition. It is hard work to kill thistles in this open sub soil. The manure, after having been turned in the yard, is applied here.

The rotation is—fall wheat on summer fallow, then spring wheat, which is seeded to grass, about seven pounds small red clover (some alsike now), and three to four pounds of timothy being sown to the acre. The grass is mowed two years, and pastured one, and then turned over for peas or oats, followed by barley, to be in turn succeeded by fall wheat, and then summer fallowed. This is a severe rotation, which in many sections would soon bear bitter fruits.

The fences, mostly stake and rider, are the best of the kind that we have seen. They are made of strong cedar rails and stakes, equally strong, set 1½ feet in the ground, and some of them have stood thus for nearly 20 years: The private roads are good. The water supply is from wells, save from the rivulet, and some tree-planting has been done, while the orchard and garden are but medium, and obstacles to cultivation are nearly all removed.

The buildings are ample, but of the over ground order, and are neatly kept. They enclose a rectangle save on the south, and provide shelter in winter for all the stock of the farm, and for the implements. The stables are all lined. The hen-house is especially convenient; a slide under the roosts runs the droppings into a trough below, and the hens get up to the perch on an ascent with slats. There is also a self-

feeding box, nests for laying and hatching apart, etc., etc.

"Maple Grove" is essentially a grain-growing farm. The stock, therefore, is only medium, consisting of 6 milch cows, in all 33 head of Shorthorn grades, and 12 sheep, and a sufficient number of good working horses. Some beef cattle are fattened, but a large portion of the grain is sold, one of the least commendable features of Mr. Robinson's practice, viewed in the light of futurity. While it would not be wise to condemn the practice of grain-selling in all cases, it cannot but tell adversely, more or less, when long continued. If meat production and dairying have been made profitable in sections where grain grows sparingly, how much more may they be made profitable where the land produces naturally by handfuls!

Mr. Robinson only commenced here 20 years ago, clearing the land with his own hands. When we consider the limited time of his location, and the present condition of his farm, we must accord him much credit, but time, more stock, and other buildings are requisite to assign him a place in a sweepstakes contest.

Some idea of the labor of this work of farm-judging may be formed when we mention that in visiting the 18 farms entered in competition, we each travelled by rail 1,901 miles and drove 254 miles, visiting four of them a second time, and completing the whole in 14 working days. While in one instance three farms were got over in a day, in another two whole days were used in visiting one farm, and a journey called for of 234 miles by rail. We feel that however imperfectly the work assigned us by your Association has been performed, we can justly claim that no time was wasted nor no expense entailed that could have been avoided in doing it.

Before closing this report, we have thought it fitting to draw attention to the following observations, which we think, in all fairness, may be deduced from our experience in this work.—

(1) The high character of the farming generally in the places entered in competition is very cheering. We doubt if so large a number of equally well tilled and well managed farms can be found on an equal area on the American continent. Where the leaders are so well abreast, the rank and file must follow.

(2) It is not wise to lay down cast iron rules in many respects to guide farmers in their methods where there is much diversity of soil, and a difference of climate. It would not be prudent to fix the rotation of crops in Raleigh, with its stores of fertility, on the basis of that practiced in Pittsburgh, where nature is less bountiful.

(3) Nevertheless, there are other features of practice of universal application. (a) Stock-keeping, the basis of all good farming, is one of these. It is a fact, and one surely of much significance, that in almost every instance in the competition of the last seven years, the prize-winning farms practised stock-keeping largely, in one or other of its forms. If the money spent in making these awards have the effect of rivetting the attention of the rank and file of our farmers to this one fact, it will draw for the country more than 100 per cent. per annum, compound interest, in perpetuity.

(b) An auxiliary to successful stock keeping is suitable accommodation. Where we found good stock, in every instance we found suitable accommodation, and vice versa, and one feature of this accommodation was basement barns. These need not be built in a bank, of necessity, but they should be built. While it is true that "Kelvin Grove" has adopted this feature only in a modified form, it is equally true that this alone nearly cost its owner a forfeiture of the grandest award ever made hitherto to any farm in Canada. (c) Everywhere the extermination of weeds is essential to success. The sweepstakes farm is perhaps the cleanest farm in Ontario, and the farms lowest in the competition were invariably those that produced the most weeds.

(4) Under-draining is a leading spoke in the wheel of Canadian agriculture. The best farm in the Province is perhaps the best drained, although some farms do not require draining, but they are more voracious in appetite for food supplies.

(5) Fertility may be increased without the use of fertilizers. "Kelvin Grove" is richer than it was years ago, so of "Huntingford," and so of "Balsam Lodge," and others in the competition, and yet artificial fertilizers have been but little used. The increasing sources of fertility have been drawn from the soil itself, a provision in nature for which we can never be sufficiently thankful. If farms, then, become less and

less productive, the criminal management (viewed in the light of country and posterity it is criminal) must be laid at the door of the tiller. We do not say this to discourage the use of fertilizers, but to remind our farmers of the resources of their soils, which in very many instances may be drawn upon at a less expense.

(6) Economy is an important element of success. We do not mean that parsimony that refuses to properly equip a farm, but that which cares properly for implements, and makes the best use of food, and so of other details.

Thanking the competitors for the courtesy invariably shown us, we shall leave other lessons that may lie upon the surface of this very imperfect report to be gleaned by the readers, hoping that the crumbs thus cast upon the water may bear fruit, both in the near future and after many days.

JUDGES, { JOHN I. HOBSON.
THOMAS SHAW.

Firewood in Ontario.

(Too late for February.)

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Perhaps you can afford me room for a reflection on the above subject, which the following paragraph has suggested:

SCARCITY OF FUEL IN KANSAS.

There was last week great suffering in Kansas for want of fuel. Much of that State is treeless, and wood is not to be had. Corn is sometimes used there for fuel, but the crop was a failure this year, and the unfortunate settlers were deprived of that resource against the inclemency of the winter weather. In some counties the inhabitants had nothing to depend upon but a scanty and uncertain supply of coal. Some of them had to travel thirty, forty, and fifty miles to a railway station for coal, only to find that there was none to be had. The roads were worked to their utmost capacity, yet they could not supply all who needed fuel. In one place the cars were stopped by the citizens, who were ready to perish, and they helped themselves to what they wanted. Many persons have been frozen to death, and many who have not actually perished with cold have endured great suffering.—*Montreal Star*.

This was two weeks before the late windstorms in the west. Returns from a great number of Ontario townships have brought out the fact that throughout settled Ontario the average amount of firewood standing is but fifteen years' consumption at the present rate of using, when most of our best farming sections will be in the same position, as far as fuel is concerned, as Kansas, which has great forests near her, as Ontario would still have, but in both cases they are so distant that carriage costs more than will purchase coal. When in Kansas last year, I found people doing as they do here. The wise were planting groves of maple, hickory and ash; the others were not—they were even cutting down, dragging long distances and burning, the few great trees which fringe the river banks.

The moral to Ontario is obvious. Why should not the coming spring witness a great tree-planting movement?

R. W. PHIPPS.

Toronto, Jan. 27, 1888.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Weeds.

BY PROF J HOYES PANTON, ONTARIO AGRICULTURAL COLLEGE, GUELPH.

IV.

CLASSIFICATION OF WEEDS ACCORDING TO NATURE AND HABITS.

HYPERICACEAE (ST. JOHN'S-WORT FAMILY.)

Herbs or shrubs with a limpid or resinous juice: leaves opposite, entire, simple and chiefly sessile, punctuate with translucent and commonly some blackish dots.

Hypericum Perforatum (St. John's wort). This presents a somewhat shrubby appearance, and is very common along the railway track, where its yellow flowers present an attractive appearance. In some places it becomes a nuisance, and as

the root is perennial it is not easily destroyed, but a rotation followed, in which the land is thoroughly worked, will succeed in extirpating it. The spotted appearance of the leaves, especially when held between the observer and the light, together with the innumerable stamens in its yellow flowers, serve to distinguish it from other flowers of a similar color.

CARYOPHYLLACEAE (PINK FAMILY).

Herbs of which the stems are somewhat enlarged at the joints; leaves mostly opposite, and entire; flowers terminal, consisting of four or five parts.

Some very beautiful flowers are found in this group, e. g., the pinks and soapworts.

Lychnis Githago (cockle). A beautiful flower, but in the cornfield it has lost its attractions, and is considered a pest. Its seeds are not so readily got rid of in cleaning the wheat as some, so that it injures the quality of the flour. The plant has a grayish look; is about 2 to 3 feet high, and bears beautiful violet-purple flowers. The seeds have a black and an irregular form, and should be looked for in seed wheat. If it appears in the field its bright purple flowers show it, and it should at once be pulled before seeding. Being an annual, vigilance will soon extirpate it.

Lychnis Diota (common campion). This weed has a white flower, which in general form resembles the cockle, but an examination of the flowers shows there are two kinds, those on one plant bearing stamens, those on another pistils. The plant is not very common, and seldom usurps the place of others, where thorough cultivation is practiced.



COCKLE.



PURLANE.

Silene inflata (Bladder campion). This plant resembles the preceding in the color and form of the flower, but there is a marked difference in the calyx or outside floral cup, which is somewhat of a bladder-like appearance, and veiny. This genus has only three styles while the *Lychnis* has five. In some places it is quite common, but is not difficult to suppress.

Cerastium Arvense (Field Mouse-ear Chickweed). This is usually found in dry fields, and is sometimes very common. Leaves hairy and small; white flowers with five notched petals, twice as long as the sepals; the stems are also hairy. Its most common place is in sandy fields and waste places.

Stellaria Media (chickweed). The stem of this annual is weak and spreading, with a line of hairs; leaves somewhat oval and many small star-like white flowers, and is generally found growing on damp ground. It is quite hardy, but it is readily checked by under-graining and frequent cultivation.

PORTULACACEAE (PURSLANE FAMILY).

The leaves of this plant in this order are very succulent; the flowers are regular, but there are fewer parts in this outside whorl than in the next. The beautiful portulaccas, whose flowers are so numerous and varied in color, also belong to this order.

Portulaca oleracea (Purslane). The stems of this annual lie on the ground and spread; the oval leaves are very thick and juicy. In July small yellow flowers appear, and the plant spreads rapidly, becoming one of the worst weeds in the garden to attack. So succulent is this plant that it will continue to perfect its seeds long after separation from its parent root. A day's sun will hardly wither the plant, but may ripen and shed many of its seeds. When pulled or hoed it should be gathered into a heap and destroyed. In hoeing it would be well to avoid tramping upon it, or

if not removed it is almost sure to continue growing, unaffected by its temporary disturbance. It is seldom that it proves a nuisance elsewhere than in the garden. It has wonderful vitality, and may lie for days root up, without being destroyed. Hoeing is not sufficient, unless it is completely overturned and allowed to wilt beneath a scorching sun. The best remedy against purslane is continual vigilance and incessant use of the hoe.

MALVACEAE (MALLOW FAMILY).

An order in which some beautiful flowering plants are found, such as the *Abuleton Hibiscus* and hollyhocks. A very striking character in the family is that the flowers have many stamens, all uniting by their filaments to form a tube around the pistils, and thus crowding the anthers together.

Malva rotundifolia (mallow, cheese-plant). This is also a great trouble to gardeners, and seldom invades the open fields. It delights in the rich loam of the garden, and retains a good foothold where once rooted. It has a perennial root which enables it to continue from year to year. Its long creeping stalk contains a large amount of nourishment, which enables the plant to keep up life under adverse conditions. It is known by its creeping stem, bearing round leaves, among which from May to August may be seen white flowers about half an inch in diameter,

possessing the peculiar union of the stamens already referred to. When mature the seeds form a structure not unlike cheese in form, and hence the name sometimes given—cheese-plant. It must not be allowed to go to seed, and as far as possible the leaves kept from forming. If these hints are followed, the perennial root will soon fail and the plant be exterminated.

M. sylvestris (high mallow). This species is not common as yet; the stem is erect, 2 to 3 feet high, hairy, bearing pale purple or blue flowers, much larger than the preceding.

M. moschata (musk mallow). The stem is erect, 1 to 2 feet, somewhat hairy; the leaves are more or less parted or cut into slender linear lobes; the flowers are about 1½ inches in diameter, and usually white. This plant is frequently seen by the roadside in some parts, and can scarcely be considered a serious weed as yet. It has no doubt escaped from gardens to its present place.

ANACARDIACEAE (CASHEW FAMILY).

Attention is called to this order on account of two species here, that possess poisonous characters. Where such are found, they should be destroyed.

RHUS VENATA (SWAMP-OR POISON SUMACH).

It usually grows to quite a tree in swampy ground; from 6 to 18 feet high; smooth, with obovate leaves, 2 to 3 inches long, arranged pinnately (feather-like along the leaf-stalk). The leaves become very highly colored in autumn; flowers greenish. It bears some resemblance to the common sumach, but is very poisonous.

R. toxicodendron (poison ivy), another poisonous plant, sometimes seen in fence corners (poison oak), is an erect variety, 2 to 6 feet high, with large leaflets, variously toothed, but in the climbing variety (poison ivy) the stem may reach many feet, sometimes ascending tall trees by means of its rootlets. The leaflets are 3 to 5 inches long, and are in clusters of three; this distinguishes it at once from the Virginia creeper, a beautiful and harmless plant, on which the clusters contain five leaflets. Some persons are very subject to the poisonous effects of these plants, so much so that they are affected if in the vicinity even, but it is only when the plants are handled or touched that most are injured. There are others, however, who are not at all affected by being in contact with them. Both species should be destroyed when observed. In cases where persons have been poisoned by touching these plants or otherwise, it is said that an application of a strong solution of bicarbonate of soda to the pustules, which make their appearance, will likely effect a cure.

ROSACEAE (ROSE FAMILY).

In this large and useful family but few if any weeds are found. This is the great fruit order. Here you find our apples, pears, cherries, plums, raspberries, strawberries, etc.; and some of our most handsome shrubs, such as the spiraeas and roses.

Portentilla auserina (silverweed). This little creeper, resembling in some respects the strawberry, is usually found on wet banks and on shores. The leaflets, much cut, present a silvery appearance on the underside, and are arranged somewhat in pairs; the flowers are yellow, and continue most of the summer. Drainage and cultivation soon destroy this plant.

ONAGRACEAE (EVENING PRIMROSE FAMILY).

This can scarcely be termed a common order,

though we find in it the fuchsia and two wayside plants. The parts of the flower in this family are usually in fours, and the tube of the calyx (outside floral envelope) prolonged more or less beyond the ovary.

Eurothera biennis (evening primrose). The stem is 3 to 5 feet high, branched, and often rough-haired; leaves 2 to 6 inches long; flowers yellow and large, with a tube 1 to 2 inches long. It is a coarse-looking plant, often seen growing along the railway track, but its large, bright yellow flowers, opening towards evening, are attractive. It has escaped from gardens, and is soon overcome by thorough cultivation.

Epilobium angustifolium (great willowherb). This is an exceedingly common plant in fence corners, and especially where woods have been newly cleared. It is a very striking plant, 4 to 6 feet high; leaves considerably longer than broad, arranged along a simple smooth stem, which is covered, especially in the fall, with pink-purple flowers, each having a long tube. You seldom see this plant in the open fields, and consequently, though a perennial, may not be considered difficult to destroy.

The Dairy.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Silos and Ensilage.

BY JAMES CHEESMAN.

Those who were interested in the earlier efforts after ensilage on this side of the Atlantic ocean in 1880, remember well the enthusiasm of the operators, and the gusto with which silos were built, and the corn crops were planted and harvested. As between the attempts of 1830 and 1881, and the experience of the present day, there is a wide gap, having scarcely any relation as regards planting of seed, treatment of crops after seeding, the harvest, the methods of filling, and last and most important of all, the ultimate result in the quantity and quality of food per acre, and the final market test of milk and butter sales. It would be tedious to lead the reader through the intervening years of 1882 to the present date, for the purpose of tracing the varied modifications through which this piece of contemporary farm history has unravelled itself.

It will be sufficient for comparison to say that formerly from 2½ to 3 bushels of corn were hand-sown or drilled. This was supplemented with a high stirring by the cultivator, and left till ready to cut, some ninety days after planting. At the harvest time every man on the place was expected to work from early morning till late at night, cutting, carting and filling the silo from the cutting machine, at the highest rate of speed he was capable of. Horses or men were used to tread down the ensilage, and as soon as the silo was full it was covered up and weighted with stones or barrels containing sand, at the rate of 50 to 100 lbs. to the square foot. Formerly it was thought necessary to build the silo in the earth, with walls of heavy masonry, at a cost of from \$5 to \$10 per ton of ensilage. Fortunately only the best-off farmers could attempt an experiment so costly and of such doubtful value as the results in many cases turned out.

The silo of to-day is a very different structure, and is built of wood and paper at a cost of from twenty-five cents to two dollars per ton. The average cost of the silo in Wisconsin is from 90 cents to \$1 per ton, as against seven dollars per ton for hay barns, and the experience of the average feeder of ensilage is that the value of it is as 2½ of ensilage to one ton of hay. For details of construction, we must leave each man

to determine for himself how much he will spend, whether he will have a separate silo, or build one in a corner of the barn. For those who must build a complete silo, the most economical size is one which will use lumber from the mill with the least amount of cutting and waste.

In some districts a silo of 36 x 12 feet, and 16 feet high, divided into three compartments, is the one answering to this convenient size for lumber. The foundation is of 10 or 12 inches of stone, and the superstructure of plank, 2 x 10 inches for uprights, placed 12 to 15 inches apart, so that tarred paper will lap one inch on every other stud. Paper must be put on the studding both outside and inside, so as to secure a perfectly dead air space. The studs are brought thus close to enable them to resist lateral pressure when the silo is filled. The pits should be filled with earth up to the level of the walls, say 12 inches high, and on this a layer of cut straw about 3 inches. On the outside of the barn drop lap boards can be nailed on over the tar paper, and on the inside, common inch floor boards may be used. The silo is now ready for use: we will leave it now and cultivate our crop of ensilage corn. First we commence with our fertilizers. Whether we apply ten tons or twenty tons of barn-yard manure, will depend on circumstances—the number of animals on the farm, and its facilities, if any, of obtaining manure from towns. I know a man within twenty miles of Montreal, who applied a dressing of 10 tons to the acre, and also 500 lbs. of standard fertilizer, at 1¼ cents per pound, well harrowed in and commingled with the soil.

About May the 15th to June 15th is the time to plant corn anywhere between the city of Quebec and Windsor, or from the American boundary to 100 miles north of the St. Lawrence in Quebec, to 250 miles north of Brockville or Toronto. Seed should be sown in the planter in rows 42 inches apart, and six inches apart in the drills—that is, about 12 quarts per acre. The seed sown should be the southern sweet corn, not the Dent. It is known as the B. & W. corn, named after the firm which introduced it, Messrs. Burrell & Whitman, New York State. It contains more sugar than the western corn, and will average a higher content of sugar in the cured stalk. As soon as the plant comes up, cultivate, and then let it be till sun-light, air and rains have done their work, which takes from 80 to 90 days.

Planting thus widely apart, we get much better and more perfect fodder plants. The old plan was to sow thickly in order to obtain a mass of substance of very questionable quality. Under the new system, we get stalks of from 12 to 13 feet high, weighing from 3 to 9 lbs. each. It is the physiological function of every stalk to form an ear to mature and perfect its organization. Until this is done its life is incomplete, just as the organization of the foetus is in cases of abortion. The immatured corn stalk has a greatly diminished nutritive value as food, and hence the reason for this method of planting. The rows should run north and south, that the sun may have its fullest effect to develop the gums and sugars after the complete formation of the ear. When the ear is in the dough state and the corn begins to glaze, cut it, and stock it for 24 hours to evaporate part of the water. From the first to the second week in September, it will be warm enough to reduce the weight of the corn 20 to 25 per cent in the 24 hours. Cart it to the silo, run it through the cutter in ½ inch lengths, distributing it evenly over the first pit in the silo, until you have cut an acre of 20 or 25 tons. Having charged our first pit with 6 or 7 feet, start cutting the next acre and fill No. 2, and next day No. 3, and from this back again to No.

1, and so on till you have filled up the silo. The temperature of pit No. 1 will be from 110 to 140. If the latter, all the better. The heat will depend on how much is put in the silo and the amount of moisture the crop contains, and especially on the quality of the stalks. The more perfect they are, and the greater the amount of care taken to dry off part of the moisture in the field, the better. It is not desirable to put more than 5 to 7 feet in a pit in one day.

The old style of working was with a washy, unnutritious stalk, cut and filled up rapidly. The result was a temperature of 80° to 95°, which is about the same as for some purposes of alcoholic fermentation. The alcoholic ferment began, and after completing itself, passed into the active or vinegar condition. Under the modern system, sweet ensilage is made. When the temperature rises to 125°, or, better still, to 140° or 145°, the starch granules are burst, and the albumenoids or nitrogenous portion is more soluble and digestible. The sugar is not much changed, but a small quantity of alcohol and lactic or milk acid is formed, and to this is traceable the high intrinsic value of ensilage. Never having had its natural water dried out, the solids, about 20 per cent. of the ensilage, are hydrated or held in solution like the solids of a potato or piece of meat. Having filled the silos 16 feet, they are covered up. Tar paper is placed in sheets, edgeways between the walls and the top of the ensilage, so that when the first boards are put on, about eight inches may be lapped over on the boards with tarred paper, and then the entire surface with about one foot of earth. The settling will of course be somewhat uneven, and the earth will follow these differences of depression, and keep the entire mass thoroughly air-tight. In thirty or forty days the ensilage will have cooled down to about 80° of temperature. It may then be fed to stock in the proportion of about 25 to 30 lbs. per day for steers and cows, with 5 to 10 lbs. of good clover hay, and from 8 to 16 lbs. of pea, oat and corn meal with bran mixed in about equal quantities, according to age, condition and purpose for which the ration is intended.

I know some men in the milk business in Canada who make it for 80c. per hundred pounds in winter, and there are others who cannot make it for less than \$1.25. At Cornell University winter milk costs 74c. per 100 lbs. In Michigan and Wisconsin milk is produced on some farms in winter at less than 70c. per 100 lbs., and contains 4½ per cent. of butter fat. Some men near Toronto spend 19c. a head for rations, and make more milk than others spending 28 and 30 cents a day. With bran at ¾c., corn meal at 1c., and new process meal or cotton seed meal at 1¼c. per lb., and an ensilage allowance of 25 lbs., with 8 lbs. of clover, my friend Howard is working his cows on 9 cents a day. The same cows a year ago, fed on clover hay entirely, in place of ensilage, cost him 17c. per day for the same result in butter. His butter sold at 33 cents in January.

How much can be cropped per acre depends on various conditions of soil, fertilizers, planting, cultivating and harvesting. I have seen only fifteen tons and I have seen forty-five tons per acre. A New York State firm got eighty tons. The average is twenty-five tons. Most men agree that the food value of a ton is equal to from 700 to 1,000 lbs. of hay. The food value varies according to treatment. Farmers can well afford to borrow money at six per cent. to build a silo large enough to hold five or six acres of corn. Fifty cubic feet of silo will hold one ton of ensilage. The practice of ensilage feeding will do more for winter butter than anything else in farm economy. It will improve a man's herd, double the

milk yield, build him new barns, and, as our friend Derbyshire would put it, "It will keep the farmer's wife in nice shape," when the family income is so much improved. In the States of Vermont, New Hampshire, Connecticut and New York, I know a few herds which turn out 300 lbs, and 360 lbs. of butter per cow yearly since ensilage was resorted to, which before made from 200 to 250 lbs., and cost more money to produce it.

The other day some one asked me how much butter the Ontario creameries made. The question made me wince, because I had to answer that Ontario made about 32,000,000 lbs. of butter, of which about 2,500,000 lbs. only is creamery—about enough to keep this city for twenty two weeks. I am rather glad Bill Nye did not know this when he came here to lecture. He certainly would have twitted us with one of his quaint dashes of humor, and have made capital out of the fact when he got into New York or Michigan.

I often wonder why we don't get a few fresh eggs in winter. There are many families here willing to pay 30 to 40 cts. for fresh eggs from December 1st to March 1st. There is no other food product that will ever do so much for the woman's department of the farm as ensilage. Dairy products in winter and eggs and poultry are growing more important every year. Can our lady friends help us to get a few silos built in each county this year? Wisconsin has 515, and is planning for 200 more this year.

The Most Important Factors in Making the Butter Industry Profitable.

This paper was read by Mr. V. E. Fuller, Hamilton, at the recent annual meeting of the Ontario Creameries Association, held at Guelph.

It is generally conceded that no branch of our agriculture in Ontario is in so backward a condition as the butter industry, and the object of this association is to improve it.

It cannot for a moment be contended that Ontario is not in its climate, in its soil and pastures, its water, and in the character of its inhabitants, admirably adapted to superior butter production. Sweden cannot compare with Ontario in these essential adjuncts to butter making, and yet the former country is rapidly acquiring a first rank for the quality and quantity of its butter. We must seek beyond the natural causes for the true solution of this problem, and I shall endeavor to point out what appear to me to be a few of the causes. First and foremost to my mind is a

WANT OF KNOWLEDGE IN THE ART OF BUTTER MAKING

I say the art, because the knowledge of how to produce a good article of butter is not acquired save by application, care, study and experience. It is too commonly believed by the majority of our farmers that when the cream is separated from the milk and is made into butter, the one to whom this part of the farm work is relegated has performed his or her duty. No regard is had to the cleanliness or health of the cow; to the food partaken of by the cow; to the cleanliness of the utensils into which the milk is drawn and later on retained; to the absolute necessity of keeping the cow stable free from objectionable odors; to the retention of the milk and cream in a pure and wholesome atmosphere; to the proper mixing and thorough incorporation and equally ripening by stirring of the cream of various ages; to the proper ripening of the cream; to the proper temperature of the cream at the time of churning; nor to the fact that the butter should not be worked until it is one mass of grease; to the beneficial and profitable result that always follows from the packages being prepared in the most neat and tasteful manner for the market. All these points are absolutely necessary and must be carefully guarded if we wish to produce an A1 butter. That this knowledge is not possessed by the majority of our butter makers is too painfully apparent when we go upon the open market to purchase butter for our own tables, and it is so conceded by the general public.

Millions of dollars are annually lost to the province by this lack of knowledge, and our farmers are poor-

er by millions of dollars every year. How can we best remedy this? Such meetings as we are holding to-day is one of the means to that end and the objects that this association has in view. The establishment of creameries is one of the quickest and surest educators. Discussion in an intelligent audience will always give us fresh light on any subject, and the establishment of creameries when conducted in an intelligent and skilful manner, has in other countries been the means of improving the butter making knowledge to a very appreciable extent.

Farmers' wives and daughters upon whom generally falls the duty of the dairy work, have not the time or opportunity in this country to learn the art of butter making in its highest conception. But when a creamery is established the quantity of milk which is sent to any one creamery justifies the employment of one who has a thorough knowledge of his calling; one who knows and can impress upon the patrons the necessity for the proper care and feeding of the cows and the dealing with the milk and cream. The enforced necessity of producing the cream or milk in a clean condition is in itself an educator to every farmer supplying such, and the modes pursued at the creamery in producing the butter, and the extra price obtained for the same, act as a stimulant not only to the patrons, but to every farmer in the neighborhood, to emulate and if possible equal the product produced at the creamery.

But are all our creameries requiring at the hands of their patrons a proper raw material, and are they making the best article of butter possible to be produced? I fear not. Then surely our first work is to set our own houses in order by the visit of a properly qualified inspector or instructor before we seek to establish other creameries, and when this end has been reached let us one and all seek by all means in our power to encourage the establishment of additional ones.

I do not hold to the opinion that an equally good article of butter cannot be produced in a private dairy, on the contrary I believe that with equally good surroundings and with an equal knowledge, better butter can be made in private dairies, for the reason that on one farm with the requisite care, a milk and cream more cleanly and perfect can be produced than when the butter maker is obliged to depend upon the cream of many farms. Yet from the very nature of other work on the farm the creameries must be, for years at least, the source from which our best butter will be drawn and they will also act as the best and quickest educators in butter making.

At the price at which beef and wheat have been selling in the past two years, no branch of farming will be found so profitable as the dairy cow, and yet the average cow of Ontario does not produce one-half the annual return that she is capable of.

MILK AT LESS COST.

The cow was intended by nature to produce but enough milk to raise her calf. She is now, as a deep milker, the creature of man's handiwork. From my own experience I know that the length of time a cow will keep in milk depends much upon her care, feed and handling. The first year of milking is the proper time in which to lay the foundation for a persistent milker. Milk her with her first and second calves but for four to six months, and you will fix that "habitude" in her. On the contrary feed her well, and milk her up to within six weeks or two months of her calving and persist in this, and you will equally as thoroughly fix the habitude to continue long on her flow. If this course were persisted in by every farmer in the country we would have the annual production of our milk per cow largely increased, and our cows would in the winter time help to keep themselves, in place of being kept, as is too often the case, in a wretched and impoverished condition, only to require an extra amount of feed or grass in the spring to bring them to their flow of milk. "Like begets like or the likeness of an ancestor," and the "habitude" you have fixed in your stock for two or three generations will be handed down to their offspring.

If our cows will produce 5,000 lbs. of milk per year (equally as good as when they produced but 3,000 lbs.) every pound of butter made from such extra 2,000 lbs. means an additional profit to the owner. To fix a habit of continuing in milk I claim is a factor in making the butter industry profitable. Such long continuous milking means to the creamery men winter dairying, but I know in the United States the best creameries are keeping open all the year through, and I have no doubt our creameries would be only too glad to do so were they assured of the milk. In the

experience of others as well as my own, I know that cows calving in the fall, as a rule, with proper care and housing produce more milk in a year than those calving in the spring. Cows calving in the fall and beginning to fail towards spring are picked up by the grass and a fresh and additional flow of milk given to them, whereas those calving in the spring are checked by our droughts of August and September, and unless unusual care is taken they fall off when going into the stables. Butter made fresh in the winter will always produce a better price than packed butter. For these reasons I claim that winter dairying is one of the factors in profitable butter making.

(To be continued).

A New Yorker's Experience.

The disposition to experiment and change constantly without any good reason for it, will frequently happen to the most prominent and successful butter makers in the west, who have only attained their enviable position after many years of trial and tribulation in the business. If we should stop to investigate the causes of this frequent departure from the beaten path, it will likely be found that they have been prevailed on and then entirely succumbed under the pressure of some influential and fascinating salesman; hence a new kind of salt or other coloring is purchased and used, or an entire new process of churning or working the butter adopted; different temperatures for the milk or cream will be tried, and numerous other schemes that cannot be enumerated.

This is a very unfortunate state of affairs and should be altogether condemned. This is not the entire story, however, for the channels of trade in the east, for which it might have been peculiarly fitted, may fail to respond to the change, and reject it perhaps with great contempt for not being the same as before. New outlets must then be found again and concessions in price as inducements are made to build up other admirers for the now new and changed character of the butter. Thus the expense and loss of reputation and trouble in the east for want of that most admirable of all elements of human nature in the west, viz., stability, regularity and reliability in the making, handling and shipping of fine creamery butter.

This paragraph, clipped from an exchange, enunciates a principle that cannot go unheeded by him who is to succeed in any line of life. When one has, after years of hard and constant labor, established a reputation for his goods, he cannot be too careful as to what changes he introduces. It would not be commendable for him to reject what have been clearly demonstrated as improvements over his system, but nothing in the tentative stage should be allowed to supplant the methods which have won for him reputation and emolument. On the other hand it is folly to shut our eyes to the advantage of embodying in practice what has been clearly demonstrated to be an improvement. Millers who persist in grinding with the old burr stones since the introduction of the roller process do so to their own hurt, and so of the home butter-makers who shut their eyes to the light that is given them from year to year by the various creamery associations. But this is no reason why creameries should be constantly changing their methods as some of them do, for no other reason apparently than that some one has recommended the change.

"I have been a subscriber for the JOURNAL since its first issue, and I propose to be one as long as it remains as good as it is."—M. E. Bullard, Iron Hill, Que.

"I have dropped the *Farmers' Advocate*, as it has gone back on scrub stock. It shows a want of consistency. I suppose it will devote all its space now to the Co. of Middlesex."—Joshua Knight, Elginburg, Ont.

"I am well pleased with your paper. It should be in every farm-house in the country. My card in the Breeder's Directory brings me a great number of customers that I would never get any other way."—Joseph Yuill, Carleton Place, Ont.

"I am better pleased with the JOURNAL than ever. You are working it up step by step. In fact we get no such a paper, and I get lots of them sent to me one way and another."—H. Townsend, Brookside Farm, New Glasgow, N. S.

Poultry.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Exhibition Talks.

BY W. B. COCKBURN, ABERFOYLE, ONT.

The various winter and spring exhibitions are now over, and exhibitors whether satisfied or not will again settle themselves and slacken their energies for a time, resting on the premiums awarded them in the past.

Whatever the results may be of the many shows held throughout Canada and the United States, of one thing we are certain, they have added to the list of fanciers, and stimulated the older ones with the desire to bring out next year birds scoring higher than ever theirs have done before.

On referring to the notes of the first annual show of the Poultry and Pet Stock Association, I find that some five hundred birds were on exhibition, which at that time was considered a very large number. The numbers have gradually increased till this year, when from twelve to fifteen hundred birds were brought together from all parts of the Province, making on an average the highest score that has been reached at any of the shows of this country. As with this show, so has it been in the quality and number of the exhibits in the other shows of this country and the United States, which are certainly becoming too numerous.

It should be borne in mind by fanciers in shipping fowls to parties who have not seen what they are paying for, that they should send what has been ordered. This most of them do, but there are some exceptions. If for exhibition, they should send only such as are good in every respect and that will score high; if for breeding purposes, such as will produce high scoring progeny, and culls should not be sold at any price. The pot is the best market for them. If fowls are sold for last year's birds, let them be such. If for chicks they should not be old birds. Let honesty be the high aim in every transaction, and the lack of this the great dread. If the seller is to furnish good birds, it should be at a good price, and this the receiver should be willing to pay. An enduring business can only be built up on a foundation laid in honest dealing.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Aylesbury and Pekin Ducks.

BY W. B. COCKBURN, ABERFOYLE, ONT.

A good many persons do not know the difference between the Aylesbury and Pekin ducks, for the reason, amongst others, that both are white, and I now accede to your request to give the comparative points of difference between them. The Pekins have rich yellow bills; those of the Aylesbury are fully longer and of a pure flesh color. In plumage the Pekins are a creamy white throughout except the wings, the Aylesburys are a pure white, the legs of both are reddish orange, those of the Aylesburys being a trifle lighter than the Pekins. The Pekins are larger in size, and more compact in form, mature earlier than the Aylesburys, and I have found them fully equal as egg producers, both starting to lay early in February and March, and continuing till late in the fall. Both are very handsome, of a quiet disposition and hardy.

The main points of excellence in the two breeds, and especially the Pekins, are: very large size, they mature early, are very prolific and hardy, standing our cold winters well, are good layers, good foragers, and are almost entirely free from disease.

Disqualifications—Birds not matching in the show-pen, crooked backs; birds so fat as to droop behind, bills marked with black. Pekins with plumage any

other color than a creamy white, and Aylesburys any other color than a pure white.

Before closing I may add that ducks are becoming more popular from year to year. The opinion once held that a pond or stream was essential to rearing them successfully is dying out. No farm bird is a more inveterate insect hunter than a young duck. Their value to the farmer and gardener is therefore very considerable for this reason alone, and the number of eggs they lay in a year is very large.

The Apiary.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Ontario Bee-Keepers' Association.

BY ALLAN PRINGLE, SELBY, ONT.

The Ontario Bee-keepers' Association held its annual meeting in Woodstock on the 10th and 11th of January, 1888. The meeting was well attended, and the proceedings of the four sessions—two each day—proved interesting and instructive to those present. Several valuable papers from practical men were read and discussed, the first being by Mr. F. Malcolm, of Innerkip, on the "Best Method of Producing Extracted Honey," the president of the society, Mr. S. T. Pettit, of Belmont, being in the chair.

Mr. Malcolm was not in favor of extracting honey till it was ripe, and was also against extracting from the brood nest, especially for the market. His reason appeared to be that in both cases the result was an inferior quality of honey—that extracted before it was capped over being inferior in flavor, and that extracted from the brood-chamber being inferior in color. In the discussion that followed the majority seemed to be in favor of allowing the honey to ripen in the hive, and leaving the brood-chamber alone, so far as extracting is concerned. Rev. W. F. Clarke was opposed to the extractor altogether.

At the conclusion of this discussion Mr. Francis, Mayor of Woodstock, having entered the meeting, was called upon by the president, and welcomed the bee-keepers to Woodstock, thanking the association for coming.

The next paper, read by the secretary, was from Allen Pringle, of Selby, who by request of the president, had considered the question, "Ought Everybody to Keep Bees?" The conclusions reached by the writer were, that while it would be absurd for everybody to keep bees, anybody had a right to do so—a right to try it, and succeed or fail; that is, so long as he kept within the civil law, which might exclude him from the limits of towns and cities, and the moral law, which might exclude him from preoccupied ground. That apiculture was naturally and properly a part of agriculture; that the honey-bee is the friend of the farmer and the fruit-grower in fertilizing their gardens, orchards and clover fields, and that, therefore, bee-culture could with advantage be much extended in the agricultural districts; that is, in a small way for home supply, without the use of the extractor or other modern improvements, as these can be safely and successfully handled by specialists alone; that to succeed in apiculture as an exclusive business, special qualifications and a good territory not already occupied, are indispensable; and that as these special gifts and conditions are by no means common it would be both foolish and unprofitable for many people to rush into bee-keeping as a main pursuit.

The paper was duly discussed, and according to the *Canadian Bee Journal*, from whose excellent and full report the gist and order of proceedings are taken, the

opinion of the meeting was, that the conclusions arrived at were "about right." Thereupon the following resolution, moved by Mr. Clarke, and seconded by Mr. Malcolm, was carried:

"Resolved, That while it is the inalienable right of everybody and anybody to go into bee-keeping the same as any other honest business, it is the sense of this meeting that it is unwise to do so without adequate knowledge and due qualification."

Next the "Question Drawer" came on. The first question as to the relative merits of naturally cured honey and artificially cured honey—that is, honey evaporated and capped in the hive and honey evaporated outside the hive—was answered in favor of the hive-cured honey. The second question, as to spring management, how to prevent dwindling, and the best mode of building up weak colonies, was answered as follows: "Winter in a high temperature on good stores and keep as warm as possible on summer stands." In elucidation of what constituted a "high temperature," it was decided to be from 50° to 56°.

Following this came a paper by Mr. J. B. Hall, of Woodstock, on "Best Methods of Producing Comb Honey." These were stated to be convenient bee pasturage in abundance; a competent manipulator, fitted to his business both by nature and study; a movable comb hive "having a large top surface"; and a specialist in charge giving his whole attention to the business.

In the discussion that followed there was but little divergence of opinion from the positions taken in the paper.

The president's address followed next, in which the progress of the association during the past two years was reviewed, noting, 1st, the incorporating of the society; 2d, the Provincial Government grant of \$500 a year; 3d, the grand Canadian honey exhibit at the Colonial and Indian Exhibition at South Kensington, London, England, in 1886; 4th, the increased influence of the society in fixing the apian prize-lists of the leading Provincial exhibitions; 5th, the foundation of an association library, the first contribution to which was from our trans-Atlantic friend, T. W. Cowan, F. G. S., F. N. M. S., etc.; and, 6th, the largely increased membership of the association. The president, in his address, touched upon several other minor matters.

Cellar wintering was next considered, Mr. McKnight describing his cellar as all underground, with walls nearly two feet in thickness, and nine feet ceiling. He had four sub-earth ventilators from 100 to 275 feet long of six inch tile. They all entered the cellar eighteen inches below the bottom. A draught pipe seven inches in diameter ran from within six inches of the cellar floor up to a stove above. A "cooler pipe" came in from the outside, adjustable. He wintered successfully in this cellar.

Mr. McKnight also gave a description of his excellent cellar, for which we have not room here, but which may be found in "Bee-houses and How to Build them," published by the D. A. Jones Co., Beeton, Ont.

Next came a paper by James Heddon, of Michigan, on "Overstocking." Unfortunately I have not been able to see this paper, but from what I know of Mr. Heddon's abilities as a practical apiarist it was no doubt interesting and instructive.

Then followed Dr. Miller's paper—"Can the Specialist Produce Honey More Cheaply and in Better Shape than Others? If so, why?" The Dr., as might be naturally expected, reached the conclusion that the specialist can produce honey more cheaply and in better shape than the dabbler or amateur, for the ob-

vious reasons, briefly put, that the specialist thoroughly studies his business and gives his undivided attention to it.

After some discussion of the paper, the "Question Drawer" was re-opened with the question, "Does it pay to buy dollar queens for the purpose of getting new blood in your apiary?" The general opinion was that it did pay, but care should be exercised as to the reliability of the parties purchased from.

To the question, "Shall we contract the brood-chamber by means of dummies or any other way during the honey season?" it was answered—"If you have all the bees you want, yes; if not, no." As to whether it was desirable to winter with or without bottom boards, the opinions differed.

As to keeping the different varieties of honey entirely separate, it was decided to be practically impossible. More room and plenty of ventilation was the plan for keeping down swarms.

As to whether bees are divided into feeders, foragers and comb-builders, the answering committee did not know, but it was thought by some that they were.

The board of directors here submitted their report, showing a healthy state of the society with a handsome balance in the treasury. They referred to an important event in the year past in the visit to this country of Thomas W. Cowan, editor of the *British Bee Journal*, and Ivar S. Young, editor of the *Norwegian Bee Journal*, who were very cordially received by the bee-keepers of America, and whose visit "will tend to unite more closely the bee-keepers of this country with their British and Norwegian brethren." The report was received.

The officers for 1888 were then elected as follows: M. Emigh, Holbrook, President; J. B. Hall, Woodstock, Vice-President. Directors—J. K. Darling, Almonte; Allen Pringle, Selby; W. Couse, Streetsville; A. Pickett, Nassagawaya; W. Ellis, St. Davids; F. Malcolm, Innerkip; R. McKnight, Owen Sound; F. A. Gemmel, Stratford; R. E. Smith, Tilbury Centre, and E. Schultz, Kilworthy. Auditors, F. H. McPherson, Beeton; R. F. Holterman, Brantford.

It was decided to hold the next annual meeting at Owen Sound, the second Tuesday in January, 1889.

Messrs. Cowan and Young, the foreign visitors above mentioned, were elected honorary members of the association.

Mr. R. McKnight, of Owen Sound, read a paper on "Our Local Honey Market, and How to Cultivate It." He advocated development of the home market; did not fear over production; thought, through proper, well-directed effort on the part of the large bee-keepers, that the demand would keep pace with the supply. His paper embraced many good points and was freely discussed.

A constitution and by-laws for the association in its incorporated state, which had been drafted by Mr. McKnight, was discussed and unanimously adopted. The meeting then adjourned.

A NEW APICULTURAL JOURNAL.

The first number of the *Bee Keepers' Review*, for January, has been issued at Flint, Michigan, W. Z. Hutchinson being editor and proprietor. This journal is intended for advanced apiarists and specialists rather than amateurs or beginners. The "unsolved problems of advanced bee-culture" will be attended to, and the paper will "endeavor to advance bee-culture by increasing the prosperity of existing bee-keepers, rather than by adding to their numbers." Each number will be, as it were, *special*, discussing a particular, timely subject. As it fills a place in apicultural journalism hitherto unoccupied, I beg to extend

to it cordial greeting. The first number is well filled and is devoted to a discussion of the question of winter disturbance of bees. The various writers differ somewhat, but the fear of winter disturbance is evidently dissolving in the minds of most of them. There is need here for caution and steadiness. There is a propensity in human nature, when one gets too far one way, to get too far the other way in trying to get back to the truth between. This is exactly the pit into which some of these critics are rushing on this winter disturbance question. The reaction against the non-disturbance theory is about to carry them too far the other way. The truth is between, and will stay there. The prevailing conviction amongst experienced bee-keepers that winter quiet is good, and winter disturbance bad is well grounded, and will survive this reaction. But very often the terminology in discussion is the stumbling-block. As the "brilliant Frenchman" said to his antagonists, "Define your terms, gentlemen, and I will tell you what I am." What is disturbance? What constitutes disturbance of bees in winter? What amount of disturbance is injurious; and under what conditions does it become injurious and therefore a disturbance? Anything that agitates or excites the bees to the extent of causing them to gorge themselves with food when they would not otherwise do so, I should say amounts to a disturbance. Such disturbance might prove injurious to the colony, and it might not, according to the conditions. In a majority of cases under the present modes of wintering, I think it would prove injurious. The exceptions would be in cases where the other conditions were quite perfect, such as perfectly wholesome food, right temperature, humidity, etc. But as we hardly ever know that our bees are in just right conditions in every respect in winter quarters, there is more safety as well as wisdom in not disturbing them. On the other hand, going into the beecellar once in a while to take a quiet peep at the bees either through the entrance or by gently raising the quilt, does not in my opinion constitute a disturbance. This can be done without jarring or agitating them, and need not necessarily prove injurious to the colony, whether the other conditions be right or wrong. The common-sense conclusion is this: When your bees require your attention in the winter, attend to them. If you want to ascertain the temperature of the beecellar, or the humidity, or the purity of the atmosphere, or anything else, go and do it. If they require feed, go and feed them, but do everything gently, with as little disturbance as possible.

Horticultural.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Plum Culture

BY E. D. SMITH, WINONA, ONT.

Canada is the home of the plum, as is evidenced by the groves of wild plums to be found in almost every county in the Dominion. And yet plum culture, though highly remunerative, if intelligently conducted, has not proven generally successful. The three leading causes of failure have been, first, loss of the trees from winter killing, either roots or the trees themselves; second, loss of the trees from black knot; third, loss of the crop from the ravage of the curculio.

These, under skilful management, are now to a great extent controllable. But without a careful study of the best authorities, and observation of results obtained by successful orchardists, failure is easier and swifter to-day than ever before, as insect pests become more numerous and widely dissem-

inated, and the beneficial effects of sheltering forests are less and less felt.

The spirited horticulturist who finds it a pleasant task to test new varieties in hopes of finding something more suitable for his requirements, will necessarily lose still from winter killing, as many varieties, good in other respects, are too tender for a large portion of the country. But the orchardist who plants for profit alone may now select varieties hardy enough for most parts of Ontario, and new varieties now being thoroughly tested at the Iowa Agricultural College, and Ottawa Experimental Farm, as well as by many private citizens, notably Dr. Hoskins of Vermont, and our own Mr. Gibbs of Abbotsford, Quebec, will undoubtedly be found hardy enough for the coldest parts of the older provinces at least. The provinces may be divided into three divisions, requiring plum trees respectively, hardy, hardier, hardiest. The first division being the strip of land a few miles back from the shores of the great lakes. The second division, the inland counties, say south of the latitude of Barrie. The third, the remainder of the eastern provinces. The result of experiments at the Guelph Experimental Farm would be a safe guide for the second division. For the first, the experience of prominent plum-growers must be chiefly relied upon. This can be secured by reading the reports of the Ontario Fruit Growers' Association, or the reports of affiliated or independent societies, where obtainable. Many have planted varieties too tender for their district, being over-persuaded by the smooth-tongued agent, who is very often himself utterly ignorant of the hardiness of different kinds, and even some nurserymen conceal the faults of the various varieties offered in their catalogues, extolling each for the virtues it possesses, telling the truth doubtless, but not the whole truth. Again, a fertile source of loss has been caused by purchasing trees grafted upon peach roots or upon French plum roots. Those grafted on peach roots are too tender and altogether unsuited for most of our country, and those on French plum stock are not nearly so hardy as if on Canada wild plum roots; that is to say, the roots are not so hardy. Nurserymen like to sell trees grown on the French root as they grow faster, and make a saleable tree quicker, but no person should use them in exposed sections. In very favored and sheltered places the French root, is preferable, as the trees grow faster and larger, and from my observation, produce more and finer fruit, owing, doubtless to the greater distance to which the roots run in search of nourishment. Later on I will speak of the relative hardiness of varieties when discussing their other qualities.

Plums are healthier and produce more regular crops, are freer from curculio and rot, upon heavy clay loam than upon sand. In fact sand is not suited for plums at all, neither is heavy clay, though the latter will produce fine crops, but trees grow slowly and cost of cultivation is greater. Sandy soil with clay subsoil does fairly well. Plums require plenty of moisture to mature a crop. The past season was so dry that on most soils a portion of the crop failed to mature, some trees heavily laden losing all the fruit, and yet no fruit tree is more easily injured by stagnant water in the subsoil, not even a peach tree, consequently I would suggest the selection of a piece of land having a damp or springy bottom of a clayey nature, with a loamy surface, or at least a surface soil not too hard and stiff; this should then be very thoroughly underdrained to the depth of at least three feet. Drains not over two rods apart. I plant the trees from eight inches to a foot deep in this well-drained soil, which almost insures the roots against

winter-killing, and prevents also in a great measure the growth of suckers from the root. In planting I dig a large hole, say three feet in diameter and a foot deep, the bottom of which, to the depth of say six inches, I fill in with good, fine, rich soil from the surface, sometimes in bad spots even hauling sand for this purpose. This gives the trees a good chance to start and get a good growth the first two years, when they are able to attack the heavy subsoil with vigor, a task they are peculiarly fitted to do successfully. Any one at all posted in fruit knows it would not be advisable to plant a foot deep in heavy land unless underdrained, because the soil is full of stagnant water at that depth; but when thoroughly drained there is no objection; a third advantage of this deep planting being that the soil is moist during a dry season much longer than on the surface, especially where there is a springy bottom. Damp bottoms are usually found at the foot of high hills or mountains. The foot of the escarpment running from Hamilton to Niagara river is of this nature. Much of this land is almost unfit for cultivation in its natural state owing to cold springs and a wet bottom, but when thoroughly drained becomes the very best soil for many purposes. Plant in the fall or early as possible in the spring, which may be quite early if land is properly drained. If planted in the fall, mice must be guarded against, as they require to be each succeeding winter. This is best done by making a mound around the tree, of fine soil, say a foot high, being careful to have no sods or rubbish in the mound to harbor the mice. To save this extra work I prefer planting in the spring, unless crowded by much such extra labor at that season. From twelve to sixteen feet apart each way is about the correct distance to plant, depending upon the fertility of the soil and the varieties planted, some being much more vigorous growers than others. Some of the slow-growing sorts on heavy land might even be planted much closer in the row with profit, especially if land is valuable. All mutilated roots should be cut off smooth when the tree is planted, and coarse top roots cut off. Most of the top should be cut back, leaving about a dozen good buds only; each of them should then make a good growth, three or four of which can be allowed to grow, the remainder trimmed off at any time during the summer or the following spring. Each succeeding year the top should be trimmed and balanced, long shoots shortened in, and interweaving branches removed. When the tree commences to bear, the object should be to get as large a crop as is consistent with a good growth of wood; without a good growth of wood a good crop cannot be expected the following year.

The usual course of Lombards and other heavy-bearing sorts, is to produce an enormous crop one year, which so exhausts the tree that little wood is made for the ensuing year, and the tree is also too feeble to stand a very severe winter. The following season, the tree, having no crop, spends its recovered energies in making a fine lot of wood which in turn produces more fruit than the tree can or ought to bear. The remedy for this unnatural system, which tends to speedy decay, and is the least remunerative, because the crop, though large each alternate year, has to be sold at low prices, as most orchards are in this state, whilst the year of high prices finds these trees busy in growing good only for the following season's crop, is such pruning and thinning of fruit as would insure a good growth of wood every year. If this is done a crop may be secured nearly every season, and the tree kept healthy and vigorous. Some varieties, however, are somewhat shy bearers, and will require very little pruning except to keep the top in an even and

not over crowded condition. Most kinds of plums, if saved from the ravages of the curculio, are inclined to over bear, however.

(To be continued.)

Fruit Growing as a Business.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In your December number I notice a letter by E. D. Smith, from which I see that he has concluded that fruit-growing should be separated from a general farming business. I have been preaching this doctrine for years. While I admit that every farmer is justified in producing all the kinds of fruit for home use that his circumstances and his soil will fairly allow, I do not advise a general farmer to try to be a general fruit-grower. A general farmer with suitable soil may succeed very well with one or two kinds of the tree fruits, such as apples, or even with grapes. Berries and the summer fruits he may safely leave alone. General farmers on the whole make nothing out of the berry business, and they destroy the business for those who otherwise might make something out of it.

As intimated by Mr. Smith, profitable berry plantations are limited to special soils on special situations under the charge of men specially fitted for the business, who can give it the necessary attention. Others do not deserve to succeed as fruit-growers. They do succeed in cramming the markets with rubbish and spoiling the business of all concerned.

The man who undertakes any business that he does not understand under circumstances that are not favorable, and give to that business only an intermittent attention, may look for success, but he is not apt to find it.

The amazing conceit of the motley crowd of would-be fruit-growers is something to marvel at. Men who are rather coarse farmers apparently expect to be instantaneously transmogrified into first-class fruit-growers. As professional weed-growers they are usually a success.

E. MORDEN.

Niagara Falls South.

The Home.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Hints.

BY MRS. P. L. HANEY, CAISTORVILLE, ONT.

Learn to plod if you would win,
If you fail begin again;
Break the soil with patient hand,
Sow the seed to reap the grain.

Round by round the top is gained,
Minute by minute makes the hour,
Blade by blade the fields are green,
Leaf by leaf unfolds the flower.

Drop by drop the river swells,
Blow by blow the tree falls down,
Stitch by stitch the garment's made,
Brick by brick builds up the town.

Precept on precept, line on line,
The head grows wise, the heart grows strong.
Step by step the journey's made,
Tho' the way be rough and long.

Live as you would wish to die,
Do right altho' the world may frown,
Keep your feet in the narrow way,
Bear the cross to win the crown.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Common Way.

It opens in the land of infancy where the lights and shadows unnoticed come and go: a dreamy land where sleep holds sway, and troubles are forgotten as soon as experienced—a land where the journey but begins, and where many end their short life. This leads to another country of growth where many fall a prey to idolization and spoliation, where the real traveling begins, and the habits which form the character of the whole journey are formed. The journey at this stage seems endless to the young traveler, and he sees the future

full of promise as he looks before him along the path seemingly so smooth, as it opens up before him.

These are but preambles to the poem or preludes to the song. The next stage takes him out to meet other runners in the race of life, and forth he goes to school. Rough the knocks he gets, and hot the flame through which in this moulding process he sometimes passes. If of the true ring, the fiercer the trial the better, as pure metal and not alloy is left to face the further journey; having all excrescences rubbed off and defects removed, there is not the liability to be left behind.

The way in reality now starts, and happy is he who can carry with him the ability of acquiring knowledge—and thereby wisdom—is he goes. He now learns that difficulty is closely linked with success, and that in man's "purest cup" there is a "poison drop."

It is necessary to have a business, as the journey may not soon be over, and one needs to be prepared for all emergencies. One thoroughly, two if possible, three, if need be; while more are not ill to carry, and may often prove helpful either to the traveler himself or to others who may require assistance. One thing noticeable at this stage is the roughness of the road, thorny-sided, and having many sloughs and pitfalls. These, even in the third stage, begin to show themselves. Many fall. Some scirred or tainted are relieved; others rise to journey on, ever bearing a burden, and unable to look up, but luring the unwary by the seeming real, to fall as they have fallen.

Having safely passed these four stages, the traveler's path is less dangerous, as he has now learned the good and true from the fatal and the faulty. Other temptations do at times beset the path, and there are ever new experiences. A change in the man is noticeable here. He no longer looks forward so eagerly for what the way unfolds. It repeats itself, and the experience of the past has taught him that the boyish imaginative dreams, with their wild expectations and hidden wonders, have but few realizations. So with common sense he enters a quieter land, and more contentedly; with "less romance and fewer dreams," he scans the country through which he travels, takes his bearings and more cautiously makes advances to fellow-travelers.

Another stage, and many find their journey done. Looking back the way has not been long, and the time has all too quickly passed, and as a dream, or "a tale that is told" it all seems, and few would wish to travel it again, unless, indeed, to place way-marks as danger-signals for the guidance of the ceaseless throng of pilgrims on this teeming way.

Another yet. The journey is to some prolonged to hoary hairs and wrinkled brow, to the bent shoulder and the slackened pace. They journey onward still, at times gazing backward, but ever willing helpers; kindly advisers, and friendly supporters. Difficult at times their path, as the frailties of age are coming on; but with the eye of faith anchored in the Home to which through the years they've been "casting wishful eyes," they peacefully travel on.

To some, one more stage yet remains. Past the allotted time of travel, they much resemble the first-nursed by woman's hands, and cared for by them, living in a land of sleep and dreams—dreams of the long ago, when he gaily ran the glades in familiar haunts, or wanders with the friends, so long ago beneath the mould, and giving strength to nature's treasures; he paddles in the stream and lives again when all was bright and sparkling as the sunshine on the morning dew. Joy and sorrow, pleasure and pain, happiness and trouble, all mingle in a meddled strain. The tear comes, and the kiss of long ago, and he peacefully

waits on Jordan's stormy bank, and looks beyond. The life-work some morning or evening or at midnight is accomplished, and the way-worn traveler quietly goes home.

FIRST LEAVES.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL

Be Brave.

Courage, O brave and much tried heart,
Although thy way be dark and drear,
Fear not the cloud which lowers, for yet
Its "silver lining" shall appear.

The saints of God in this, our day,
No longer know the fiery stake,
The rack, the scourge, the lonely cave,
Borne bravely for the Saviour's sake

Yet still God has his crucibles,
In which His chosen He refines,
Their cup with woe He often fills,
Their furnace heats He seven times.

While some the martyrs' crown now wear
By one short hour of grief and tears,
Others, the harder task to bear,
Silent, the gnawing grief of years.

Then courage take and still endure,
For truth and right have hidden power,
God's promises are firm and sure,
Before the dawn's the darkest hour.

When dangers in the pathway lurk,
And friends and foes prove false alike,
Then "patience hath her perfect work,"
"At eventide it shall be light."

J. C., Niagara.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

"Books Which Have Influenced Me."

Such is the title of a little book lately issued, which title alone may furnish ample food for thought. Let any one honestly think over the books to which he feels he owes most in the formation of his character; let a number of persons make a list; the comparison say of twenty of those from different positions in life, of those who have distinguished themselves in altogether different ways, as poets, warriors, statesmen, lawyers, merchant princes, divines, artists, ought to be no less interesting than instructive. The work mentioned came into existence in this way. The editor of the *British Weekly* sent requests to a number of persons, more or less distinguished, to write a short article in reference to the books which had most influenced them. The replies were published in that paper, and attracted so much attention, and were quoted from and commented on so much, that they are now put out in modest pamphlet form. They are different in tone as in length; some frank, and giving us pleasing glimpses of the personality of the writer, others curt, and giving little insight into the subject discussed. The letters are twelve in number, and include answers from Hon. W. E. Gladstone, Ruskin, Archdeacon Farrar, Robert Louis Stephenson, Besant, Haggard, Prof. Blackie, Rev. Joseph Parker, D. D., etc., and the books cited give us a wide range of thought, from the Aristotle and Dante of Gladstone, or Homer and French sensation novels of Ruskin, to the Robinson Crusoe of Haggard (the author of some of the most wildly improbable stories ever written), the Hooker and Butler of Archdeacon Farrar, or Shakespeare and Marcus Aurelius, of Stephenson. The different rules laid down, advice given, or opinions expressed, are sometimes amusing, and again startling. Besant describes himself as a voracious reader of forty years standing, and deprecates the practice of laying down a course of reading and laboriously sticking to it, rather sneeringly saying that a young man doing so is not likely to set on fire any stream in his neighborhood. The same

writer thinks the book which has most influenced Englishmen next to the Bible is *Pilgrim's Progress*. Query. Is this book as much read among our Canadians children as it ought to be? Ruskin very cavalierly commences by saying, "The books which have most influenced me are inaccessible to the general reader," but generously gives a list of those "good for everybody." The letter is very short, and in reply to a further query, the second letter gives little more information. This from the author of *Sesame and Lilies*, who so eloquently tells us how we can, in any rank of life, have the friendship of the wisest and noblest and best through books, seems cold and repellent.

Blackie openly and honestly delights to acknowledge his indebtedness to the Bible, as from the age of fifteen he was roused to adopt the ideal ethics of the Gospel as the standard of conduct. Dr. Parker also says, "It may sound somewhat singular if I say in sober truth that the book which has most influenced me is the Bible." The same writer reads much fiction, giving the names of George Eliot, Dickens, Thackeray, Scott, and is bold enough and honest enough to say, "The man who has not been influenced by the higher order of fiction is a man whose mental health I cannot understand and for whose mental peculiarities I thank heaven I am not responsible." What would a worthy friend of mine who made her children take a solemn vow, never to read a word of fiction, say to this?

W. T. Stead mentions an insignificant common old chap-book, with ancient woodcuts, which gave him his first lessons in pity, sympathy and compassion, for all helpless things, and hatred for those who inflict pain. From the poems of William Russell Lowell, he derived inspiration in his plans of serving the ignorant, the poor, and those who needed help, and quotes from Victor Hugo a few words which admirably express the work of Stead as editor of the *Pall Mall Gazette*, "I shall speak for all the despairing silent ones. I shall interpret the murmurs, the grumbings, the tumults, the unintelligible voices, that through ignorance and suffering, man is forced to utter." And again he says, in speaking of the consolatory influence of the Psalms on him when a boy at a boarding school, miserable and forlorn, "Take them all round, the Psalms are probably the best reading in the world when you are hard hit and ready to perish."

Not without labor have the noble utterances of Archdeacon Farrar been given to the world. For the mind and character of Milton, he says, he has felt from boyhood upward a supreme admiration, and he could go on with any quotation if a line from *Paradise Lost* were given. Let our teachers see to it that when giving recitations to pupils, only the finest passages from the best authors are given; let not the memory be burdened with anything inferior. A fine passage from Shakespeare or Milton, from Wordsworth or Tennyson, is a joy forever.

If then books are so great in their influences, let us see to it that we read those of which the tendencies are good. It is a strange fact that there are many who waste hours in studying silly trifling newspaper columns, when the pages of pure and good writers are uncut. How many parents know what their children are reading? How often are they satisfied when they see them sitting quietly reading, 'out of mischief'? Ah, then, often is serious and irretrievable mischief done. But in these days, when so much literature of a high class, fitted for the youthful mind, is to be found, it is inexcusable if any families in this fair Canada of ours lack for literary food of the very best.

J. C., NIAGARA.

On the Cliff.

Just where the sand is warm and bright,
And strewn with shells to-day,
Bathed in the stainless morning light,
In his last sleep he lay.

I think the angels watched the place
And linger here with me,
And tell me I shall see his face
Where there is no more sea.

I hear them come on quiet wings
When all the earth is still;
God will reveal His hidden things
To those that do His will.

I loved him with a woman's heart,
Strong, passionate and deep,
The love that lives its life apart
And wakes while others sleep.

And lighter spirits laughed and sung
When boats put off from shore,
But I went in with silent tongue,
And shut the cabin door.

Only one little year has flown
Since Lizzie's man went down,
But she no longer bears alone
Her basket to the town.

And Nell has found another mate,
And made another nest;
But in my empty house I wait
Till God shall give me rest.

And often when the silver sails
Glide out to meet the dawn,
I say "His promise never fails,
His love is not withdrawn."

I, too, shall go to meet the day
That knows no setting sun,
And my dark years shall fade away
When the new home is won.

SARAH DOUDNEY, in *Sunday Magazine*.

Jottings.

Notice of Sale.—Mr. F. A. Fleming, of the Park, Weston, announces his intention of selling by public auction about the 15th April, thirty five head of Herefords, all finely bred, and either imported or from imported stock.

Silos.—The question of silos and ensilage are rapidly coming to the front. Those interested will do well to give a most careful perusal to the excellent article of Mr. Cheesman on the subject, in the dairy department of this issue.

Provincial Exhibition.—The Forty-Third Annual Provincial Exhibition will be held in the city of Kingston, September 10th to 15th, 1888. We trust that the different exhibition associations in arranging dates will do so in such a way that they will conflict with one another as little as possible.

The Dominion Draught Horse Breeders' Society. The entries for the first volume of the stud book of this society will close March 1st. All necessary particulars relating to rules of entry, standard, etc., will be given in next issue. James Mitchell, Goderich, is the secretary of the association.

Seeds.—We have just received the 37th annual seed catalogue from the reliable seed house of John A. Bruce & Co., Hamilton; also one from the well known seed house of Jas. J. H. Gregory, Marblehead, Mass., U. S. Their advertisements are in this issue along with that of Mr. Rennie, of Toronto. Catalogues free to all. Send for them.

Is the Estimate too High?—"I feel that the knowledge I have derived from each number of your JOURNAL is worth more than the whole year's subscription, or in other words I would not take \$10 and have it stop coming to my house. I believe if every farmer was made acquainted with it, that it would reach the homes of 99 farmers out of every 100 in the Dominion."—Chas. T. Garbett, Claremont, Ont.

Reduced Rates for the German Mills Sale.—Parties attending the great German Mills sale of Messrs. T. & A. B. Snider, on the 14th March, may purchase tickets for the round trip for 1/2 fare at any of the stations on the Canadian Pacific and Grand Trunk lines of railway, where at least ten tickets are purchased for this purpose.

The Sir Bartle Frere Group of Herefords.—We are indebted to Mr. Adams Earl, of the Shadeland Farm, Lafayette, Indiana, for the magnificent picture of Herefords, the Sir Bartle Frere group. Mr. Earl imports and breeds Hereford and Jersey cattle, but gives most attention to the former. Sir Bartle Frere (5582), 6419, was for years the lion of his herd, having been one of the most noted Hereford bulls ever bred.

Prize on Shropshire Downs.—At the suggestion of Mr John Dryden, M.P.P., Brooklyn, Ont., the Shropshire Sheep-Breeders' Association of England are offering a cup valued at £10, to be competed for at the next Toronto Industrial Exhibition. It will be given for the best pure-bred Shropshire ram and seven of his offspring, two of them ram lambs and five ewe lambs. The offer comes through Mr. Alfred Mansell, of Lythell, Mansell & Walters, Secretary of the Shropshire Association.

Agricultural Press Appointment.—Mr. David Young, late of Carmyllie, Arbroath, who has been for some years on the staff of the *Dundee Advertiser*, has been appointed to the editorial chair of the *North British Agriculturist*, in room of the late Mr. Wm. Macdonald. Mr. Young, like his predecessor, was brought up on a farm, and his practical knowledge of agriculture, combined with press experience, will doubtless well qualify him for the duties of this important post.

The Maxwell Binder.—We can justly speak in high terms of the excellence of this machine, manufactured by D. Maxwell & Co., of Paris, Ont. We have used one of these on our own farm for the past two seasons, and with a cost, in addition to oil and twine, of less than \$1. The first year, the driver was but 15 years old, and cut the grain without any assistance. The second year (1887) the same lad reaped 100 acres of grain, also without any assistance. Sometimes two horses were used, and at other times three. See the advertisement in this issue.

The Clydesdale Stallion Spring Show.—The 2nd annual spring show of the Canadian Clydesdale Association will be held in the city of Toronto, on the 15th March (Thursday). There will be a good list of cash prizes. A gold watch is offered as 1st prize for the best stallion, foaled prior to Jan. 1st, 1885, and a plough valued at \$47, for the best Clydesdale yearling stallion. W. Moffatt, Pawpaw, Ill., president of the American Clydesdale Association, R. Ness, Howick, P. Q., and A. Bell, Athelstane, P. Q., three excellent men for the work, are to be judges. It is expected that there will be a very fine exhibit. Mr. H. Wade, Toronto, the secretary, will furnish any information wanted.

A Pleased Purchaser.—Mr John Ferguson, Adamston, Ont., has written to the Messrs. T. & A. B. Snider, German Mills, under date of 16th Feb., as follows: "I would be glad to secure your catalogue of sale, and although the 14th March will be an awkward time for me to get away, I will attend your sale if at all possible. We have the Percheron colt Monarch, bred by you, still, and he has proved himself worthy of his name. He is monarch indeed wherever he goes, and his stock is turning out well." The Messrs. Snider will offer on the 14th, a number of stallions very similarly bred.

Ayrshire Amalgamation Rejected.—It is with very much regret that we notice the rejection of the proposal for amalgamation of the Quebec Ayrshire Cattle Breeders' Association, and that of the Ontario Association. We are not in a position as yet to criticize the steps that led to this decision on the part of the Quebec Association, but of this we have very grave fears, that the results will not be to the advantage of the future of the Ayrshire interest in the Dominion. One herd book for the whole Dominion is assuredly enough, and more than this, especially when the standard is different, must lead to endless bickerings and jealousies which cannot tend to advance the interests of this useful breed of cattle. A letter from Mr. Rodden bearing on the subject will appear in next issue.

Spring Fairs.—We have just received a postal card from Essex Centre which reads thus: "The spring fair and stock market of Essex Centre will be held there on Thursday, April 26th, 1888. Any persons wishing to buy or sell live stock or poultry will have the same advertised free of charge in the sale catalogues by sending to the secretary a description of the animals wanted to buy or sell, not later than March 10th. Sale catalogues sent free on application to the secretary after April 1st. W. H. Russell, Secretary, Essex Centre, Ont." This reminds us that the season of spring fairs is just at hand. It is encouraging to see that they are growing in favor. Many places which as yet have none might hold them with profit. They tend in a marked degree to encourage the production of good stock, and form a convenient medium for disposing of it.

The Wheat Crop of 1887.—In the *Farmer and the Chamber of Agriculture Journal* the estimated surplus of wheat in Russia, for 1887, was 70,000,000 bus., Austria Hungary, 18,000,000; Roumania and the Turkish Principalities, 10,000,000 to 12,000,000; British India, 3,000,000 from October to March 31st, 1888; Chili and the Argentine Republic, 6,000,000 to 8,000,000. The wants of importing countries are estimated at, Great Britain and Ireland, 130,000,000 to 142,000,000, Holland and Belgium, 20,000,000; the German Empire 8,000,000 to

10,000,000, Switzerland, 10,000,000; France, 20,000,000; Greece, 5,000,000, Spain and Portugal, 10,000,000 to 12,000,000, and Italy from 10,000,000 to 20,000,000. It is estimated that Ontario and Quebec will absorb the whole of the surplus in Manitoba and the North West. Every year our competitors in wheat production are waxing more formidable, and the evenness of the demand and production in the various countries preclude the probability of a very marked advance in wheat before next harvest. If our supply should prove insufficient for the wants of the Dominion, the price must then advance somewhat.

The Corbin Disc Harrow.—The company manufacturing this harrow in Prescott, Ont., commenced operations some four years ago with but six hands in their employ, and now the number is 30. The output for 1888 is to be double that of 1887. Their agents are contemplating carrying the business into the United States also. The No. 30 reversible harrow, three harrows in one, is the favorite. It turns the soil either to the tongue or away from it, and every harrow made will take a broadcast seeder attachment. It is invaluable in pulverizing sod when ploughed, and in preparing fall ploughed land for spring. The reason why this firm have done so well, is that they have manufactured a good article, the usefulness of which we have verified by use on our own farm. The St. Lawrence Manufacturing Co., also make an excellent wrought iron roller which will take a grass seeder, silent running, durable and easily turned, and has been proved by three years' use. The company also have the following general agencies, R. J. Latimer, Montreal, P. Q.; Johnston & Co., Fredericton, N. B.; Nicoll & Renaf, Victoria, B. C.; VanAllen & Agur, Winnipeg, Man., and all agents of the Massey Manufacturing Co.

SEND for the catalogue of the sale of the Maple Lodge Shorthorns owned by Mr. Jas. S. Smith, of Maple Lodge P.O., which will be held on Thursday, March 29th, 1888.

Stock Notes.

Parties forwarding stock notes for publication will please condense as much as possible. If written separate from other matter, it will save much labor in the office. No stock notes can be inserted that do not reach the office by the 23rd of the month preceding the issue for which they are intended.

The Breeders' Live-Stock Association, of London, Ont., is about to try an experiment which we hope may prove a complete success. They will hold their first annual sale of live stock on the Western Fair Grounds, London, April 3d to 6th. This will surely afford farmers and breeders a good opportunity of selling their stock. See advt.

Horses.

Through Mr. N. W. C. Baugh, we learn that the Messrs. McConnachie, of Clyde'sdale, N. W. T., are the owners of a fine young registered Clydesdale stallion which is doing good service in the neighborhood. We think with him that they deserve credit for bringing in a valuable stock horse when horses of a poor class are rather too plentiful. Mr. B. adds: "This country is well adapted to horse raising, and in a few years should be able to show some fine specimens of the equine breed. I hope you will continue your warfare on scrubs of all descriptions."

Mr. Wm. Rennie, seedsman, Toronto, writes: "I have just sold the following imported Clydesdale fillies to John E. Smith, Beresford Stock Farm, Brandon, Man.: 1. Mayflower vol. ix, foaled 24th May, 1886, sire Laird Darnly (3748), sire of dam, Darnly (222). 2. Carry of Glengall, vol. x, foaled 26th May, 1886, sire Cromwell (3542), sire of dam Old Times (579). 3. Lady Kenmuir, vol. x, foaled 9th June, 1886, sire Kenmuir Prince (1459), sire of dam Darnly (222). Mr. Rennie has still a number of stallions and fillies left of different ages, and also Shetland ponies."

Mr. Jno McDiarmid, Kinloss tp., Lucknow P.O., Ont., is the owner of the Clydesdale stallion Redgauntlet (5290), foaled 25th May, 1885; color brown, face and hind legs white, sire, Cheviot (2672), grand sire Darnly (222), dam Darling (4622), sire Craikmore Bob (2038), grand sire Hero (380), great grand sire Lochfergus Champion (449). This horse was purchased last May, from Andrew Montgomery, Nether Hall, Castle Douglas, Scotland, and was bred by John Frazer, Maxelfield, Kirkbean, Dumfries, Scotland.

Messrs. B. B. Lord, & Son, Sinclairville, N. Y., write under date of Feb. 23rd: "The outlook for the spring trade at the Sinclairville Stock Farm is indeed very flattering. This week the splendid imp. Percheron stallion, Riche 790 (10963), took his departure. He goes to Charleston, S. C., having been purchased by Mr. P. L. Mellon, a noted stock raiser of that state. Our horses are all doing splendidly, could not ask to have them come into the spring trade in better condition. The French Coach mare Desse, who won the admiration of so many horsemen at the last New York State Fair, is due to foal next month by the Government stallion Aquilla 21485. The value of this cross cannot be too highly estimated, and the offspring, if all right, will certainly be a gem. Our Holstein Friesians are also wintering finely. Have just commenced dropping their calves. Mr. H. Bollert, of the enterprising firm of H. & W. F. Bollert, Casell, Ont., who are too well and favorably known to your readers to need commendation at our hands, is now with us, making the selection of a few choice milk, butter and show cows, to put at the head of their already fine herd of Holsteins. The gentle-

man reports the demand in the Dominion for first-class, registered Holsteins, to be exceedingly good. We are pleased to note that they are meeting with the success their energy and enterprise so richly deserves." This firm are now making frequent importations from France of Percheron horses. In August last Royon d'Or, by Alaric and Cornelia, one of the handsomest horses that ever left France, was one of the importation. They also import from time to time a fine class of French coachers.

The Messrs. R. Beith & Co., Bowmanville, Ont., report the following sales of Clydesdales: "To Mr. Thos. Colquhoun, of Mitchell, Ont., Rakerfield (4190), foaled 1882, sire Pride of Galloway (1219), dam Jean (1348), by Farmer (1385), winner of 1st at provincial, Ottawa, and 2d at Ottawa, 1887; to P. McCullum, Forest, Ont., Royal Charter, (vol. x), by Roderick Dhu (4193), dam Kate of McChriston (vol. x), by Pride of Borgen (2332) one of the best in the stud; to Messrs. Dawson & Petty, Frankfort, Indiana, Masterdon (5210), and to John Bell, Lamaroux, Ont., Queen Anne, by Rich. III (1802), dam Maggie of Ardross (3858), by Lorne (419), also a Hackney stallion Norfolk Hero (515), a beautiful six-year old bay 16 hands high, bred at Teveral, Norfolk. He was a very popular horse in the old country. It is thus apparent that our Canadians are fully alive to the importance of retaining in Canada the best of the breed. The horses sold by this firm are proving fine stock horses. Mr. J. C. Norman, Beaulieu, Dakota, who last year bought Peer of the Realm and Lily of the Dale from the Messrs. Beith, and another filly in the immediate vicinity, writes in regard to the former, that he took 7 firsts, 2 seconds and two diplomas with them at the fall shows of 1887. Peer of the Realm and Lily of the Dale were each first in their class, and first as best stallion and mare on the ground."

Shorthorns.

Messrs. J. & W. B. Watt, Salem, Ont., winners of the Elkington Shield prize, Toronto, 1884, advertise in this issue their highly-bred bull Lord Lansdowne for sale, also a number of fine young animals.

Messrs. W. J. Isaac, Harwood, and George and Alex. Isaac, Bonanton, are now carrying on the good work of breeding Shorthorns similar in strains to those bred by Mr. John Isaac, now of Markham, Ont.

Mr. Samuel Allen, Bowmanville, Ont., has just bought the young stock bull Vandyke, from Mr. D. Dyer, Enfield, to take the place of Sir Arthur, which is now held for sale. The herd now numbers 18 head and they are very good individually.

Mr. James Tolton, Walkerton, Ont., has bought from David Rae, Ferguson, the 12 month Shorthorn bull Mountain Hero, to place at the head of his good, all-round Shorthorn herd. At the Guelph Central last fall he was the winner of first prize in his class and diploma as best bull on the ground.

The Messrs. John Cousins & Sons, Buena Vista Farm, Harston, Ont., write: "Stock looks well, especially the young stock. Yearling bull extra. Have to report death of cow Lady Dufferin. She was not a show cow, but her stock has been very successful, both male and female, in all our local shows. She was a great milker and raised nine calves—five bulls and four heifers."

Mr. Daniel R. High, Jordan, Ont., writes: "Our Shorthorn cow Mildred, dropped a bull calf Gold Dust, on September 22nd, 1887, color red and a little white, by our Golden Drop bull, Golden Robe imp., bred by S. Campbell, Kinnellar, Aberdeenshire, Scotland, and is doing splendidly."

Messrs. Richard and Wm. Weir, Glenmorris, have recently bought from Messrs. A. G. H. & H. McCormick, of Paris, the fine bull calf Billy Patterson, got by Baron Studley. His dam traces back to Red Rose, Imp. Baron Studley was bred by Mr. Geo. Ballachey, from the stock of W. Douglas, Caledonia. Billy Patterson is a roan of good size, and promises to make a good animal.

Mr. George Thompson, box 37, Alton, Ont., will sell his entire herd of Shorthorns, consisting of 7 bulls and 23 females, on the 28th of March. This herd, as stated in the advt., are of such useful strains as the Millerstains, Languages, Symes, etc. The cows are in good heart and regular breeders, and along with the heifers old enough, are bred to the bull Baron Campdown (47389). Parties met at Alton, on the Northern, night before and on day of sale. Alton is on the Toronto, Orangeville and Owen Sound branch of the C. P. R. Catalogues furnished when asked.

Mr. Wm. Cannon, Annan, Ont., writes: "The old imported cow Raspberry 7th, bought at the dispersion sale of the late John S. Armstrong, Eramosa, in 1834, has done very well with us. She was in calf to Butterfly's Duke, at time of purchase, a son of the 4th Duke of Clarence, and had a fine bull calf which we now use as stock bull. The next year, 1886, she had a fine heifer calf but not eligible for registry, owing to the sire used from the herd of Messrs. Watter, Salem. The third year a heifer calf from a bull of Mr. Jas. Hunt's breeding (Alma), and is again carrying calf to a bull from the Cranberry stock of Mr. Armstrong. We were unfortunate with the heifers bought at Bow Park on two different occasions, both having died."

Mr. H. K. Fairbairn, of Rose College Stock Farm, Bosanquet Tp., three miles from Thedford station on the main line of the G. T. R., reports that his Scotch Shorthorns are in good shape. His cow 5th Maid of Sylvan gave birth on Nov. 3rd last, to a fine c. c. by the Messrs. R. & S. Nicholson's imported Warrior, which makes the fifth cow calf in succession. The stock bull, 12th Duke of Sylvan, a red, 3 years, and bred by the Messrs. Nicholson, weighs 2250 lbs. in moderate flesh, and has done excellent service in the herd. He is by Prince Albert and out of the dam Venus. Another of the lot, a yearling heifer a full sister to a London prize winner, is a good one. Mr. Fairbairn also breeds light horses, patronizing such sires as Victor Gold Dust, and horses of the Hambletonian type.

Mr. E. Jeffs, Grange Park Farm, Bondhead, makes the following report of sales: "Shorthorn cattle: Bull calf and yearling heifer to H. D. Benson, Ladner's Landing, B. C.;

Advertising Rates.

The rate for single insertion is 18c. per line, Nonpareil (12 lines make one inch); for three insertions, 15c. per line each insertion; for six insertions, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not more than five lines, \$1.50 per line per annum. No advertisement inserted for less than 75 cents. Contracts broken by bankruptcy or otherwise, shall revert to the regular rate of 18c. per line.

Copy for advertisement should reach us before the 25th of each month (earlier if possible). If later, it may be in time for insertion, but often too late for proper classification. Advertisers not known at office will remit cash in advance. Further information will be given if desired.

FOR SALE. IMPORTED PERCHERON STALLION
Quetzel, aged 8 years, perfectly sound.
For particulars, apply to C. S. Smith, Tilsonburg, Ont. Jan-3

W. J. RUDD, Eden Mills P. O., near Guelph, breeder of choice Devon Cattle, Cotswold Sheep, Berkshire Pigs, and Plymouth Rock Fowls.

BERKSHIRES A few sows of Autumn litters still on hand. Not culled.
THOS. SHAW Woodburn P. O. County of Wentworth, Ont.

FOR SALE—5 choice young Shorthorn Bulls.
Send for prices. **E. JELFS**, Grange Park, Bond Head, Ont. Mar-2

FOR SALE TWO IMPORTED CLYDESDALE STALLIONS, sired by the noted horses Lord Lyons and Prince of Wales. Address, **WM. McLEAN**, Napier, Ont. Jan-4

SHORTHORN BULLS.
I have three very good young Bulls for sale, from 10 to 15 months old, good size and quality, and nicely bred. Prices moderate. **J. C. SNELL**, Edmonton, Ont. Mar.

For Sale—Two Holstein Bulls.
Bismark A, bred by A. Gifford, Meaford, coming 3 years old, Bismark Jubilee, 4 mos. Terms easy. Address, **mar-1 F. SILVERTHORN**, Summersville P. O.

Pure-Bred Guernsey Bull for Sale.
Fit for service this spring. Sire and grand-dam imported by the Experimental Farm. Will be sold cheap.
mar-2 THOS. BALLANTYNE & SON, Stratford, Ont.

FOR SALE CHEAP.
9 SHORTHORN BULL CALVES, 4 to 14 months old, registered in Dominion Herd Book. Address, **C. E. BARR**, Tweeddale P. O., Winona Station, Ont. Mar-2

For Sale—Young Bates Bulls
Fit for service, representing Duchess and Seraphina families. Pedigrees right. Low, fleshy, and on short legs.
CHEAP! CHEAP!
mar-2 J. F. DAVIS, Glanworth, Ont.

CHOICE BERKSHIRES
All ages, at farmers' prices. Sows in farrow to prize boars. All from imported stock of largest size.
W. G. CAVAN, Box 127, GALT, ONT.

FOR SALE
TWO SHORTHORN BULL CALVES, about one year old, sired by Endymion, a pure Cruik shank.
mar-1 WM. WILSON, Box 192, Hampton, Ont.

ENGLISH PEDIGREE STOCK.
Shire Horses, Hereford Cattle, Chropshire Sheep, Berkshire Pigs and Colley Dogs are bred and can be supplied by
mar-4 T. S. MINTON, Montford, Shrewsbury, England.

SHORTHORNS—Cows, Heifers and Bulls, some of the latter fit for service, always on hand for sale. Sires lately used imported Waterloo Warrier (47222) and British Sovereign of the Mantlini Booth family. **THOS. SHAW**, Woodburn P. O., Co. Wentworth, Ont.

FOR SALE.
A few good SHORTHORN females, some of them show animals and prize winners, in calf to an imported bull, can furnish a splendid young herd.
Michigan parties can visit me cheaply and quickly, just eight miles from river St. Clair, reasonable figures.
Address or see
ja-3 D. ALEXANDER, Brngden, Ont.

FOR SALE.
DRACHTI STALLION, Canadian bred, rising 1 years old color bay. He was got by the celebrated imported stallion, Duke of Lancaster. For particulars, address
J. WOOD, Freeman P. O., Burlington Station

FOR SALE—A ROADSTER STALLION
Rising 4 years old. color, dark bay, with black points. Winner of the first prize at the Industrial in Toronto for two years in succession. He is well broken to harness, and sired by Belmont Star No (1086) Wallace's American Stud Book Vol. IV. Also a few choice young SHORTHORNS of both sexes. For further particulars apply to **F. A. GARDNER**, Britannia P. O., Peel Co., Ontario.

Stock Notes.

yearling bull to R. W. Perry, Lloydtown, Ont.; 1 yearling bull to Geo. Jackson, Everett, Ont. South Down Sheep: 5 head (1 two shear ewe, 1 shearing ewe, 1 ewe lamb, 1 shearing ram and 1 ram lamb) to Mrs. Ann Newton, Pontiac, Mich.; 40 head (10 rams and 30 females) to G. H. Pugsley, Lockport, N. Y.; 1 pair of ewe lambs to A. R. Kidd, Peterborough; shearing ram to J. E. Stoddart, Bradford; ram lamb to A. McVitty, Bradford; ram lamb to A. C. Sloane, Bradford; ram lamb to C. Campbell, Bradford; ram lamb to W. McCarty, Bondhead, pair ewes, Leicesters, to W. Walker, Penville, Berkshire pigs: Boar to J. Walls, Clifford; bear to G. L. Sprague, Dexter; sow to A. R. Kidd, Peterborough; sow to J. E. Stoddart, Bradford; boar and sow to H. D. Benson, Laidner's Landing, B. C.; boar to John Shrigley, Allandale, sow to W. Johnston, Dunkerton, sow to D. M. Kay, Bradford, 2 sows to T. B. Rogers, Schomberg. Remainder of the stock doing fairly well.

At the Woodlawn Farm, near Copetown, Ancaster, Co. Wentworth will be sold by public auction, on March 25th, the entire herd of Mr. John Ireland and Mr. William Temple (Leicester 1. O.), 30 head of pure-bred Shorthorns, of which 15 are females and 5 males, 10 head of Shorthorn grades, 6 young horses and 17 Leicester sheep. The Shorthorns are of the fine old Bates strains, and many of them of Bow Park ancestry, notably the seven-year-old cow Lady Stanley 2nd, Adelta 25th and Adelta 19th, and in their ancestry such sires as Mazurka Duke 10553, Earl of Goodness 13th (69595), Earl of Goodness 5th (32510), 5th Duke of Holker (52082), the 523,000 bull Fourth Duke of Clarence (32407), and others of equal renown. Amongst the bulls Waterloo Duke 10th, a pure Waterloo, by 54th Duke of Oxford 55737, is grandly bred, as is also Wonderful by Mazurka Duke 10553. Trains met at Copetown on the G. I. R. on day of sale.

We are glad to learn of the prosperous state of the Colonus Shorthorns of Mr. Wm. Murray, Chesterfield, Ont. Regarding them, Mr. Murray writes: "I have lately sold to Geo. Graham, of Denfield, the imported bull Duke of Salisbury (52780). He is a short legged bull of good substance and grand quality, and of the highest breeding. We have a number of calves by him, of beautiful appearance. I also sold to James Cowan & Sons, Clochemore Galt, the young bull Prince of Colonus 2d, and to D. C. Munro, Elbridge, N. Y., another, Prince of Colonus 3d. Our stock is wintering well. Out of eleven calves within a few months, only three are bulls. Any person who appreciates the pleasure of looking at a perfect animal, by paying a visit to Mr. Smith, of Maple Lodge, Mr. Islington, of Stratford, James Cowan & Sons, Galt, or Mr. Graham, Denfield, will have their desire filled. The stock bulls at each of those places went from here. For majestic appearance, grand quality and general utility, they cannot be excelled, but (tell it not) they are too valuable to be converted into those lumps of tallow that are toted around the shows every fall, and which are of no practical use whatever. I got what was considered the best pen of fine shearing ewes, Oxford Downs, at Mr. Howard's sale in England, last fall, and have got an increase of nine, three rams and six ewes, four pair of twins and one single. There has been a good demand for Oxford Downs. We sold all we could spare, scattered over the U. S. and Canada, notably a lot of seven beautiful shearing ewes to Duncan Brown, Iona, Ont. Mr. Murray advertises in this issue the 2-year bull Duke of Vittoria, a Waterloo, got by 54th Duke of Oxford (55733).

THE EASTWOOD HERD.—We promised a word on the herd to be submitted at Eastwood on the 23rd inst., with Mr. L. A. M. Gibson, of Delaware, as auctioneer. Mr. Patteson has had refined auction sales of Shorthorns, and it may be presumed has always left in the stable the cattle that he thought indispensable to the progressive value of the home herd. His draft sales have been caused by inability to winter the large number of animals that three or four hundred acres of pasture enable him to graze during the summer. He has now decided to abandon Shorthorn breeding in favor of sheep and horses, buying steers to graze for five months and sell off the last grass. His herd, which we have had the opportunity of inspecting, includes choice animals from the herds of Mr. Richard Gibson, Mr. Heron, Mr. Smith, of Maple Lodge, Mr. James Cowan, Mr. Stone, Mr. Seth Heacock, Mr. Ireland, Mr. Adams, Mr. Douglas, of Caledonia, etc. There are three females of the Filagrec family, now deservedly popular in Kentucky, and uniting among the top crosses some of the best Bates bulls in the world. One of these, Fame 3d, is by imp Wild Eyes Cennaught, another by imp 5th Duke of Holker, and the third by Margurite Duke, son of the famous 17th Duke of Aurdie. We do not propose to give any catalogue description of the cattle. That can be obtained from the owner's catalogue, which will be furnished on application. Cows with calves by their sides and over a dozen heifers not yet served, will form an attractive gathering, and we shall hope to meet a large number of the breeders of Ontario at the ring side. Mr. Patteson has displayed considerable energy in all branches of live stock. He was among the first to send both horses and cattle to the old country, and his sheep have found their way into nearly every state in the Union. Such encouragement as may be afforded by attendance at his dispersion sale of Shorthorns he deserves. The stock have been wintered as usual, and nothing has been specially fed for the occasion. They will be found in good breeding condition—nothing more.

A correspondent furnishes us with the report of a sale of Shorthorns in Michigan, for which we gladly make room. It gives our readers in Canada an excellent opportunity of comparing prices. According to announcement, the sale of Shorthorns by James Conley, was held at Marshall, Mich., on Wednesday, Jan. 25th. A large number were in attendance, principally from Mich. The bidding was spirited at times, and the average given in the summary below, clearly proves that Michigan people have become convinced that the Shorthorns stand high amongst the beef breeds. The highest price paid was for the beautiful Cruickshank heifer of Mysie Turlington 2d, bred by T. W. Harvey, Turlington, Neb., and winner of the first premium at the Mich. State Fair, in 1886 and '87. She is still in Calhoun Co., having been purchased by D. Henning, of Wheatfield Mich. Col. J. A. Mann, of Kalamazoo, who by the way is one

FOR SALE.

ONE PURE AYRSHIRE BULL, 3 years old, 1 yearling and 2 Calves, 5 months old.
E. W. WARE, Hamilton, Ont.

AUCTION SALE.

Having rented my farm, I will sell by public auction, **Pure Holsteins, Horses, Cows and Implements.**
On March 21st, 1888. **L. BANER**, Aldershot, Ont.

FOR SALE

DUKE OF VITTORIA; red; calved Jan. 8th, 1886. Sired by 54th Duke of Oxford 55733; Dam, imp. Duchess of Vittoria. Of beautiful appearance, rare quality, heavy fleshed, nice head and horn, gentle and sure. Fit to head any herd of Shorthorns in the world. This adv't will only appear once.
mar-1 WILLIAM MURRAY, CHESTERFIELD, ONT.

FOR SALE

STANDARD-BRED HAMBLETONIAN TROTTER STALLION
BONNER MORRILL No. 4910 Wallace's Trotting Register. Can trot in 2:30 when fitted. Color, dark bay. Weighs 1,200 lbs., 16 hands high, sound. One of the finest stock horses in the country. Sire, Robert Bonner—record 2:32; he by Rysdyk's Hambletonian. Dam, Juliette, by Young Morrill, he by Old Morrill, he by Sherman Morgan. Sold as we have no use for him. **L. M. FULLER & J. M. FORD**, Fe-3 Cowansville, P. Q.

Three Cleveland Bay Stallions For Sale.
King Fairfield, rising 5 years old.
McArthur, rising 3 years old.
Bay Comet, rising 3 years old.
These stallions are all lightly bred; the three-year-olds are in-bred. Fairfield's dam was awarded first and diploma three years in succession at Toronto and Guelph Provincial. The dam of Bay Comet carried second at Toronto in 1835, 1886 and first this year as Carriage Brood Mare.
W. C. BROWN, Meadowvale, Peel Co., Ont. Farm, 1/2 mile from Meadowvale Station, C. P. R. Ja-3

FOR SALE.

TWO IMPORTED HORSES.
ONE Cleveland Bay, 3 years old, weighs 1,470 lbs., 16 hands high, winner of 3 first prizes and 1 silver medal. One Clydesdale, 2 years old, weighs 1,580 lbs., 16 1/2 hands high, and registered in 10th vol. C. S. B. of G. B., also C. S. B. of Canada, winner of 4 first prizes, also 12 varieties of pure-bred Poultry, at low prices. Bronze Turkeys a specialty. Correspondence answered by sending 3 cent stamps. Address,
ja-3 MAJOR THOS. HODGSON, Port Perry, Ont.

IMPORTED CLEVELAND BAYS FOR SALE.

I have three imported Cleveland Bay Stallions and one mare, in foal, also one first-class imported Shire stallion, and a good grade in each of the above classes. The stallions are all three and four years old, sound and good. For particulars, address,
FRED ROW, Avon P. O., Elgin Co., Ont., Canada.

Maple Lodge Stock Farm

IF YOU WANT A FIRST-CLASS YOUNG BULL
of good color and choice breeding, or a young **COW OR HEIFER**
of similar stamp, come to our sale on the 29th March.
See our advertisement on page 7.
JAS. S. SMITH, Maple Lodge P. O., Ont.

WANTED—A GOOD FARM HAND,
to work by the year. Without good references none need apply. In writing state wages. **JOHN SOULE**, South End, Ont.

Farm Foreman Wanted.
Married, to do general farm work and look after small herd of Shorthorns, etc., in the County of Halimand. House and firewood furnished. Please apply at this office, stating salary expected, and give reference and experience.

Stock Notes.

of the best auctioneers in this country, called the sale at eleven o'clock, and sold the entire herd in two hours, consisting of thirty-one (31) head. We give below a full report of the sale. The purchasers all belong to Michigan. To R. Dauherty, Colos, Mich., Brenda 5th, 6 years, \$100; Brenda 6th 2 years, \$50; J. S. Crosby, Greenville, Brenda 7th, 1 year, \$105; Lucy Harrington, 12 years, and calf 4 months, Harrington 1st, \$155; Lowland Star, 1 year, \$50; Lucy Harrington, 2d, 3 yrs, \$170; F. B. Garrett, Battle Creek, Mich., Lady Waterloo, 7 yrs, \$150; A Lockwood Marshall, Mich., Lady Waterloo 5th, 1 year, \$10; Grace Plumwood 4th, 3 yr., \$105; W. H. White, Marshall, Duchess of Albion 12 yrs., and calf Duke of Albion, 3 months, \$90; Duchess of Albion 5th, 2 yr., \$130; C. E. Bradley, Bedford, Rose Bud ad, 3 yr., \$90; D. Henning, Wheatfield, Mysie Turlington ad, 1 yr., \$125; Miss Wiley of Turlington, 4 yr., and calf Miss Wiley of Marshall, 4 mo., \$155; E. O. Humphrey, Kalamazoo, 40th Bell Duchess of Plumwood, 2 yr., \$80; 41st Bell Duchess of Plumwood, 2 yr., \$105; Bride 10th, 1 yr., \$85; J. K. Gilbert, Kalamazoo, Zealous Plumwood 5th, 1 yr., \$90; Oxford of Marshall ad, 1 yr., \$70; G. S. Twing, Marshall, Grace Plumwood 3rd, 8 yr., and calf Waterloo Grace 2 mo., \$175; J. Marshall, Lawton, Plumwood Bell 14th, 7 yr., \$50; J. E. Herrick, Big Rapids, Baron of Cornwall, 4 yr., \$20; 2d Duke of Waterloo 5 year, \$90; J. Cary, Marshall, Baron of Turlington 4th, 2 yr., \$105; F. W. Dickey, Marshall, Brenda's Waterloo, 2 mo., \$45; R. B. Jones, Battle Creek, Waterloo of Marshall, 3 mo., \$50; C. J. Lossing, Marshall, Hercules, 3 yr., \$45.

The dispersion sale of the entire herd of Shorthorns owned by the Messrs. T. & A. B. Snider, German Mills, will be held on March 14, as stated in our advertising columns. This herd has during recent years been one of the leading prize-winning herds in the province. From the catalogue of the Messrs. Snider we find that 26 females and 8 bulls will be sold, several of the latter fit for service. Four of the females are of the Matchless family, 2 are Gaiety's, 5 are Gean Blossoms, a celebrated family from Sittytion, Aberdeenshire, some of the famed Strathallan family, and others with more mixed breeding, but with splendid pedigrees. They are from such sires as Duke of Hamilton = 511 =, Bampton Hero = 278 =, Royal Bampton = 1030 =, Strathmore, Crown Prince of Athelstane (16585), Captain (2309), Perfection (37185), and Young Strathallan = 2926 =. The latter, the bull recently, in service in the herd, is by Royal Bampton = 1030 =, and out of the dam Rose of Strathallan, the famous show cow, which won 14 first prizes and 1 second out of 15 exhibits at leading fairs. The entire stud of horses will also be sold, including 5 imported Percheron stallions with the famous Bordine (754) (998) as chief. These are tried and sure horses in the stud. There are four grade Percherons, fine specimens; one coach stallion, Young Tom Kimball, and the exceedingly valuable Kentucky standard bred stallion, Crow's Smuggler, one of the costliest sires ever brought into Canada. There are three pure Percheron mares, two of which were imported four grade Percherons, like the stallions, sired by imported stock, and two carriage mares. This sale is one of the most important ever held in Ontario, and will without a doubt be largely attended. Arrangements have been made with the C. P. R. and G. T. R. whereby parties purchasing tickets to the number of ten at any one station will make the round trip for 1/2 fare. We understand enquiries are coming in so rapidly that the large supply of catalogues is likely to be exhausted.

One of the most important sales of Shorthorn cattle for the season will be held at Maple Lodge Stock Farm, Maple Lodge P. O., one mile west of Lucan Crossing, on the Grand Trunk (main line) and London, Huron and Bruce Railways, 23 miles west of Stratford and 16 miles north of London. Morning and evening trains from east and west on the G. T. R., and from the north and south on the London, Huron and Bruce R., stop at Lucan Crossing, and the mail train from the east arriving at one o'clock p.m., will stop at the farm. (See advertisements.) 18 head of grandly-bred Shorthorns will be sold at this sale, of which 8 are bulls from 1 to 23 mo. old. The females included are from 1 to 4 years old, and in calf to the very excellent sire Duke of Colonus = 912 =. Some of them are Cruickshank and of other Scotch families which have been so long noted amongst Shorthorns for their grand milking qualities. Mr. Jas. Smith, the owner of this herd, has bred Shorthorns since 1857. He was most careful in laying a good foundation on the best blood families of the day, and it has been his constant aim to improve steadily by the judicious use of the best of sires and by constant selection, until there are really no weeds any longer in the herd. It was from Daisy by Halton (12557) that much of the foundation stock sprang—a cow that was a most wonderful milker, and it is the perpetuation of this quality in the females of the herd that has led Mr. Smith in many instances to milk his cows and rear the calves by hand. The Syme cow, Duchess 1st, tracing through the sweepstakes bull, imp. Prince of Wales (18630), and Princess Royal 2d, from Bow Park, sired by Proud Duke (8879), the first five sires in whose pedigree were sold for over \$5,000 each, are also important factors in the foundation stock. There are also representatives of the Cruickshank cow, Lovely Queen 3rd, and the Constance cow, and Constance of the Manse. Such noted sires as the pure Princess bull Shenandoah 928, Royal Duke of Gloster 3155, a Provincial first prize winner, Gladstone 19854, Matchem 20377, from an ancestry rich in trophies of the prize ring, and Marquis of Lorne = 141 = bred at Uppermill, are represented in the herd. Baron Constance 5th (2189), illustrated in the April number of the Journal for 1887, headed the herd from 1882 until 1886, when the Lally Harrington bull Duke of Colonus = 912 = became his associate. Baron Constance 5th is rich in blood of Oxford, Geneva and Hillhurst sires, and even claims descent from the famous \$23,000 bull Duke of Connaught. The stock of this farm would make grand foundation stock for those about to commence a herd.

Aberdeen-Angus

Mr. A. Gilmore, of Huntingdon, Que., has placed his card in the Polled Breeders' Directory. Polled cattle are growing rapidly and deservedly in favor in Canada.

GRADE SHORTHORNS.

The subscriber can furnish enough good Shorthorn cows and heifers to stock a good sized Manitoba Farm. Will sell very cheap, to make way for pure Shorthorns. They are aged from five years and downward. Some of the females are soon due to calve, and would make good dairy cows. They possess from 2 to 13 crosses pure Shorthorn blood. THOS. SHAW, Woodburn P.O., Co. Wentworth, Ont.

DORSET HORNED SHEEP.

Dorset Horned Sheep, the most prolific, producing lambs twice within the year, the most hardy, and the earliest to attain maturity. Full particulars of DUKE & SON, Dorchester, England. my-11 or, STANFORD & ROLPH, Markham, Ont.

BULLS FOR SALE.

THE Imported Cruickshank Bull "Lord Lansdowne (51601)," and five Young Bulls from twelve to twenty-four mos. old. J. & W. B. WATT, Salem P. O., Elera G. T. R. and C. P. R. stations. mar-1

SHORTHORN BULLS FOR SALE.

EIGHT Young Bulls from 9 to 18 months old, got by my Sheriff Hutton bull "The Premier," one two years old by "Prince James" = 958 =. They are an extra good lot, and will be sold very cheap, as I am short of feed. Also ten choice Leicester ewes due to lamb in April. mar W. G. PETTIT, Burlington.

FOR SALE OR EXCHANGE

PILOTE a beautiful dappie grey, 7 years old, 17 hands high, and weighs over 2,000 lbs., strong bone, good action, with all the desirable points of a first-class Percheron draught horse. Pilote was sired by Picador, and obtained first premium at Regional of Chartres in 1880; first premium at Regional of Evreux in 1880; first premium at Regional of Mamou in 1881, and was bought from the administration of the French Government in 1882. Pilote's stock in this neighborhood is conclusive evidence of his qualities. Will be sold on reasonable terms, or will exchange for land. I have also twenty others for sale. TROTTERS, ROADSTERS and WORKING HORSES. For illustration of Pilote see page 62, February Journal. M. O'CONNOR, Box 531, GUELPH, ONT.



Clydesdale Stallion SPRING SHOW.

The Second Annual Spring Show of the Clydesdale Association of Canada will be held in the CITY OF TORONTO,

On Wednesday, March 14th, 1888

(Not the 15th, as stated in a jotting.—Ed.)

A good prize list is arranged for, including cash prizes and other valuables. Entries should be made early. For prize list and full particulars apply to the Secretary, H. WADE, Toronto.

FOR SALE!

PERCY & YOUNG

Bowmanville, Ont.

Home of the Provincial Renowned Manfred (1755).

Have on hand for sale, on very reasonable terms, their 1887 importation, consisting of 8 very choice and carefully selected

REGISTERED CLYDESDALES

prize winners, of very superior quality, form and finish, consisting of 3 two-year-old stallions, 2 one-year-old stallions, 1 four-year-old mare, 1 filly two years old, 1 one-year-old filly.

Our importation consisted of the get of Lord Erskine, Cairn-brogie Keir, Good Hope (by Darnley), Crown Jewel and other noted sires.

We invite the attention of intending purchasers to the rare individual merit and excellence of our stock.

Also two very fine Canadian-bred Stallions, 3 and 4 years old, almost solid colors, sure foal getters.



Stock Notes.

Galloways.

The card of Wm. Kough, Owen Sound, Ont., will be found in the Polled Cattle Directory. His favorites are Galloways. Send to him for catalogue of his stock.

Ayrshires.

The Ayrshire herd of Mr. E. W. Ware, Hamilton, now numbers 41 head, one of the largest herds in the Province of Ontario. They are all finely handled, and from stock bred by Mr. Jardine and Mr. Rodden, Plantagenet. A number of the herd are bred from Stoncalsey, imp. the Experimental Farm bull. The cows are very good milkers.

The Messrs. Caldwell Bros., Orchardville, Ont., have now 17 head of pure Ayrshires, bought from the herd of E. P. Ball, Derby Line, Vermont. Also a number of grade Holsteins. They also own 14 head of roadster horses.

Holsteins.

The third semi-annual auction sale of thoroughbred Holstein cattle owned by the Wyton Stock-Breeders' Association, Wyton, Ont., will be held in London, at the Western Hotel, on March 20th, commencing at one p. m. (See advertisement on another page.) There will be sold 3 heifer calves, 9 yearling heifers, 2 three-year cows, 4 four-year cows, 5 yearling bulls and 1 two-year-old, all bred by the Association. Without any doubt, the butter dairy industry is soon to become one of the leading industries of the Dominion, and those who are foremost in securing good cows for producing the right type of dairy cattle will reap the first fruits of the harvest, which are always the best. The Holsteins have shown themselves famous as butter makers, and those who are desirous of improving the milking qualities of their cows cannot do better than purchase a pure Holstein bull. So impressive are the sires of this breed that in two or three generations the progeny cannot be distinguished from the pure by the naked eye. This herd is built upon stock from the famous herd of Smiths, Powell & Lamb, the annual milk records of which include a number of 100 cows ranging from 11,318 lbs. a oz. to 26,021 lbs. a oz. Fifty-two cows have produced an average of 20 lbs. 1 oz. of butter in 7 days. At the New York Dairy Show of 1887, it will be remembered that of the five highest butter records made, the three first and the fifth were made by Holsteins. The milk of Holsteins is wonderfully adapted to the raising of calves. Additional particulars of the sale may be had from the secretary, Wm. B. Scatcherd, Wyton, Ont.

Messrs. A. C. Hallman & Co., New Dundee, Ont., write: "We are pleased to state that the demand for Holsteins is very encouraging. The price, so far, seems to have been the greatest difficulty, but shrewd dairymen are bound to have them and are finding it a very profitable investment. The best proof is, that where they have once gained a foot-hold, they are bound to stay. The improvement in our Canadian cattle is very remarkable. Parties that supported us in the start are highly pleased, and find their young cows milk heavier and longer than their old matured cows, and the support is stronger every year. We are getting very flattering reports from our customers, which still more substantiates our experience. We sold a very choice bull calf to months old, to Mr. Jas. Elliot, Blue Vale, Huron Co. This young bull, Crown Imperial, H. F. H. B. No. 7804, is a very choice animal, and won first prize at London exhibition, 1887. This, we believe is the first male in that section and reflects great credit on Mr. Elliot for securing a bull of such high merit. His sire, our noted herd bull Prairie Aaggie Prince, H. F. H. B. No. 2, has no superior for choice breeding and individual merit, and like all his stock, is a true characteristic of his sire. We also sold a very promising young bull to Mr. A. Young, from Princeton, which we are sure will be a good investment. Mr. Young is a great dairyman and milk shipper, and knows what he is doing. Our imp. cow Mina Roolder, (an Aaggie cow), dropped a fine heifer calf, sired by our young herd bull Emperor of Canada. This bull is a grand-son of the noted Netherlands Prince, owned by Smith, Powell & Lamb, Syracuse, N. Y., sire of Netherlands Princess 4th, butter record in 7 days, 21 lbs. 10 1/2 oz. unsalted butter, and 20 lbs. 6 oz. in thirty days, age only 28 months old. This bull has very rich blood and we expect great results. Artis Kossie, imp. cow, also gave birth to a heifer calf, a very fine calf, sired by Prairie Aaggie Prince. We have still a good choice of young bulls on hand, which for choice breeding cannot be surpassed in the Dominion. Prices lower than ever; stock strictly first-class.

Sheep.

CORRECTION.—In the prize list of the Western Exhibition held at London, last autumn, and published in the JOURNAL, the 2d prize for aged ewes in Lincoln sheep was credited to James Murray, Clanbrassil. It should have read C. J. Campbell, Mayfair, instead.

Mr. Geo. Ballachey jr., of Branford, Ont., has purchased a few choice imported Shropshire Downs from J. Dryden, M.P.P., Brooklin, Ont. Also a young bull Waterloo Duke 25th, from Bow Park, and three imported Shetland ponies, a male and 2 females, from Mr. Arthur Johnston, Greenwood.

Messrs. John Miller & Son, Brougham, Ont., write: "We have sold since last writing you a large number of Shropshires, the list of which would be too long for publication in detail, so we will give it you in bulk. Three carloads to W. J. Garlock, Howell, Mich.; two carloads to R. R. Smith, Howell, Mich.; one carload to Montague Bros., Chubb's Corners, Mich. (shipped to Howell), making six carloads shipped to one station, and about sixty head shipped in small lots to different parties in Canada, York State, Michigan, Indiana and Iowa; three Shorthorn heifers and one bull to Messrs. Ladd & Reid, Portland, Oregon; two Cotswold rams to same; 1 Clydesdale filly, 1 Shorthorn bull and 1 heifer to Luther Adams, Storm Lake, Iowa; 1 heifer to Daniel Burns, Athelstane, Que.; and 1 Clyde mare to David Halliday, Dunmore, Ont. We have a lot of good stallions and bulls for sale. Stock wintering well."

First prize strains of **PLYMOUTH ROCKS, LIGHT BRAHMAS, BLACK HAMBURG EGGS**, \$1 for 13. Carefully packed in baskets. Satisfaction guaranteed. Address, G. H. RICHMOND, 125 King Wm. St., Hamilton, Ont.

GEO. LEE, Highgate, Ont., breeder of **WHITE LEGHORNS** exclusively. My yard for this season contains to extra fine hens and pullets, mated with "Admiral," score 95½. Eggs only \$1.50 for 13. mar-3.

W. B. COCKBURN, ABERFOYLE, ONT.

BREEDER OF

Plymouth Rocks and Toulouse Geese

My Plymouth Rocks won first prize on both old and young birds at Guelph last fall, only place exhibited. Eggs from these only—\$2 for 13. mar-3.

Eggs from Standard Wyandottes

Of the **Piquonok** strain, \$1.50 for 13. Cash to accompany order. Write for wants. **JAS. I. POUL**, Monkirk, Ont. mar 0

HENRY BAILEY, Highgate, Ont.

Breeder of **WHITE LEGHORNS** (Lee's strain) and **WHITE CRESTED BLACK POLISH**. Eggs \$1.50 per 13.

LAKE ERIE POULTRY YARDS.

E. W. EDSALL, Proprietor, SELKIRK P. O., ONT.



L. and D. Brahma, P. Rock, S. G. Dorkins, Wyandottes, Langshan, Polish, Leghorns, Houdans, S. S. Hamburgs, B. Spanish, and all kinds of Bantams; Pekin, Rouen and Aylesbury Ducks; Mammoth Bronze Turkeys.

EGGS from fowl, \$4 for 13; from ducks, \$3 per 13; from turkeys, \$4 per 12. Single birds, \$2, \$1, \$5 and \$10. Per pair, \$3, \$5, \$7 and \$10. Per trio, \$5, \$7, \$10 and \$15. A few choice birds for sale now. mar-6

PLYMOUTH ROCKS A fine lot of Plymouth

Rock cockerels and pullets of the famous Pilgrim strain magnificent layers are held for sale. Also eggs shipped to order. Prices moderate. **THOS. SHAW**, Woodburn P. O., Co. Wentworth, Ont.

WESTMINSTER POULTRY FARM

J. W. BARTLET, Proprietor, Lambeth P. O., near London, Ont.,

Eggs for hatching **DARK BRAHMAS** and **WYANDOTTES**. Stock equal to the best. Have won wherever exhibited. At the late Ontario Show my Brahmas won seven out of a possible nine prizes.

PRIZE-WINNING BIRDS FOR SALE.

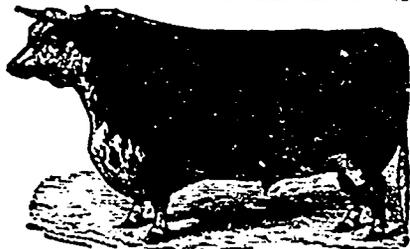
LIGHT and **Dark Brahmas**, **Plymouth Rocks**, **Langshans**, **W. F. Black Spanish**, **Houdans**, **White and Brown Leghorns**, **Colored Dorkins**, **Black Minorcas**, **Bronze Turkeys**, **Rouen** and **Pekin Ducks**, **Toulouse Geese**. Upwards of 60 prizes at the recent Poultry Shows

EGGS FOR SETTING NOW READY.

Send three cents for circulars. Birds and prices right.

WM. HODGSON, BOX 12, BROOKLIN, ONT.

POINT CARDINAL HERDS.



HEREFORDS

Selected with great care from the celebrated herds in England. At the head of the herd stands the imported Marlow bull Rambler 6th (6620) 13314.

SHORTHORNS

Heifers and bulls for sale, mostly sired by imported Duke of Hazelcote 63th, 65707.

Also a number of fine Hereford grade heifers and young bulls. ap-5.

G. F. BENSON, Cardinal, Ont.

Colonus Stock Farm.

Shorthorn Cattle

of the highest breeding and individual merit, and

OXFORD DOWN SHEEP.

Young stock for sale of both sexes.

WM. MURRAY, CHESTERFIELD, ONT.

Stock Notes.

Thos. Ballentyne & Son, of Stratford, Ont., make a change in their card in the Breeders' Directory this month. They breed Scotch Shorthorns and Shropshire sheep.

CANADIAN BREED STOCK AGAIN TO THE FRONT.—We learn that Mr. Geo. Grogan, Pembina, D. T., gained first prize at Bathgate Co. Show, for his magnificent pen of Lincoln sheep headed with a ram which he purchased from C. J. Campbell, Mayfair, Ont. He also gained the diploma for the best pen of sheep on the ground, beating the pen of sheep that took the diploma at Minneapolis State Fair and Dakota State Fair.

Messrs. D. G. Hamner & Sons, Mount Vernon, write: Our Shrops are coming through the winter fine. Sales have been good. We closed the season's sales by sending to C. M. Christner, Haysville, our first prize shearing ewes, and also pair of ewe lambs.

A large crowd attended the sale of Mr. W. Thompson's stock near the village of Molawak, on the 22nd ult. The pure winning Shropshire flock evoked much competition. Among the bidders were Messrs Ramsay, of Dunville; I. C. Patteson, Hawkshaw; Crawford Brown, of Welland; Macfarlane, of Clinton; Beattie, of Wilton Grove; and many younger aspirants to show yard fame. The five imported ewes and ram were knocked down to Mr. Patteson.

Swine.

Mr. Chas. T. Garbett, of Claremont, Ont., writes: My Cotswolds are doing well. I have a nice little pen of imported and Canadian bred ewes. Ontario Chief, a Berkshire boar, is a splendid animal with a first-class pedigree. Have also a few finely pedigreed Berkshire sows, and the outlook is good for spring stock.

Mr. Wm. G. Cavan, Galt, Ont., writes: "I have lately purchased several choice Berkshires in England, and I expect them home in April. Among them are several prize winners, which are said to be extra large and good. I have lately sold during the last two weeks, one choice boar and two of my best sows, to W. T. Miller, Ky., U. S.; a sow to J. Kemp, Hazledan, Can.; a sow, R. Swartz, Muskoka; a sow, J. Barrell, Brantford; a boar, Hugh Knott, Kimberley; a sow, Jas. Elliott, Midland; a boar and a sow, W. Stinson, South Monaghan; a boar and 2 sows, J. Letlie, Evansville, Ind., U. S.; a sow, E. D. Hall, Belletrac, O., U. S.; a boar and 4 sows, R. Thomson, Madison, Wisconsin, U. S."

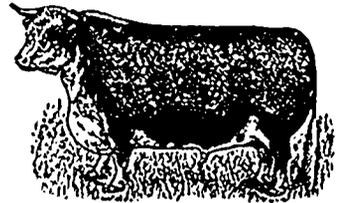
Poultry.

Mr. J. H. Houser, Canboro, Ont., has made the following purchases in fowls: From W. B. Cockburn, Aberfoyle, Ont., a trio of Brown China Geese; also a trio of Aylsbury ducks. They are fine birds, and were received in good condition, being shipped one day and received the next, which speaks well for Mr. Cockburn as a careful shipper.

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THE TUSHINGHAM HEREFORDS

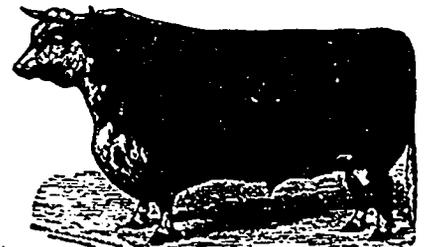


THIS herd, grounded on selections from the best blood in England, is remarkable for the number and uniformity of the good calves that it has produced during the three years of its existence, owing in a great measure to the excellence of the stock bull Tushingham (8127), by Charity 3rd (6359), by The Grove 3rd (5051). Several young bulls of his get are held for sale.

J. W. M. VERNON,

Tushingham House, Waterville, P. Q. WATERTVILLE is on the main line of G. T. R., not far from the United States boundary.

The Park Herd of Herefords,



THIS herd embraces over fifty head of choice animals. All registered. Catalogues sent on application.

F. A. FLEMING,

Weston. Co. York, Ont. Farm, half a mile from C. P. R. and G. T. R. Stations, eight miles from Toronto.

100 PURE-BRED ABERDEEN-ANGUS CATTLE



MOSSOM BOYD & CO.

BIG ISLAND STOCK FARM.

BOBCAYGEON, ONTARIO, CANADA. Ericas, Prider, Windsor, Victoria, Sybils, Kinnochry Bluebells, Westontown Roses, Ballindalloch Coquettes, and Lady Fonnys, and animals of other good families, both male and female, for sale.

Bobcaygeon is in the County of Victoria, 90 miles east of Toronto and 20 miles east of Lindsay, and is reached from Toronto by the Midland Railway, a branch of the G. T. R., via Lindsay, with which the boat makes close connection. Telegraph and Post Office, Bobcaygeon.

J. Y. REID, HILLSIDE FARM,

(2½ miles south from Paris.)



BREEDER of Shorthorn Cattle, all registered in the new Dominion Herd Book. The highly bred Bates bull, 7th Earl of Darlington, bred at Bow Park, at head of herd.

The herd is composed of a choice lot of young cows and heifers, all of the ROAN DUCHESS strain. Young stock at all times for sale. Apply to

James Geddie, Manager, PARIS, ONT

AUCTION SALE OF HOLSTEIN CATTLE

THE 3RD SEMI-ANNUAL AUCTION SALE OF THOROUGHBRED HOLSTEIN CATTLE

WILL BE HELD BY THE

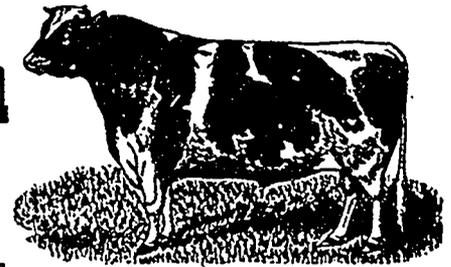


Wyton Stock-Breeders' Association

—AT THE—

WESTERN HOTEL.

RICHMOND ST., LONDON, ONT.



AT ONE O'CLOCK P. M., MARCH 20th, 1888.

There will be put up at auction, and sold the highest bidder, three Heifer Calves, five Yearling Bulls, one two-year-old Bull, nine Yearling Heifers, two three-year-old Cows, two four-year-old Cows.

☞ All of this stock is of our own breeding, which we guarantee in every respect. ☞

TERMS OF SALE.—25 per cent. down; balance, three and six months' joint notes, at interest. For further particulars and Catalogues, apply to

W. B. SCATCHERD, SECRETARY, WYTON, ONT.

PUBLIC SALE.

I will sell by Public Auction

On Wednesday, March 28th, 1888

At my residence, two miles from ALTON VILLAGE, on line of C. V. and T. G. B. Railways, my entire

HERD OF SHORTHORNS

consisting of 7 bulls and 23 females, some of them imported. They represent such strains as the Millerstains, Mysier, Laura, Languishes, Symes, and other well-known families. The herd has been selected and bred with care; none but first-class sires have been used. The cows have been regular breeders; some of them will have calves by their side, got by Corporal Grimson = D. H. B. #; most of the cows and all the heifers of sufficient age will be bred to imported Baron Camperdown (47389), now at head of herd.

As I am about to rent my farm all the above cattle will be sold without reserve.

TERMS OF SALE.—Seven months' credit on approved notes; six per cent. off for cash.

Conveyances will meet trains at Alton night before and forenoon of sale.

Cattle all registered in D. H. B. Send for catalogues.

GEORGE THOMPSON, Box 37, ALTON P. O.

IMPORTANT

AUCTION SALE!

Will be sold on Wednesday, the 21st March, 1888,

At Woodland Farm, Ancaster, 3 miles from Copetown Station, C. T. R., 30 pure-bred

BATES' SHORTHORN CATTLE

(25 females, 5 males)

10 head of Durham Grades, 6 Young Horses, also 17 Good Leicester Sheep.

Cattle are a fine lot, with sound and reliable pedigrees, and well worthy the attention of the public. Sale to commence at 11 o'clock a.m. ☞ Seven months' credit will be given on all sums over ten dollars. ☞ Catalogues will be ready about the 15th of February. Conveyances will meet all trains on day of sale at Copetown Station. Lunch at noon.

JOHN IRELAND, Copetown P. O.
W. N. TENPLER, Jerseyville P. O.

fc-2

TO STOCKMEN!

FIRST ANNUAL SALE

—OF THE—

Breeders' Live-Stock Association

—WILL BE HELD AT—

WESTERN FAIR GROUNDS, LONDON
April 3rd, 4th, 5th and 6th.

HORSES! CATTLE!

Breeders, Farmers and others will find this an unequalled opportunity to dispose of stock, as this sale is being extensively advertised throughout England, the United States and Canada, and a number of buyers have already signified their intention of being present. Entries should be made at once to insure insertion in Catalogue.

For further particulars apply to

DOUGLAS H. GRAND,

Manager and Auctioneer.

J. H. MARSHALL, M.P., President.

AUCTION SALE

—OF—

Ayrshire Cattle, Clydesdale Horses

AND FILLIES,

At Woodside Farm, Howick,

ON MARCH 22nd, 1888.

22 head of the best strains of Ayrshire blood and full registered in the Ayrshire Record of Canada. 3 Clydesdale Stallions and 2 Fillies.

Catalogues ready March 1st. One year's credit on furnishing approved joint notes.

Howick station, G. T. R., is one mile away. C. A. R. station is on the farm.

ROBERT NESS, Owner.

DAVID BRYSON, Auctioneer.

AUCTION SALE

20 Head of Thoroughbred

Shorthorn Cows, Heifers and Bulls

Either registered or eligible for registration in the Dominion Herd Book.

7 fine bull calves, from 12 to 15 months old, got by Imported Statira Duke,

AT MOULTONDALE STOCK FARM

DUNNVILLE,

On March 13th, 1888.

Several high grade cows, some with calves at foot. 1 pure-bred Holstein bull calf, 10 months old, got by imported dam and sire and eligible for American Herd Book. Several fine one year-old, two year, and three-year-old colts, DRAFT and GENERAL PURPOSE. Also some pure-bred SUFFOLK PIGS.

TERMS—7 months' credit on approved notes. DUNNVILLE is half way between Brantford and Buffalo on G. T. R.

☞ Sale to commence at 12.30 o'clock sharp. Catalogues after 1st March. F. J. RAMSAY, Proprietor, Dunnville, P. O.

A. C. HALLMAN & CO.,
NEW DUNDEE, WATERLOO CO., ONT.



Importers and Breeders of Thorough-bred

HOLSTEIN-FRIESIAN CATTLE.

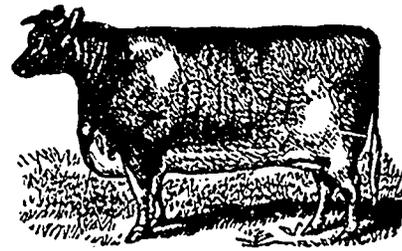
Herd headed by the noted prize-winner Prairie Aaggie Prince H. F. H. B. No. 2, first prize at the Industrial and Provincial in 1886; dam, Prairie Flower, 5 yr. old butter record of 20 lbs. 1 oz. unsalted butter per week. This herd has been crowned with more honors in the show-ring than any other herd in Canada. Selections made from the finest herds and most noted milk and butter producing families in America. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto, "QUALITY." Stock for sale. Visitors welcome. Correspondence solicited.

ATTRACTIVE PUBLIC SALE

OF HIGH-CLASS



SHORTHORNS



ON THURSDAY, MARCH 29th, 1888,

COMMENCING PROMPTLY AT TWO O'CLOCK,

At MAPLE LODGE STOCK FARM

One mile west of Lucan Crossing, on the Grand Trunk (main line) and London, Huron and Bruce Railways,
28 miles west of Stratford and 16 miles north of London.

At the above time and place, I will sell 18 Choice Shorthorn Cattle, of the best breeding and individual merit, including specimens of Cruickshank and other Scotch blood, and several very desirable animals, chiefly bred from the best Bates families. 8 of the number will be Young Bulls, from 11 to 23 months old, to which we call particular attention, as an unusually good lot. We claim first-class milking qualities for our herd, combined with those of the best feeders. The females included in the sale are principally from our best milking families, and are all from one to four years old, those of breeding age will be in calf to our superb and grandly bred stock bull, Duke of Colonus = 9282 =. They are all in good breeding condition, and will be sold without reserve.

Morning and evening trains from east and west on G. T. R'y, and from the north and south on L. H. and B. R'y, stop at Lucan Crossing, and the mail train from the east arriving at one o'clock will stop at the farm on day of sale to let passengers off.

TERMS—Nine months' credit on approved joint notes, or 8 per cent. per annum off for cash.

We will extend a hearty welcome to all who come, whether they wish to buy or not. Send for catalogue.

A. BROWN,
Avonton, Auctioneer.

JAS. S. SMITH,
Maple Lodge P. O., Ont.

AUCTION SALE OF SHORTHORNS

The undersigned is instructed to sell

AT VANSITTART HOUSE, EASTWOOD,

(A station on main line of Great Western Railway, four miles east of Woodstock.

On Wednesday, March 28th, '88

The entire Shorthorn herd of MR. T. C. PATTESON, comprising upwards of forty animals, mostly of Bates' blood, registered in the Dominion Herd Book.

Luncheon at 12. Sale at 1 o'clock.

All trains at Eastwood and Woodstock met.

TERMS—Six months' credit on approved security; 6 per cent. per annum off for cash

N. B.—The proprietor having determined in future to devote his stock-farm entirely to the raising of sheep and horses, the sale will be an absolute dispersal, without reserve. Catalogues on application to

T. C. PATTESON, Postmaster, TORONTO.

OR E GIBSON, Auctioneer, DELAWARE, ONT.

NOTE—The Editor of this JOURNAL being fully convinced of the bona fides of above sale will be glad to make purchases thereat for persons at a distance, charging only a small commission for his services.

THE BRIARS FARM

Sutton West, Ont.

Choice of 50 head of

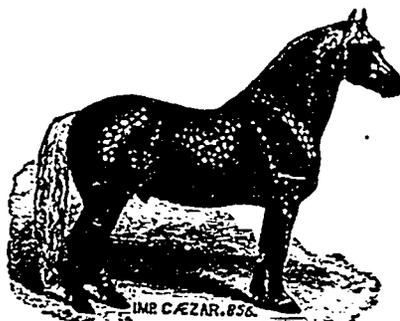
SHORTHORNS,

Including three yearling bulls, by Butterfly Duke 6th, he by 4th Duke of Clarence of Bow Park farm, all from the best strains, and registered in the Dominion Herd Book. Also young Horses and Pigs. Inspection invited.

F. C. SIBBALD.



Great Sale of Thoroughbred Stock AT GERMAN MILLS, On March 14th, 1888.



Consisting of 30 head **SHORTHORNS** Cruickshank and of Thoroughbred Imported and Canadian-bred

PERCHERON STALLIONS and MARES

also a few **COACHERS**. All the animals are of high individual merit. A large number of the different animals were prize-winners at Provincial, Industrial and other exhibitions. Making one of the grandest sales of the season.

Send for catalogue to the undersigned proprietors. Reduced fares may be secured for groups of ten on all stations on the C. P. R. and G. T. R. lines.

T. & A. B. SNIDER, German Mills, Waterloo Co., Ont.
OR STRICKLAND BROS., Galt, Ont.



Herefords for Sale

Four young Hereford Bulls, good animals, first-class pedigrees. Prices reasonable.

Our farms are four miles from Paisley station, six miles from Chesley, G. T. R.

McINTYRE BROS., PAISLEY, BRUCE CO., ONT.

JAMES HUNTER, ALMA, ONT.

Importer and Breeder of

**SHORTHORN CATTLE,
CLYDESDALE HORSES,
AND SHROPSHIRE DOWN SHEEP.**
127 Stock of both sexes for sale. mar-y



BOW PARK HERD OF



PURE-BRED SHORTHORNS

Have at all times a number of both sexes for sale. Catalogue of young bulls recently issued.

ADDRESS, JOHN HOPE, Manager,

Bow Park, Brantford, Ont.

RIVERSIDE STOCK FARM

1/2 miles from Exeter, on the London, Huron & Bruce Railway. The undersigned offers his entire herd of

SHORTHORNS

including the herd that was awarded and prize in Toronto, 1st in London, 1st in Hamilton, and a grand lot of young bulls fit for service and reg. in D. S. H. H. l. Prices moderate.

THOS. RUSSELL,
EXETER P. O., ONT



CLAREVILLE STOCK FARM

CAYUGA,

Lying between Canada Southern Railway, Dean's Station; Cayuga Station, Grand Trunk Air Line. I breed and have

FOR SALE

A-1 Shorthorns, Baron Constance 10th heads the herd.
L. icester and Cotswold Sheep, Berkshire Pigs, HEAVY AND LIGHT HORSES OF ALL KINDS.

Young Bulls a specialty. Supply always on hand. Come and See.

J. R. MARTIN, CAYUGA P.O., ONT.

RUGBY FARM.



J. S. WILLIAMS, Knowlton, P. Q.

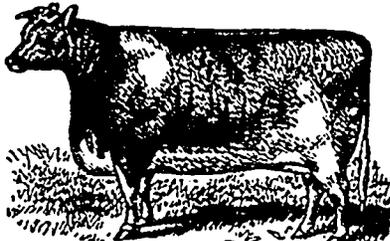
BREEDER OF

Shorthorn Cattle and Berkshire Hogs

Herd headed by the Bates bull Duke of Rugby, and bred with strict reference to individual merit and milking qualities. Animals recorded in both American and B. A. herd books. My Berksires are of the choicest breeding—large size and grand individuals. For prices and other information, address as above Aug-7

ARTHUR JOHNSTON,

Greenwood, Ont., Can.



I HAVE now on hand and for sale 10 extra good young home-bred bulls, all by imported sires and mostly out of imported dams, besides an excellent lot of imp'd and home-bred cows and heifers. All for sale.

I expect my recently imported young bulls and heifers home from Quarantine about January 25th, 1888. New catalogue now ready. Send for one. I have also a good lot of imp. **CLYDESDALE STALLIONS and MARES** for sale.

Claremont Station, C. P. R., and Pickering Station, G. T. R. Parties met at either station on short notice. Come and see them. No business, no harm.

JOHN DRYDEN,

BROOKLIN, ONT.

BREEDER AND IMPORTER OF

Shorthorns,

CLYDESDALES

AND

Shropshire Sheep.

IMPORTATIONS the past season include 125 Shropshire Sheep, and the entire herd of 41 Shorthorns owned by E. Cruickshank, Lethenty, Aberdeenshire. The best lot of young bulls ever received at Maple Shade are now offered for sale. Also a few choice cows and heifers.

Inspection invited. Catalogues on application.



C. G. Charteris & Son,

BEACHWOOD FARM, CHATHAM, ONT.

URBIDERS OF

Pure SHORTHORN CATTLE

The splendid young roan bull 10th Earl of Darlington, bred at "Belvoir," and possessing the blood of the Darlington, Oxford, Auldrie and other famous strains, at head of herd.

Four bull calves for sale, sired by Crown Prince (12166) and Lord Byron (8821), and a few heifers, all registered in the new Dominion Herd Book.

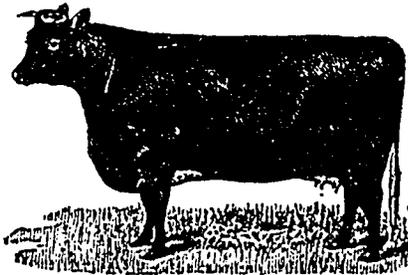
2 Miles from Chatham on the G. T. R.

Visitors met at station.

NOV-12

FRANK R. SHORE & BROS.

R. R. STATION, LONDON, P. O., WHITE OAK.



BREEDERS OF

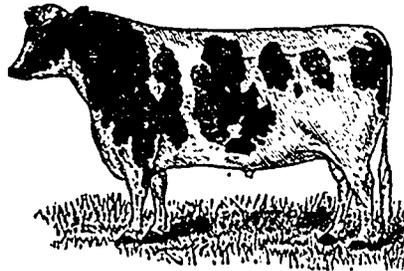
SHORTHORNS AND SHROPSHIRE

Have a grand lot of bull calves sired by our imp. Cruickshank bull Vermilion (50587), and a very choice lot of heifers, now in calf to Vermilion; also shearing rams and ram lambs from imp. sire and dams. Prices moderate. Terms easy.

J. E. PAGE & SONS,

AMHERST, NOVA SCOTIA,

On line Intercolonial Railway,



Importers and Breeders of

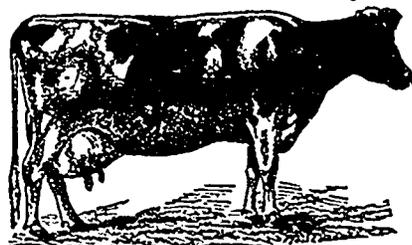
HOLSTEIN-FRIESIAN CATTLE

Including strains of the best milk and butter families living.

Herd headed by CLOTHILDE and's ARTIS, whose dam, Clothilde and, gave at 4 years old 27,602 lbs. of milk, and made 23 lbs. 4 oz. of unsalted butter in seven days when six years old. G. dam, Clothilde, winner sweepstake prize at New York Dairy Show, has milk record of 26,080 lbs. of milk and 28 lbs. of unsalted butter in seven days. Sire, Artis, winner first prize at New York Dairy Show.

Young stock, all ages, for sale, including Carlotta's Netherland Prince, dam Carlotta, with butter record of 22 lbs. 1 oz. unsalted butter; sire, Netherland Prince. Prices low for quality of stock.

The Manor Stock and Dairy Farm



HOME of the imported Holstein-Friesian bull MARS HELLIS No. 661, Vol. 1, H. F. H. B., selected in *Verth Holland* by special request, and whose 3 calves secured first prizes at the Dominion Exhibition, held at Sherbrooke, Que., Sept. last, 1886.

Parties wishing to secure bull calves or yearlings from such a grand individual, and out of nothing but imported Holstein-Friesian cows, will find it to their advantage to write to

F. N. RITCHIE,

Ste. Anne la Perade, Co. Champlain, on line C. P. R., near Quebec.

No Reserve. All stock for sale, and in A1 condition.

JAMES DRUMMOND,

Petite Cote, Montreal.

Importer and Breeder of

PURE-BRED AYRSHIRE CATTLE



Of Large Size, and from Choice Milking Strains.

The herd numbers 65 head, and for three years in succession has won Provincial or Dominion prize as best milkers. The imported bull PROMOTION (3212) at head of herd.

Young Stock on hand at all times for sale. fe-19

FOR SALE

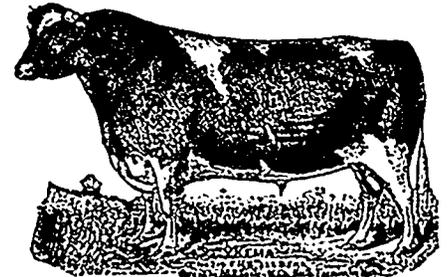
Holstein Cattle.

Owing to the large increase of my herd, it is necessary to reduce it. I will therefore sell any of my animals. All are choice. This herd won this year at Toronto Industrial, Silver Medal, highest award for best bull of any age, Dominion Silver Medal, highest award for best herd. At Provincial Exhibition, Diploma, highest award for best herd. At Central Fair, Hamilton, Diploma, highest award for best bull and four of his get, and won in money prizes the largest amount ever won by one herd in Canada at the same number of exhibitors.

No fancy prices. Easy terms of payment. Send for catalogue. Address,

JOHN LEYS, Toronto.

CREDIT VALLEY STOCK FARM. SMITH BROS.



CHURCHVILLE, (PEEL CO.) ONTARIO,

Breeders and Importers of Pure-bred Registered

HOLSTEIN-FRIESIAN CATTLE SADDLE and CARRIAGE HORSES.

Stock always on hand for sale. Send for catalogue. Visitors always welcome. jne-6

OAKLANDS JERSEY STOCK FARM

(All registered in the American Jersey Cattle Club (Herd Register.)



Cows with well-authenticated test of from 14 lbs. to 24 lbs. 13 oz. in one week, and from 87 lbs. to 206 lbs. 12 1/2 oz. in 31 days are in this herd. Young bulls (registered in the above herd book) for sale from \$100 to \$500 each.

A herdsman always on hand to show visitors the stock, and the stock-loving public are always welcome.

no-y **VALANCEY E. FULLER, Hamilton, Ont.**

SEND to Wm. B. Scutcherd, Wyton, Ont., for particulars of sale of Holsteins at London, on the 20th March.

THE GLEN STOCK FARM.

Innerkip, Oxford Co., Ont.

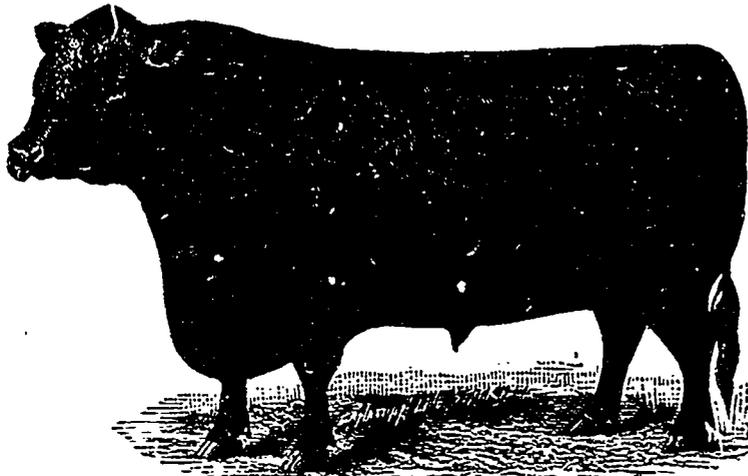
**SCOTCH SHORTHORNS,
SHIRE HORSES,
BERKSHIRE PIGS.**



Herd headed by imported Earl of Mar (47815), winner of the gold medal at the Grand Dominion and 39th Provincial Show, and numerous other prizes. P. O. and Telegraph Office at Innerkip. Farm is one mile from Innerkip station on the C. P. R. (Ont. div.), and a short distance from Woodstock station on the Canada Pacific and Grand Trunk R. R.

GREEN BROS., THE GLEN, INNERKIP.

CANADIAN HOME OF THE ABERDEEN ANGUS-POLL



Imp. Chivalry. (1765).

The Champion Bull Chivalry (imp.) (1765) 2691 [2]

Winner of First Prizes, Medals, Diplomas and Sweepstakes at Barrie, Collingwood, Ottawa and Toronto. Sire of Miss Charcoal, Mary 3d of Knockiemill, Master Peter of K. P., and the invincible Emma of K. P. 3174.

IN wishing our friends and patrons the compliments of the season, we take the opportunity of saying that we are in a position to supply young Bulls of the above excellent breed of cattle at prices within the reach of all, and as to their quality we need only mention that our herd finished this season by taking the medal and diploma, for the fifth year in succession, at the Provincial Exhibition, held in Ottawa. Send post card for our Illustrated Catalogue, and give us a call before investing.

HAY & PATON, Proprietors.

Kinnoul Park Stock Farm, New Lowell, Co. Simcoe, Ont., Canada.

HILLHURST HERDS

HEREFORD,

Aberdeen-Angus and Jersey

HEIFERS, COWS AND YOUNG BULLS FOR SALE

At reasonable prices, send for new catalogues.

M. H. COCHRANE, Hillhurst, Que., Can.



**GRAHAM BROS.,
CLAREMONT, ONT.**

RESIDENCE ONE MILE FROM CLAREMONT STATION.

Importers of
Registered

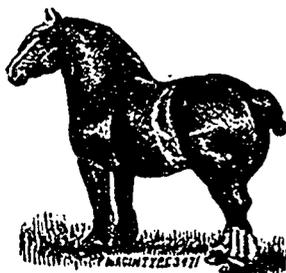
Clydesdale

STALLIONS AND
MARES

constantly on hand
and

FOR SALE

At reasonable terms



The importations of 1887 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.

COLDSTREAM STOCK FARM,

Whitby, Ontario.

We have on hand and for sale a superior lot of imported and home bred

Clydesdale Stallions

and mares. Several of them were prize winners at the leading shows in Scotland and Canada.

ALSO A FEW CHOICE SHETLANDS.

Prices to suit the times.

Address,

JEFFREY BROS., Whitby, Ont.



Parties writing to advertisers will please mention the JOURNAL.

SINCLAIRVILLE STOCK FARM

HOLSTEIN-FRIESIAN CATTLE,

Percheron and French Coach Horses

All stock for sale. Prices reasonable. Send for illustrated catalogue of horses.



Visitors always welcome. Examine our stock and prices before purchasing.

OUR herd of Holstein-Friesians, all ages and both sexes, is beyond question one of the finest in the world. Two importations in 1887 of Percheron and French Coach horses, personally selected from the best studs in France, have just arrived in excellent condition. Purchasers consult your best interests by examining this choice selection. They will speak for themselves.

**B. B. LORD & SON,
Sinclairville, Chautauqua Co., N. Y.**

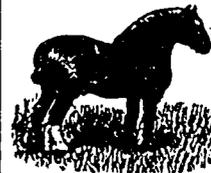
CLYDESDALES, SHORTHORNS

—AND—

SHROPSHIRE.

JOHN MILLER,

Brougham, Ont.,



has on hand for sale a large collection of prize-winning animals of the above breeds. The Clydesdales are large and of the best quality. The Shorthorns are of the best Scotch families and of superior individual merit.

Particular attention is called to our Stallions and young Bulls, which will be offered at moderate prices. Terms easy.

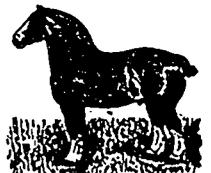
Residence, 3 miles from Claremont Station, C. P. R., or 7 miles from Pickering, G. T. R., where visitors will be met by telegraphing us at Brougham. Correspondence solicited.

CLYDESDALES

FOR SALE

Importation of 1887.

Not long arrived, a superior lot of



CLYDESDALE STALLIONS AND MARES

Ranging from one to five years old, including gets of the celebrated Lord Erskine, Belted Knight, Sir Wyndham, Warrior, Goodhope, Lord Kirkhill, Old Times, Pride of Galloway and Macgregor. Prices reasonable. Catalogues furnished on application.

ROBERT BEITH & CO., Bowmanville, Ont.

237 Bowmanville is on the main line of the G. T. R., 40 miles east of Toronto and 294 west of Montreal.

BROOKSIDE FARM

New Glasgow, Pictou Co., N. S.

STANDARD-BRED TROTTERS

American Cattle-Club Jerseys.

LIVE STOCK

Sale and Purchasing Agency.

JOHN DIMON

respectfully announces to gentlemen who desire to purchase horses of all classes, and other animals of all kinds, also carriages and harness, that he will receive orders for the transaction of such business for a commission of 10 per cent. Office, 25 Adelaide St (at his stables), Detroit, Mich. He will also attend auction sales, in any State, in the interest of his customers, and he feels that his experience of 38 years in the breeding, purchase and sale of horses, cattle, sheep, etc., and his experience as expert judge on live stock at the leading fairs in the U. S. and Canada, together with his extensive acquaintance with gentlemen, breeders and manufacturers should be of great value to intending purchasers as well as to farmers, breeders and manufacturers who wish to sell. References as to ability and responsibility cheerfully given.

J. F. QUIN, V. S., Brampton, Ont. Ridgling horses successfully operated upon. Write for particulars.

**REGISTERED PERCHERON HORSES
FRENCH COACH HORSES.**



We will be glad to see our friends and acquaintances and those with whom we have been in correspondence; in fact any and all who are in search of first-class PERCHERONS and FRENCH COACHERS, to look them over. We have an exceptionally fine lot, and our stud is so large that all may be pleased. We offer the largest number and greatest variety to select from. All our imported stock is selected by MR FARNUM himself, personally in France, and he accepts nothing but the best Horses of the most approved breeding. Our homebred stock is all the progeny of selected sires and dams of the best form and most desirable breeding. We guarantee our stock. Sell on easy terms and at low prices. We will be glad to answer all correspondence promptly, but we would strongly advise persons contemplating the purchase of a horse or mare, Percheron or French Coach, to get on the train and come and see us.

CATALOGUES FREE BY MAIL.
SAVAGE & FARNUM,

Proprietors of Island Home Stock Farm, Importers and Breeders,
Grosse Isle, Wayne Co., Michigan.

Address all communications to Detroit, Michigan.

IMPROVED YORKSHIRE PIGS

SHIRE AND CLYDE HORSES.

J. Y. ORAISBY, V. S.,
MEMBER

English Shire Horse Society.
Dominion Clyde Horse Association.
English Nat. Pig Breeders' Association.
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All our pigs registered in the English Herd Book.

URMSBY & CHAPMAN,

ONTARIO LODGE,
OAKVILLE, ONTARIO.

SHROPSHIRE SHEEP.

GEO S. CHAPMAN.

Imported and home bred stock for sale.
Every pedigree guaranteed. Prices low.
Correspondence promptly attended to.

"Good Stock with Straight Pedigrees," our motto.

**JAMES GARDHOUSE & SONS,
MALTON, ONTARIO, CAN.**

Breeders and importers of
**CLYDESDALE & SHIRE
HORSES,**

Shorthorn Cattle and Berk
shire Pigs. Young Stock for
sale. Terms reasonable.

**JAMES GARDHOUSE & SONS,
MALTON STATION,
Highfield P. O., - Ont.**



fe-1f

FOUR

Imported Registered

**Clydesdale Stallions
FOR SALE.**

All prize winners. Terms liberal.
G. S. SHAW, Bowmanville, Ont.



D. & O. SORBY,

GUELPH, ONT.

Breeders and Importers of
Clydesdales.

27 registered ones on
hand and for sale,
including gets of the fol-
lowing sires: Darnley,
Lord Lyon, What-Care-1,
Macgregor, Belted Knight,
Goldenberry, Corsewall,
Top Gallant and Prince

IMP. QUEEN
Charlie; of which 24 are Stallions and Colts, 8 of them our own breeding, which we can sell very cheap; the rest are Mares and Fillies, mostly in foal.

**Imported Clydesdales
FOR SALE.**

Prices moderate and terms to suit purchasers.

Not long arrived, a superior lot of registered

**CLYDESDALE
Stallions and Fillies**



from 2 to 3 years old, and with the exception of three all have been prize winners at leading shows in Scotland. Including gets of the celebrated sires Darnley, St. Lawrence, Lord Hopion, Macgregor, Old Times, Gallant Lad and What-care-1.

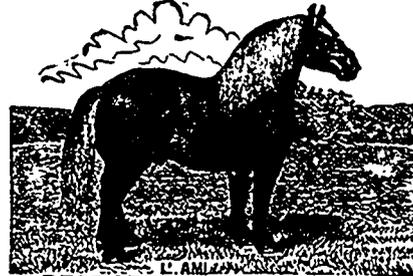
Our horses are all selected with the greatest care from the best studs in Scotland. We pay a little more for our choice than those who buy in job lots. Parties wishing to purchase superbly bred animals should inspect our stock.

DUNDAS & GRANDY,

Velverton P. O.,

Pontypool station on the C. P. R., 50 miles east from Toronto.

RIVERSIDE STOCK FARM!

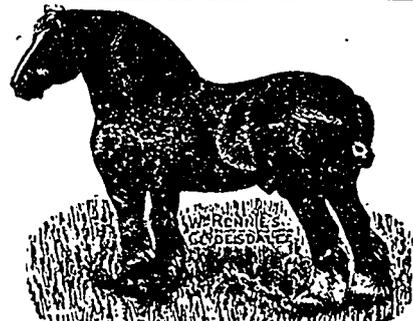


"DEGEN BROS., OTTAWA, ILL.,

Importers and breeders of

Percheron, Belgian Draft, and French Coach Horses.

We have now over 150 head of imported Percheron stallions and mares on hand. Our importations this year have been selected from the best breeding districts of France. Our Belgian draft horses are all prize-winners and recorded in Belgium and America. Our stock is all recorded in France and in America. Our French Coach horses are the best that could be found in France. We will be pleased to show our stock to visitors. Correspondence invited and promptly answered.



IMPORTED CLYDESDALE HORSES

23 HEAD lately arrived from Scotland, both sexes. Several of them prize-winners. This is a superior lot, bred by the following noted sires, viz. Darnley (222), Corsewall (1420), What-care-1 (912), McCammon (3818), Harold (2854), Belted Knight (1399), etc., etc., for sale at reasonable prices; also a few Shetland Ponies.

Stables, 88 Duchess St.

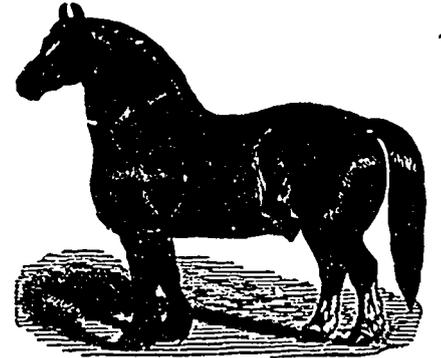
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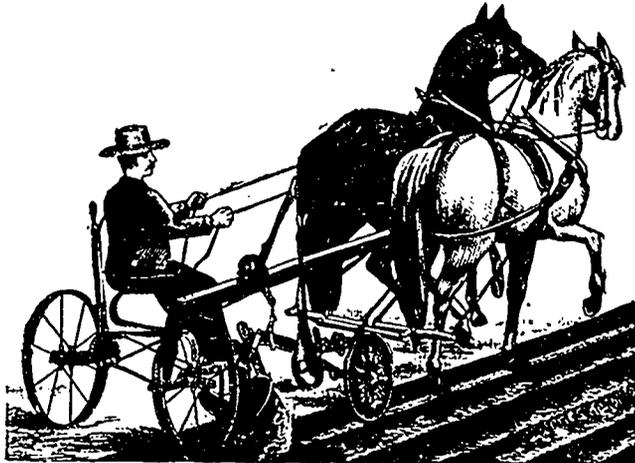
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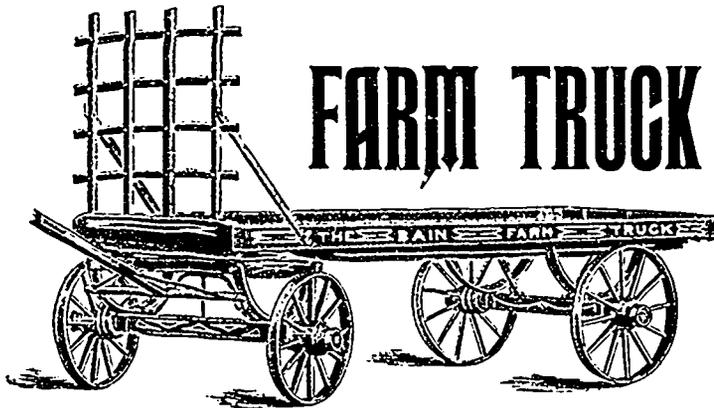
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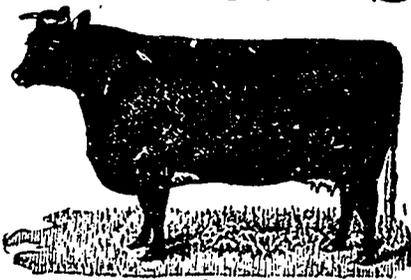
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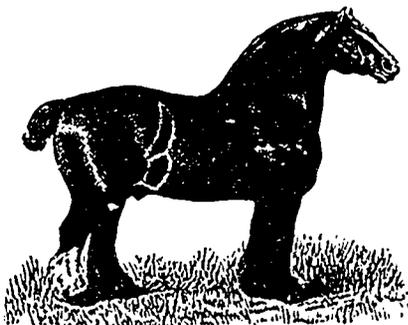
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