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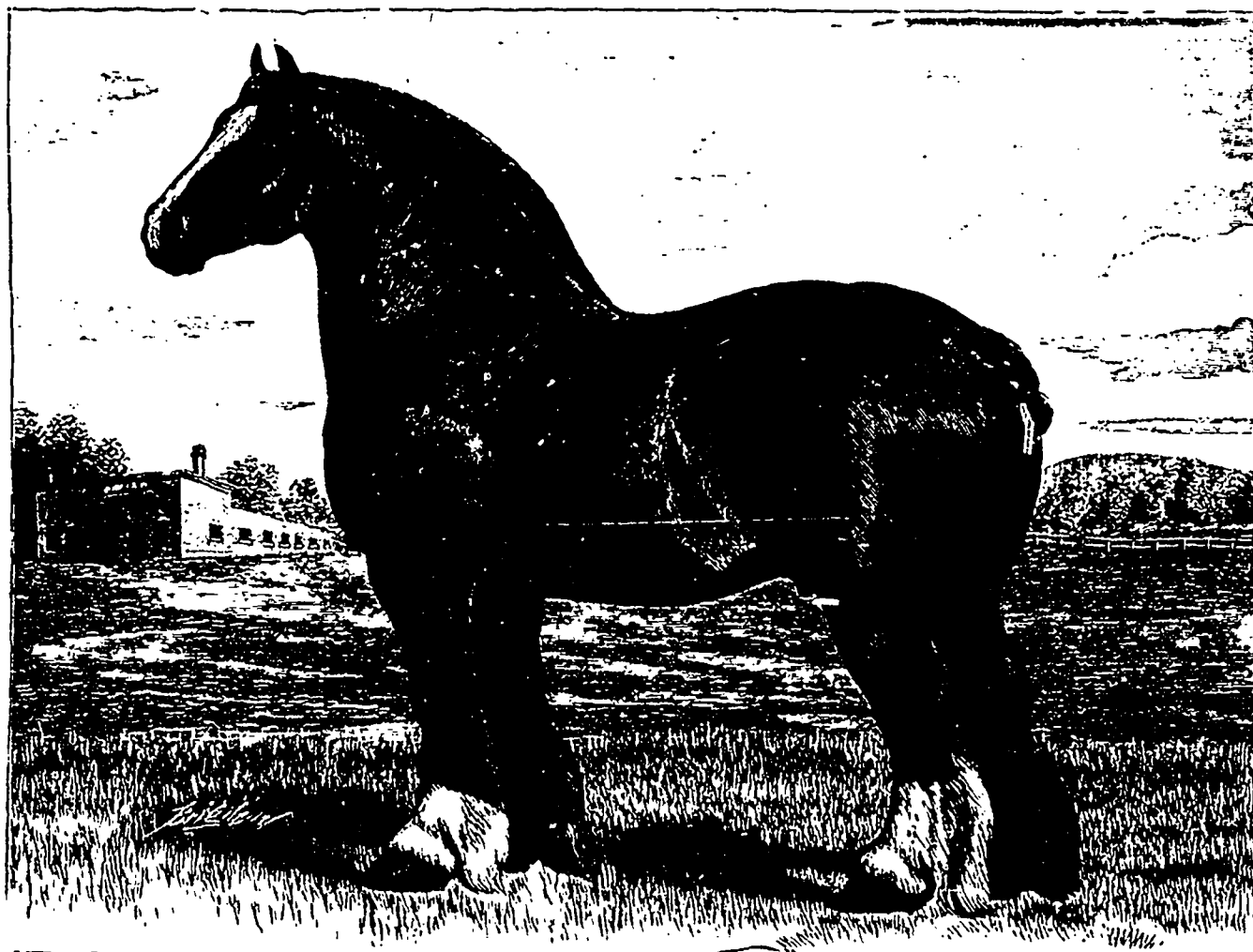
# THE CANADIAN LIVE-STOCK AND FARM JOURNAL

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

VOL. IV.

HAMILTON, CANADA, DECEMBER, 1887.

No. 50



THE CLYDESDALE STALLION BRAVISSIMO (4876).

*Imported by and the property of Mr. Wm. Rennie, Toronto, Ont.*

## The Clydesdale Stallion Bravissimo (4876).

This noble specimen of the breed, now owned by Mr. William Rennie, seedsman, corner Adelaide and Jarvis streets, Toronto, was bred by Mr. A. Williamson, Sypland, Kircudbright, Scotland, and imported by Mr. Rennie last August. Foaled April 24th, 1884, he is a beautiful bay in color, with ratch on face and near fore leg, and hind legs white. He is a powerful horse of the very best quality, with legs of nice flinty bone and fine feather, so much admired by Clydesdale breeders, and although in very moderate condition, would weigh about 1950 lbs. The longer you look at him, the more you admire him. For a horse so heavy he is a grand mover, with a style of his own and it is a very taking one. He was sired by Belted Knight (1395), by Old Prince of Wales (673); dam Meg of Sypland (444), by Gladstone (333). Sire of dam the noted horse Lochfergus Champion (449), the sire of the still more famous Darnley (222). Bravissimo is therefore right royally bred, which, along with his very fine individual development renders him a very desirable horse to breed from. He was a first prize winner as a foal, was not shown as a two-year-old; as a three-year-old he was much sought for at Glasgow as a season horse, but was retained for his own neighborhood, where he made a good season at a service fee of £4.

Belted Knight (1395), his sire, has been a great

prize winner; was 1st as a yearling at Stranraer, and 5th at the Highland Agricultural show at Perth. As a two-year-old he was second at Ayr, Glasgow, Royal of England and Highland Agricultural Society, and same as a three-year-old. He was engaged for service three successive seasons at Dumbarton, and his success in leaving first-class progeny has seldom been equalled. Nell of Auchtraburn (604), the dam of Belted Knight, was 2d at Ayr as a yearling—a mare that bred May Belle and Zoe, full sisters of Belted Knight, and she still breeds successfully. Meg of Sypland (444), the dam of Bravissimo, is also the dam of Charmer (2014) and other noted horses. This is a grand stamp of a true Clydesdale. He was three times 1st at Kircudbright and once at Dalbeattie, and is after Gladstone (333).

The foals that Bravissimo left in Scotland are of much promise, and he is to be retained this year for service in Toronto and the county of York, with promise already of making a most successful season.

## Weeds.

The progress made by this army of invaders is simply alarming. On they come, troop after troop, and squadron after squadron, to take possession of the fair heritage of the farmer. More numerous are they than the hosts of Tamerlane, and probably more destructive in the long run, if not of human life, of human effort. The weeds of the Dominion keep the farmers

thereof spending a large portion of the year in fruitless toil. They are forging for him the bands of a slavery that cannot but be irksome, and, like insatiable devourers, are eating the vitality out of his land.

Some have gone down to battle with the intruders, and with a heroism and perseverance that cannot be too much admired, are keeping them at bay. But, without more systematic co-operation on the part of farmers in each neighborhood, it is a strife that is most disheartening. It is like waging annual war with a countless host of grasshoppers on the border of their hatching grounds, and must in such a case exhaust the patience, if it does not break the spirit of the vigilant defender of his heritage.

Others again, like sleeping sentinels, are taken off their guard. Like the evil spirits of long ago, most dangerous weeds get foothold amongst the cereals of the farm, so secure, that it is most difficult to dislodge them, without the owners of the land being conscious of their presence, for they do not know them at all.

In the hope of assisting these, and of riveting the attention of the farmers as to the necessity of constant vigil and destructive warfare all along the line, we have secured the services of the masterly pen of Prof. J. Hoyes Pantou, of the Ontario Agricultural College, Guelph, to give us a series of articles upon weeds, commencing with the present issue. These papers will be illustrated to aid the reader in detecting the sly intruders. We surely do not require to urge our farmers to make themselves intimately acquainted with all the forms of weed life, to wage against them a never ending warfare.

# 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, 15 cents per line each insertion; for six months, 13c. 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, DEC., 1887.

**SPECIAL OFFER.**—Any person at present a subscriber can have his Journal renewed another year by sending two new subscribers and \$2.25—that is, he gets his own Journal one year for only 25c. Let every friend and well-wisher of the Journal send two new subscribers along with his renewal.

PLEASE examine your address tag. If it reads Dec. '87, your subscription expired with that issue, and we will be obliged if our readers will renew at once.

As the subscription of the bulk of our subscribers expires by the end of the year, we enclose an envelope and a blank order sheet to every subscriber. Those who have not already renewed will please do so at once, so that the great rush of work in the office at the end of the year may be avoided as much as possible.

ALTHOUGH several Institutes have been organized in Ontario during the present year, there are still several counties without one. We shall expect that some public spirited men will take up the work in each district at an early day. Who will be the foremost to move? The Institutes already existing in Canada are proving a lever whereby the farmers shall be stimulated to higher effort in their work. Their usefulness is so far recognized in several of the States that in Ohio it is proposed to hold one hundred of them during the coming winter, and in Wisconsin eighty one. Parties desiring any information regarding the methods of organization may obtain it by communicating with Mr. T. Shaw, 48 John street south, Hamilton, the secretary of the Permanent Central Farmers' Institute of Ontario.

In founding an ordinary pure bred herd it is very easy for those who have not had the experience to

go to needless expense. For one who has never handled pure-breds it is hazardous to pay very large prices for the sake of getting a particular strain, unless the appearance of the animal itself justifies it. Experienced breeders may be wise in doing this, for their more matured judgment may tell them that by proper handling the results will be good, while by hap-hazard mating the results may be very bad. The safer way is to get good animals which may be purchased for less money, and when one has proved to himself his own ability to handle them rightly, he may invest in the best of the best strains, or, better still, like some of the worthies of both centuries, build up new strains for himself. A more favorable time for the establishment of new herds than the present may not come for years again, as prices are ruling low. Let those who propose taking up the work do it at once, and be ready for the time when it shall be spring-tide again.

*We will gladly furnish sample copies of the JOURNAL to any who may be desirous of canvassing for it, or of forming clubs, if they will please send us a line to that effect. Many of our subscribers have already sent us the names of persons in their respective neighborhoods who are likely to engage in this work. If those of our friends who have no time thus to aid in increasing our circulation will forward the name, occupation and P. O. Address of someone in his locality who would take an active interest in getting new subscribers, we shall take it as a great favor, and will also forward sample copies to any of your neighbors who would probably become subscribers. We very respectfully request of all who think the JOURNAL worthy of a wider field to do what they can to extend the circulation.*

The taste for a leaner class of pork than is usually put upon the market has been gradually developing of late. Attention was called to this by one of our Toronto correspondents some time ago, and the matter has been a good deal discussed in both the English and American papers. The methods of reaching the desired end is the important problem. These are at least twofold. There must be in the foods used, an excess of the nitrogenous over the carbonaceous—more of oats, barley, peas, skim-milk, etc., and less of an exclusive corn diet. In the next place it may be advantageous, as recommended by Prof. Long, to "breed from longer pigs, which have longer necks, "heads and snouts, as well as longer ears, possessing "deep sides, broad loins and fine hams." Doubtless feeding the breeds that have for years been popular, in the manner indicated, would modify the tendency to produce so much of fat only, and beget in its stead a tendency in the opposite direction. Those who produce pork will do well to heed these indications in the popular taste, for we can no more stem a current of this nature, when once fairly set in, than we can stay the waters of a Niagara.

BECAUSE the prices of thoroughbreds are not so high just now as in other years, some are clapping their hands and saying, "I told you so. I knew that prices would come down," and they seem to find considerable enjoyment in the fact. But what about the prices of scrubs? We attended a country sale not very long ago when several scrub cows were put up. They were all due to calve some time in the winter, and one of them actually brought \$14, payable at twelve months, the others not selling at all, in consequence of the entire absence of bids. It would be strange indeed if, when scrub cows will not sell at all, that the prices for pure-breds should remain unaffected. A writer in *Hoard's Dairyman* (Oct. 21st) states that more dairy cattle

of the pure-breds have been sold in Wisconsin within the past three years, than in the previous ten years, and thus we are of opinion it has been also in Canada. The prices of other years are not likely to rule again, as pure-breds are becoming more plentiful. This will be a gain to the country at large, as they will thus become more and more extensively diffused. Those who breed them right will always in time be repaid for their trouble, and those who do not are not deserving of high pay. No one engaged in the work of breeding a superior type of any class of stock should for one moment stay his hand until the country is filled with them.

## SPECIAL CLUBBING RATES.

The "Journal" will be sent one year in clubs of three for \$2.55; in clubs of five for \$4; in clubs of seven for \$5.25; in clubs of ten for \$7.50, and an extra copy to the person getting up the club. The names may belong to different post offices, and may be either new or old subscribers. A little effort at Farmers' Clubs and Institutes, and other fall and winter gatherings and the work is done.

## Publishing the Prize Lists.

Our spirited and highly valued exchange, the *Breeders' Gazette*, of Chicago, comments on our remarks in reference to the above subject as follows:

"The CANADIAN LIVE-STOCK JOURNAL grows indignant at the neglect of the provincial newspapers to give due attention to the displays and awards in the live-stock and purely agricultural departments of the fairs. As the farmers constitute two-thirds of the population, it denounces this neglect as shameful, and calls upon the farmers to protest against it. Let them dip their pens deep in ink and record their remonstrances, and if these are not published they can live without the assistance of a journalism so unfriendly and unjust. A better remedy would be for the farmers to subscribe to the newspapers in question. The newspapers generally cater to the great body of their readers furnishing such matter as suits best the greatest number. If the farming interests do not receive due attention, it is probably owing to the fact that the farmers while constituting two-thirds of the population, are in a conspicuous minority on the subscription lists. We venture the prediction, that not one Canadian farmer in fifty is numbered among the supporters of our contemporary, although there is no denying the fact that it is an able and faithful exponent of their interests, and on this side of the line we believe, if every farmer in the State of Illinois took one agricultural paper, the entire circulation of all the agricultural papers in the United States would not be sufficient for their supply. The most intelligent and enterprising of the farming population, of course, subscribe for and read the papers, but they are in the minority, and the great mass of farmers either do not read at all, or select papers which are practically without influence or value, so far as furnishing valuable and practical information is concerned. Once induce the farmers generally to take the papers and to discriminate between namby-pamby publications, and those which are making an honest and legitimate effort for their advancement and instruction, and there will remain no occasion for complaint at the neglect of agricultural interests by any influential journal."

The criticism of the *Gazette* is very well put, so far as it applies (1) to the small minority of farmers who take an agricultural paper, and (2) to the tendency of a large proportion of those who do to be satisfied with "namby-pamby" publications labelled wheat while they are only chaff, but the writer has somewhat misapprehended our meaning. Our remarks were aimed at the ordinary newspaper rather than the

strictly agricultural paper, though perhaps we did not make this clear, for in this country it was these who became the first offenders, and are the principal ones now. Several of our provincial weeklies which have undoubtedly a far wider circulation amongst the farmers than amongst any other class, will publish full and copious notes concerning the exhibit of manufacturers and others, while they say not a word about the exhibit of the farmers or about their prizes, unless in the most general terms. It cannot be that these papers have a larger circulation amongst the sporting class than amongst the farmers, and yet the most minute details of every sporting scene is given, while the farmer is ignored when his turn comes, although it comes but once a year. We can only further reiterate the statement, "Let them dip their pens deep in ink and record their remonstrances, and if these are not published they can live without the assistance of a journalism so unfriendly and so unjust."

### The Journal.

Dark autumnal days, and forests bare, and desolated fields, remind us that the year is almost gone. With its expiration the JOURNAL will have reached the fourth year of its existence. While we frankly confess it is no more our ideal of what it should be and what it will be some day, than the four-year-old lad is the ideal of the full-grown man, yet we indulge in the hope that it gives promise of strong and full development with the passing of the years.

Wonderful have been the changes during the four years of its existence in the condition of the live-stock and farming interests generally of the Dominion. At that time beef for export brought as readily six cents per pound as it now brings five, an instance of those revolutions in trade which no human foresight can anticipate; and the price of cereals, especially wheat, has gone down below the cost of production. And all kinds of stock have suffered a serious decline in values, the poorer the class of stock the greater the decline. Farmers are therefore anxiously questioning what next to do in order to bring back the gains of other years. Our counsel is to stick to the helm, improve your methods, practice the utmost economy, and get all the light you can upon your great life-work, from books and papers, for the good ship of agriculture, now in the trough of the sea, will soon ride triumphantly again on the crest of the wave.

When the JOURNAL was first issued the Shorthorn camp was carrying on a suicidal war, now the breach is healed and the weapons of hostility are already coated with rust, and the breeding of this famous class of cattle is thus placed on a basis more secure than it ever stood upon before. Evidence of this is given in the shiploads that are being brought over at the present time despite the depression that is pinching the country.

Since that time the Ayrshire breeders have gone into union with their herd-books, which action, linked with the present hopeful attitude of dairying, gives brightest promise for the immediate expansion of the breeding of Ayrshires. Holsteins had then scarcely gained a footing in Canada, now they number several hundreds, and the Jersey interest grows apace. The number of the Aberdeen-Angus and Hereford breeders has doubled since then. The Clydesdale breeders have since formed an association and established a stud-book and vastly increased their operations. and other lines of horse-breeding have made much progress. The sheep industry has gone on apace, especially in the short wool lines, while since that time the Dorset horned breed have come to stay. Swine breeding has kept well to the fore, and the

poultry interest has grown apace. Cheese dairying has still held the fort in Britain, and the Creamery Association has been called into existence with promise of immense usefulness. The Ontario fat stock show has been inaugurated since that time with no doubt a great work before it to perform; and the farmers have now a Central Institute for the protection of their interests in the fierce struggle of the industries.

In all the lines of advance indicated the JOURNAL has taken a prominent part. It not only favored every one of them, but in several instances it has led the way, and the thought that it has been in any way helpful to the great live-stock and farming interests of the country affords a very great degree of satisfaction.

But the work yet to be done is without limit. In many of our live-stock lines we are without a public record. We have as yet little or no agriculture taught in our public schools. We have no minister of agriculture, whose whole time is to be devoted to that work. We have an agricultural college where there is room for an increased attendance of students from the farm homes of the Dominion. We have no system of uniformity as to time in the holding of our meetings of the various farming and live-stock associations. There are yet some counties without farmers institutes. Our trade relations with the United States are not of a satisfactory nature. Much of our arable and pasture land is yet only half-productive from imperfect drainage. Weeds are getting possession of our fields like the advance of an invading army. Scrub stock still disfigure our fields and mar our stalls with a mournful frequency; and we are still the prey of railway and express corporations in the transit of our goods.

All these things shall engage our attention during the coming year. We shall urge the establishment of a Shropshire Association during the early months of 1888, for we believe the rapid increase of the breed in this country calls for it, and we shall urge the Berkshire breeders to take action, ere long, in the same line. We shall call for the introduction of a text book in all the rural schools of the Province, before the arrival of 1889, for the importance of the interests involved demand it. We shall advocate the appointment of a Minister of Agriculture for Ontario, before the closing of the next session of the Legislature, and while doing so, we wish it clearly understood that we do not in any way reflect upon the gentlemen at present filling that office along with that of Provincial Treasurer. We do so on the ground that we believe that the Agriculture of Ontario is sufficiently important to engage the undivided attention of one minister of the government. We shall urge upon our farmers with tongue and pen, to seek a better education for their sons intended for the farm, and not to allow the splendid facilities afforded by the Ontario Agricultural College for acquiring a knowledge of the scientific side of their life-work to pass unimproved. We shall labor for uniformity in the time of the year for holding our annual live-stock and farm associations, on the ground of economy, and because we believe it would insure a larger attendance at all of them. We shall labor for the establishment of a Farmer's Institute in each of the electoral districts of the Province without one, being convinced they are one of the most potent agencies now at work in stimulating the farmer to higher effort, and in prompting him to achieve yet greater things.

We shall give useful instruction in regard to the methods of underdraining, and we propose, through the assistance of Prof. J. Hoyes Panton, of the Ontario Agricultural College, to make an onslaught on the pernicious weed system of the Province. Our attitude to all inferior grades of stock will be that of

no quarter, and we shall labor for a mitigation of undue charges in the transmission of the farmer's produce.

These are some of the planks of our platform for next year. This is a part of the work we have mapped out for ourselves. Those of our readers who are in agreement with us we shall expect to accompany us through another year, and to persuade all whom they can influence to come along with them as readers and subscribers. "To all who do we promise, as in the past, *the only live stock and farm journal in Canada made exclusively with the pen and pencil.* We shall give them candid information on all agricultural topics from Britain and America, and shall gather into our exhibit all that we can of what will be useful or interesting to the farmers of the entire Dominion. While we shall give special prominence to the departments of Live-Stock, The Farm, and The Dairy, we shall spare no pains in the improvement of the Horticultural, Poultry, Apiary and Home Departments, and we shall continue to protect our advertising patrons so far as in us lies, from injury on the part of designing men, as we did last year in the case of the "Red Lyon wheat" and other swindles.

The JOURNAL was this year again the only agricultural paper that published the prize-lists of our leading fairs, and it has done it *free of charge*, thus demonstrating its willingness to assist the farmer without being specially paid.

We cannot close this sketch without heartily thanking our patrons for the very kind and hearty assistance they have given us in the past. We hope that they shall at no time in future have occasion to withdraw this assistance, and while we part with them at the gateway of a dying year, we most heartily wish them the compliments of the season of Christmas and New Year festivities, that all of us have learned to love so well.

### Mr. Rennie's Imported Clydesdales.

The business of breeding Clydesdale horses in Ontario is assuming very large dimensions, notwithstanding that in more than half the counties none of these are to be found. Although the number of those produced annually is largely increasing from year to year, the increase does not keep pace with the demand. The market is very largely from the United States, where an increasing number of stallions is taken from year to year, more especially to the far west, and others are bought up for dray purposes in the great cities and taken over in the face of a duty of twenty per cent. A limited but an increasing number find a market in our own towns and cities, and as these grow, the demand for dray horses will also grow with them.

The breeding of heavy horses, then, may be looked upon as a very safe investment, providing it is rightly done, but our breeders must be upon their guard, more especially in these stringent times, lest they defeat the object they are aiming at by disposing of a class of mares that should be retained in the country. It would be much better for breeders to take an under price for a gelding than a double price for a really good brood mare, and also better for the country. The Scotch breeders are and have been very chary about the disposing of good brood mares, and we hope that our Canadian breeders will imitate them in this respect, for in this fact we have the key to the remarkable success to which they have attained over there in the breeding of Clydesdale horses. There is practically no limit to the market for heavy horses bred from really good mares and imported sires such as Mr. W. Rennie of Toronto, and others, are bringing over for breeding and sale purposes from year to year. It

is these that our Americans are more particularly anxious to buy if they can be put upon the market more cheaply than those brought from beyond the sea, when so much risk has to be run in the voyage over.

The principal reason why our Scotch friends can produce a more uniformly good class of horse than we, consists very largely in the fact that they use a better class of mares, and we hope that our breeders will so lay to heart the hints we have thrown out as to be on their guard against the temptation to part too readily with the best of their mares.

Mr. Rennie, so well known for his enterprise in the seed business, and for his success in the management of the seed farm in Markham, now that the farm is sold, is concentrating his energies more upon the importing and breeding of pure Clyde horses. He is most admirably situated for the purpose, having erected new and commodious stables at 88 Duchess street, Toronto, in the very heart of the old city, and but a few minutes' walk from the seed store at the corner of Adelaide and Jarvis streets. He has also secured the services of Mr. A. McLean, who is most enthusiastic in the work he has in hand.

We visited Mr. Rennie's stables early in November, and although the horses had arrived in August, a number of them had not yet recovered from a form of distemper popularly known in Scotland as "The strangles," which had been contracted while on the sea. The infection, therefore, came from the ship, and all the other Canadian importers in common with Mr. Rennie have suffered this year from the same cause. They are loud in their complaint, and justly so, that the ship-owners are not compelled by law to disinfect the ships used for carrying horses, after every voyage.

The importation of this year numbered 25 head, of which several are now sold, along with some very pretty specimens of fine limbed Shetland ponies. The secretary of the Clydesdale Scottish stud-book pronounced them one of the best bred lots of Clydesdales ever sent to Canada in one ship, consisting as they do very largely of the descendants of Prince of Wales (673), Darnley (222), and What Care I (912). They are of the strong, muscular type, and possess that quality which constitutes them easy keepers, and capable of producing a fine stamp of horses for the collar. Of those now on hand 2 are three-year stallions, 6 are two years, and 3 are one-year old. There are 2 fillies two years old, and 4 one year.

Of the three year-old stallions, one, Bravissimo (4876), is sketched and more fully described on the first page of this number. The other, Gay Boy (5028) by Trademark (3269), is a g. son of the old Prince of Wales (673). He is well named, being a good all round horse with a massive shoulder, very evenly made and of a good deal more than average spirit.

Of the 6 two-year-olds, The Real Mackay (5407), a bay with white stripe and hind heels, is by What Care I (912), by Old Prince of Wales (673), sire of dam Lord Lyon (489). He is a strong built horse which has had a hard fight with the distemper, and should make a good stock horse. Trojan, a bay, with white ratch and near feet white, will well stand inspection of a close nature. As a yearling in 1886 he won 3d at Lanarkshire county show, 1st at Markland, 2d in the Derby class at the Glasgow Agricultural, and in 1887 won the gold medal at Barhead as best horse any age. He is by Carswell (1420), a grandson of Prince of Wales (673). Sire of dam Darnley (222). Star of Stewarton (5376) by Darnley (222), of which there is only another living son in America, is from a dam by Lord Lyon (489). He has black points, and a broad white stripe on face, and is a broad

and well coupled horse. Knight of the Shire (5120), a bay with a silver mane and tail, and white hind points. He is sired by Knight of Snowdon (2212), out of a dam by Warrior (902). He will make a very smooth horse and lengthy, with free rein. The low chunk of a horse Silver Duke (5345), with first-class quality, is out of a dam by Young Champion 934, and from the sire Breadalbane (1978). Carnwarth (vol. x), a bay with orthodox white markings, is by Harold (2854), a son of Lord Lyon (994). He is a heavy horse, but lighter in the bone than some of them.

The 3 six-year-olds Body Guard, Udny Boy and Lorne, will all appear in vol. x. The first with white face and off feet is the prince of the three. Sired by Laird Darnley (3748) by Darnley (222), he has great bone and much compactness, with a good back and the best of quality. The second is a light bay, almost a roan, by MacCameron (3818), owned by an agricultural society in Aberdeenshire, which paid for him £4500. He, too, will make a powerful horse when in condition. The third, a dark brown, is by King of Craigie (2906), and out of a mare by What Care I (912).

The two-year filly, Lady Sceldon (vol. viii), and Fanny of Roadend (vol. x), are of good breeding, the former, a bay, by Breadalbane (1978), and the latter a dark brown by Marathon (2994). The one year-olds Lady Kenmuir, Carrie of Glengail, Mayflower and Nellie Darling (vols. x and ix) are of good parts, and rightly come. The first, a light bay, is by Kenmuir Prince (1459), and out of a dam by Prince of Wales (673), and the second, a bay, is by Carswell (3542), a grandson of Prince of Wales (673), and out of a dam by Old Times (579). Both possess much quality and promise. The third, a bay, by Laird Darnley (3748), and out of a mare by Old Darnley (222), along with Carrie of Glengail, would make a fine pair for show and for breeding. The fourth, a brown, by Harold (2854), completes the list. Take them all in all they are a superior type, with sufficient bone and substance, and bear well the eulogium of the secretary of the Scotch stud book, who pronounced them one of the best and best bred lots ever sent to Canada to one importer.

### The Students at the Ontario Agricultural College.

A very hopeful omen in reference to the attendance of students at the college at the present time is this, that the first year students are nearly all the sons of Canadian farmers. While it is true that other persons should have a right to attend the college as well as farmers' sons, it is equally true that as a rule the latter class will receive the most benefit from attending its lectures. They have had a taste of what Canadian farming is before they came, hence they can enter on a course of study with the firm conviction that it will help them to labor to better advantage at work that they are already familiar with. They know that they are not simply building castles in the air, but rather laying the pillar of their future life-work upon a more solid and a broader foundation. They realize that they can go from the halls of the college to the farm and quit themselves like men, wrenching respect from those who may despise and ridicule their efforts after a deeper insight into the secret of the grandest of all the callings.

That the college has been wounded in the house of its friends by the inefficiency of many who have gone from its walls is mournfully true, although there have been some noble exceptions. This in its early stages was peculiarly unfortunate, for it only confirmed and deepened the groundless prejudices too deeply rooted

in the minds of our farmers as to the value of an agricultural college. This was peculiarly unfortunate in the infant stages of the institution. It has placed it on an up grade, the summit of which will not be reached after the next ten years of faithful working.

Shall we be dismayed at the prospect? Not for a moment. Placing our feet upon the mistakes of the past, and putting on a full head of steam, we shall reach the upland of our efforts, and Canadians, and most of all Canadian farmers, shall be constrained to pay homage to our Agricultural College. In bringing about this change of sentiment our students form the most important factors. Every man of them who leaves the institution should realize that all Ontario is watching him. If only faithful to the precious charge the college gives to him when he leaves her walls: To go abroad into the country and leave his fellows in the race, every one of them will prove as precious seed sown upon virgin soil which cannot fail to bring an abundant harvest.

The horizon of the future of the college is surely breaking bright and clear when her own students so far realize their own position as to write as follows:

"The name and reputation of any college is only kept up or supported by the men it sends out. The question naturally arises, why is it that our college is not better represented? Why is it not filled to overflowing? Can it be that farmers do not see the advantages of a better education in this advanced age? A better education for farmers is now indispensable. The days when might was the only right are gone and in their place we have times which call for intellect and brain-culture. The day has come when Canada expects every man to do his duty. She expects every man to take his place in church and state and to make himself felt in the community in which he resides. We live in times of great change and much improvement. Farmers must learn to be business men as well as farmers; they lack no mental power, but they do lack brain cultivation. This can be overcome in the next generation by fathers educating their sons, and we are proud to say that we have such a place in the Ontario Agricultural College.

"The Ontario Government is sparing no pains in making this place both attractive and instructive, and the staff are equally zealous in their efforts. Every year the facilities for study are being increased, the new student has an advantage over the old one. Look at the improvements for 1886-7. Commodious barns of most modern architecture, and all the machinery necessary for the production of crops and the changing of the same into a palatable form suited to the requirements of the valuable live-stock kept here. The college is equipped with a large reading-room, library containing 4,000 volumes, biological and chemical laboratories also, furnished with modern appliances. The course of lectures is good, and any person taking them, unless of the snail or ape order, cannot fail to be benefitted."

Those words have a fine ring about them. They will surely find a response in the bosom of many a farmer's son thirsting for the realization of a nobler manhood. With such opportunities for improvement furnished at a trifling cost—a hundred young men and more with whom to cross swords in the college itself, and one hundred thousand to beat in the after walks of life, who but must envy the lot of a Canadian farmer's son?

It is true that the number of freshmen is small this year. We care not for that: they are lads from the right quarter. President Mills was right in insisting on a large number of foreign applicants going first to the farm to get a taste of what it meant. Ontario will stand by the President in that action. Three resolute men will do more for a farm than a dozen laggards. So will a score of young men of the right grit do more for the honor of a college than any number of aimless students.

Our appeal now is to the young men, the farmers' sons of Ontario. Blessed with better school privileges

than your fathers, you are in a better position to judge of the value of a higher education. Prevail upon them to allow you to go to the college next year, and to enable them to do so, if need be consent to the sale of your favorite horse, and do without the buggy. It will make a thousand times more a man of you to take a course on agriculture than scouring the country every second or third night when you should be sleeping, in search of some assistance of a beautiful but bewitching nature that will only help you in the meantime to be that most guilty of all young men—a *time waster*. Nay, do not sling the LIVE-STOCK JOURNAL down in fierce anger; this is meant for you. Let the horse go, take the buggy to the first auction sale, off to Guelph next year, and if at the end of your course you find that we have given you bad advice, if you will let us know, we promise you an earnest apology in the presence of all our readers.

### Making the Most of Pure-breds.

Hitherto it has been the almost universal practice to allow the calves of Shorthorns of both sexes to suckle their dams until about six months old, and then to dry the dams, allowing them to remain idle the remaining six months. So long as good prices can be obtained for them this will answer very well, so far as the cash account is concerned, but it is not the best thing for the improvement of the milking properties of the dams. Nay, it is a pretty certain way of impairing them, for it induces a habit which not only becomes fixed in the individual, but which is transmitted to her descendants, going dry at six months after calving. Nor is it conducive to the securing of a large flow of milk, for during the first weeks of the calf's existence it is unable to take all the milk, and the dam is more or less unwilling that any one else shall take it, which has the immediate effect of reducing the milk flow for the remainder of the season. With such a practice going on for many years it is wonderful that Shorthorns have retained their milking properties in any marked degree.

It is therefore with true pleasure that we hail the advent of anything in the line of innovation that will have a tendency to improve and to restore the milking properties of this famous breed, and any person in any country who will give us the results of his experience in this respect, may feel assured of a true welcome in the columns of the JOURNAL.

Mr. J. S. Williams, of Rugby Farm, Knowlton, P. Q., introduced a change last spring into the management of his herd, and the results have been very encouraging. He allowed his Shorthorn calves to suck their dams until eight weeks old, then had them weaned and fed on skimmed milk sweet and warmed, with linseed meal put in. They were fed in addition cut hay, wet and mixed with meal, adapting the quantity to the age of the animal. In this way Mr. Williams has been enabled to raise calves nearly as good at the age of one year, and they will certainly be as good at the age of two years as though they had been allowed to suck the dam the usual term. Mr. Williams gives it as the result of his experience that calves raised in this way take to the pasture better when turned out in spring, and do better during the summer, while by making butter from the dam the remainder of the season, she milks on till within the two months of calving, with the additional profit of thirty to forty dollars a year in butter.

But notice, this butter is not made in a slipshod way. It is made into one quarter pound prints, done up in waxed paper, with the name of the farm stamped thereon, and sent to the Montreal market, where even last spring, when butter was low, it was

contracted for at 30 cts. per lb. A few additional cows are kept, so that each calf gets more than the actual amount of skimmed milk produced by its own dam.

We shall be only too glad to hear from Mr. Williams again in reference to this matter. It is a step in the right direction, and if adopted by numbers of breeders in these times of stringency and low prices for beef, would undoubtedly swell their returns and very much improve the milking properties of their herds.

It would in the end prove calamitous to sell beef-producing herds, and supplant them with dairy herds simply because the prices of beef are low, and dairy products high, for we can no more do without the one than the other; and if all rush into dairying exclusively we are soon wafted to the other extreme—that is, higher prices for beef and lower prices for dairy products. Those who can still continue to produce their handsome, compact, early-maturing steers, and at the same time get a satisfactory return in butter, are, as we see it, sure of a safe and remunerative return.

### Waste of Wood Ashes.

There is no fertilizer of greater value to the farmer than wood ashes, so far as they are forthcoming, unless it be that mainstay, barnyard manure, and the little value that is too often put upon them is very much to be regretted. Oftentimes they are carried out of the house and emptied in heaps upon the ground, a pail or two in each place, and left to bleach in the rains. When applied upon gardens they are usually scattered thickly, and for a time act injuriously rather than otherwise. They are often applied thus foolishly around fruit trees; a few shovelfuls are scattered around the root of the tree instead of spreading them evenly over the land, so that all of it would get about an equal quantity.

Our American friends of New England are much more alive to the value of wood ashes than we are. They import them in large quantities from us, and consider they get good value, when applied at a cost of 25 cts. per bushel. If it pays them to import ashes by the car load and to pay the duty and carriage, it will certainly pay us to apply them without any outlay in this respect.

In view of the rapid and continued deterioration of our lards, we cannot be too careful of our wood ashes. They should be husbanded with a jealous care, and applied for crop purposes at the rate of from 50 to 150 bushels per acre. It is better to apply them usually as a top dressing, at any time when the ground is not frozen, and care should be taken to spread them evenly over the surface. Their effect upon newly seeded grass lands is wonderful, and in the renovation of old pastures they are useful. To gardeners and fruit-growers they are in a manner indispensable.

### Simultaneous Meeting of our Live-Stock Associations,

We have a number of stock-breeders associations in Canada at the present time, but no two of them hold their annual meetings simultaneously. This necessitates a very considerable waste of time on the part of some, and also of expenditure, as in instances not a few the same person is a member of two or three of these associations. By fixing upon some suitable centre and choosing the same week for holding the annual meeting of each of the different associations, all the leading stockmen of Canada would thus be brought together, and each would be enabled to attend the meetings in which he was more particularly interested,

and transact any other business that he might deem proper.

Our American neighbors are an exceedingly practical people, and here we may profitably borrow a leaf from the book of their practice. They hold nearly all their annual live-stock conventions in one week; that is, the week of the fat stock show, and thereby save not only a very large outlay in traveling, but their presence gives encouragement and support to the great live-stock show of the season.

As our readers all know, we have a fat-stock show of our own. Hitherto it has not been well attended, which is not creditable to a country sending abroad 60,000 head of fat cattle every year. It seems to us that this show should be permanently located, and that a strong effort should be made to secure suitable buildings for holding it in, where the visitors would be as comfortable as though in their own homes. If the different associations fixed upon the same week for holding their annual meetings, and the Clydesdale breeders held their show at the same time, it would ensure an attendance from abroad that would go far to render the fat stock show a financial success.

The center to be fixed upon at the present time, and probably for all time, is Toronto. The convergence of our principal railways to that one point furnish an argument that is unanswerable, as there is no other point in the whole Province which is so easily accessible from all parts. Toronto, too, is the largest and best market in the Province, which is of advantage to exhibitors of the fat stock show who may desire to dispose of their produce.

We do not apprehend that there would be any serious objection to the holding of the Clydesdale stallion show at the same time. It may be somewhat early in the season, but it would have this advantage, that buyer and seller would be brought in contact sooner, and so would have ample time for the perfecting of their plans.

Thus, even now, the Clydesdale Association, the Shorthorn Breeders' Association, the Shippers' Association, the Ayrshire and the Holstein breeders, and the Poultry Association, might all meet the same week, and the fat stock, the Clydesdale stallion, and the poultry shows be held at the same time. This could not fail to very materially help each of these exhibitions, while it would afford very many the opportunity of attending them which they otherwise would not have, however desirous they might be of doing so. Other associations will doubtless be formed in due time, and each addition would but tend to swell the volume of attendance, and to increase the interest felt in these exhibitions.

The plan that we would respectfully suggest for bringing about the proposed arrangement is as follows: Let the council of the Agriculture and Arts Association definitely fix upon the time and place of holding their show, but not till after they had held communication with the other associations to ascertain their views. This done, as each association held its annual meeting it could be decided that the annual meeting following would be held during the same week, and at the same place, and that the show in connection would also be held at the same time, and the whole thing is done. The council of the Agricultural and Arts Association would require to take the initiative in the matter, and by so doing they would accomplish a great work for the advancement of the live-stock interest in Canada.

In this way such a gathering of representative live-stock breeders may be convened in Toronto in December, 1888, as Canada never witnessed before. By going to the expense of one journey at least three exhibitions might be taken in, and the same individ-

ual could attend the annual meeting of each association of which he might be a member.

If there is any serious objection to our proposal, will our readers point it out in the next issue? So far as we can see there is no real objection. Those who favor it will doubtless work for the attainment of the end in view. The advantages are so apparent, and the disadvantages so few, that the wonder is that the effort has not been put forth sooner to render it an accomplished fact.

The citizens of Toronto, we are quite sure, will not be indifferent, and we hope they will give the movement more than a negative sympathy. These shows can't be held without the necessary accommodation, and this is always much more effectively secured when the good aldermen and their chief are in hearty sympathy, than when such is not the case. In any event we ask of the stockmen of Canada to render this proposal a realization before twelve months shall come and go.

### Our Scotch Letter.

(From our Aberdeenshire Correspondent.)

THE "BOON" ON SCOTCH SHORTHORNS—LARGE EXPORTATIONS TO CANADA AND THE STATES.

What may be called a new trade has sprung up here within the past month or two. I refer to the importation of 700 head of Canadian bullocks by a company formed of landed proprietors and farmers who are impressed with the advantage to the agricultural interest of getting Canadian cattle imported direct to Aberdeen instead of having to bring them through from Glasgow. Two cargoes have arrived, each comprising 350 cattle, picked up, I was led to understand, principally in western Ontario. The experiment did not start very successfully, for upon the sale of the first lot (shipment) the company lost over £200, owing, it is said, to the cost of freight, which was at the rate of £3 per head. The second cargo, arrived a short time ago, and when sold it was found that they had just saved the company from loss, and nothing more. In this instance, while a saving of 15s. was effected upon freight, the cattle cost about 12s. a head more than the first cargo in Canada. A deal of interest was shown in the sales, which had all the advantage of novelty to assist them. The first cargo made an average of £14 15s. per head, and the second an average of £14 11s. 6d., the former comprising a greater number of animals in forward condition. The quality of the stock was fair. The "tail" was rather larger than farmers in this country like, for while there was a lot of exceeding well bred cattle among them, the proportion of uneven, rough, and bare fleshed beasts was too big, but taken as a whole their like cannot be produced in this country at the price which your farmers seem to be able to sell them at. I may mention that a third cargo has been arranged for, and is expected to be delivered about the beginning or middle of next month. Time alone will tell whether this trade has the element of permanency in it. There are some who think the time is coming when the Canadian farmers will find it more profitable to tap directly the British fat market themselves. There is a capital market in the north-east of Scotland for "store" or "keeper" cattle, but the kind of stock that is wanted is the younger class that would leave a bigger proportion of the profit in the hands of the British farmer. But that, I presume, will not long suit the Canadian farmers, who have facilities for bringing their stock to the "block" more cheaply than any that exists in this country, and it is for this reason that a doubt exists as to the length of time the British agriculturists can depend on Canada for their "stores." With the uncertainty that surrounds the subject many are committing the fatal blunder of giving up the breeding of their own cattle, and in a short time, if things go on as at present home-bred Aberdeenshire cattle, the pride of the country, will be a very small quantity.

But while Canada has been sending us her surplus stock the dealing has been reciprocal, and you have in return got several consignments of pure bred cattle which should help to work an improvement upon the Canadian stocks, as they are the best, I make bold to say, that have ever left our shores for any part of

the world. I refer particularly to the purchase by Mr. John Dryden, M. P. P., Brooklin, Ontario, of the entire herd of Shorthorns, 40 in all, belonging to Mr. Edward Cruickshank, Lethenty, which, for its size, had, I say advisedly, hardly its equal in the north of Scotland. Though founded only about six years ago it had already made its mark in this district in a way that few herds did in a long number of years. The annual draft sales of young bulls from the Lethenty herd, always very successful, put into the hands of local farmers a class of sires which have already become the talk of whole districts where they were introduced, and I speak from personal knowledge when I say that the intimation that Mr. Dryden had secured the whole herd spread a feeling of regret among a wide circle of Mr. Cruickshank's friends throughout the whole country. But on the other hand Mr. Dryden is to be congratulated on his acquisition of one of the most valuable herds which the north of Scotland could boast of. The foundation of the herd was laid through the purchase of several Lord Forth cows at Rettie, near Banff, and to these Mr. Cruickshank added a few heifers from the herd of his uncle at Sittyton; and it was here, too, that he obtained his first stock bull Perfection, a low-standing, magnificently covered roan, which, put to the wealthy Rettie cows, produced the happiest results. The bull Lord Forth, above referred to, was bred at Sittyton, and the cows which he got at Rettie, which Mr. Cruickshank purchased, were remarkably grand in their back and loins. They matched Perfection to a nicety, and on one occasion, being at Lethenty a year or two after the herd was started, I remember to have written of the prospect of the herd in very hopeful terms. Than Mr. Cruickshank himself there is no one in our district better versed in Shorthorn lore, or has a better knowledge of the principles that govern a breeding herd, or of the cattle, and the treatment of the cattle that suit our rather inhospitable climate; and he has shown that he could turn his knowledge to very good practical account, and had Mr. Cruickshank remained at the helm a while longer he would have proved even more distinctly how fit was his management of a breed that has been his pride and study for years. But having resolved to give up farming and live in England, he had to dispose of his herd, and Mr. Dryden being here at the time, had the good fortune to negotiate the sale with him. After Perfection had to retire, Mr. Cruickshank had recourse to the Lord Forth Rettie cows, which, be it noted, were full of Sittyton blood, for his sires, his second bull being Prince Rufus, a son of Perfection, and out of one of the above mentioned females. Taking in his quality and great wealth of flesh after his sire, Prince Rufus was a splendid red bull of great substance and with beautiful quarters, back and loins upon him, though a critic might think him a little heavy in bone. Mr. Cruickshank's good judgment was again proved by the success of Prince Rufus. Owing to the result of an accident the bull went prematurely, from being serviceable, but a lot of the young things which Mr. Dryden has purchased are exceedingly promising, and are a standing proof of the merits of this grand sire. He was succeeded by another of Perfection's sons, out of Pelonia by Lord Forth. This is Patriot, a shapely red bull with extra hind quarters, grand top line, and which stands upon beautifully formed legs; and he has been bought by Mr. Dryden along with the rest of the herd, which comprises 17 cows, 8 yearling heifers, 5 heifer calves and 10 bulls. The cows include Harmony, the dam of Red Emperor, a famous prizetaker in the United States. A very pretty red heifer calf by Prince Rufus, out of this cow, will be an object of interest. It has beautiful quality and style, with very pretty fore-end. Brambleberry, a three-year old red and white, by Perfection, is a very valuable breeding cow, true in shape, full of quality, and beautifully fleshed. She is the dam of a one-year-old red heifer that will make her mark, and her own dam, still in the herd, is a rare breeding, heavy milking ten-year-old. But the fact is, I might go over all the cows and enumerate them in the same way, which is not necessary, enough being said to show the quality of the stock Mr. Dryden has bought. I will simply mention the bull calves out of Primrose, Lady Marjorie and Northern Belle, and the Victoria and Roseberry heifer calves, as being something uncommonly grand and calculated, together with the rest of the herd, to enhance the popularity of Aberdeenshire Shorthorns in the Dominion. Mr. Cruickshank's has, to put it shortly, been distinguished above many herds of the present time by their splendid quality and thick-

ness of flesh, which was an inherited characteristic which made them the truly splendid race they were. Scotland will be so much the poorer that they have gone, but the gain to Canada will be great.

The great success of the Kinellar Shorthorns at the Toronto exhibition, an account of which was given in the CANADIAN LIVE STOCK AND FARM JOURNAL, was an interesting piece of news to many in the Old Country. No one is more deserving of a turn of luck than Mr. Campbell, who is one of our oldest breeders who in prosperity and adversity has ever stuck true to his favorite "red, white and roans." And he owns a fine old herd, which, at the time of my visit to Kinellar about a week ago, was in capital breeding condition, with a very fine red Sittyton sire named Gravesend at its head. Mr. Campbell was one of the purchasers at the Urie dispersion, to which reference was made some time ago in your columns. A good many of his Shorthorns, as do a big proportion of those in other herds in the north of Scotland, trace from this and kindred sources, though he did not confine himself entirely to Scotch blood. Some of his best bulls, however, have been of Sittyton breeding, Scarlet Velvet and Garioch Boy, two notable prize-winners, having both been bred, if I am not mistaken, by Mr. Cruickshank. A feature of Mr. Campbell's management is the entire absence of coddling: the cattle are brought up under conditions which some might think too severe, but they are of good robust cattle, and can without fear of the results be taken to any sort of climate. It is thus that they have proved this superiority in Canada. A large draft has just been despatched, per the "Carthaginian," on which ship Mr. Dryden's purchases went, to various breeders in your country. Mr. Arthur Johnston, Greenwood, gets 8 bull calves and 3 heifer calves, and a caputally haired, well ribbed, thick lot they are. Mention may be made of a pair of red bull calves tracing to the old Urie herd, a stylish roan, with good under line, out of Maid of Promise, whose stock was in the prize list at Toronto; a fine fleshed roan, out of a cow named Bessie and a good quartered red from the Coldcream tribe, which were noted in Mr. Fisher's herd, all of which are worth speculating on. Along with Mr. Johnston's consignment went 7 bulls and 12 heifers to Messrs. Isaac and Russell, Richmond Hill. The bull calves are principally reds, and thick, short-legged sorts, and those of the Rosebud, Bessie, Jessamine and Mary strains are particularly good, with several probable winners among them. The Miss Ramsden and Mina heifer calves are perfect models, but besides these are a number of thrifty looking females, representing Mr. Campbell's best females. The consignment also includes an exceptionally strong ribbed two year-old roan heifer that was first as a yearling at the Highland Society's Show, Royal Princess, bred by Mr. Englis Newmore. It will be remembered that Mr. Redmond, Peterboro, Ont., bought four heifers at the Burnside dispersion in the autumn of 1886. Owing to the restrictions this lot of animals—several of which are very typical Shorthorns—could not be got out, but they were despatched last week with Mr. Campbell's, and at the same time to Mr. Russell, Unionville, were sent several well bred Clydesdale horses from Mr. Campbell, jr.

Corresponding in importance with these Canadian purchases is a transaction of a similar kind, in which Mr. Luther Adams (Boston), Storm Lake, Ia., is the principal mover on your side of the Atlantic. There is a race between Canada and the United States for the possession of the best specimens of the hardy, thrifty, robust, beef excelling Scotch Shorthorns that find a home in the county from which I write, and whose head quarters I may say without offence are at Sittyton. For after all, this is the great centre from which, at the present time, our best local herds are mainly sprung, and from which have emanated that new type of an animal which has compelled admiration even from those who were least inclined to admit his merit—the Cruickshank Shorthorn. Mr. Adams' manager, Mr. William Miller, has been here and purchased 40 head of Shorthorns from Mr. Amos Cruickshank, Sittyton, and a large draft from Mr. Wm. Duthie, Collynie, and Mr. W. S. Marr, Uppermill, which in the aggregate will form one of the best lots that have ever gone from this part of the country to the United States. Visiting Sittyton recently I had an opportunity of inspecting the herd, and at the same time saw Mr. Adams' purchases. They consist of one cow and 17 heifer calves and 22 bulls, and are all in all one of the most valuable lots that have ever left Sittyton. The occasion does not now present itself for giving any-

thing like a description of what one can see at Sittyton. The present owner and real founder of the herd as it now exists, Mr. Amos Cruikshank, is verging on his 80th year, but I found him hale and hearty, and as ready to face a blustering and stormy day as much younger men. It is the universal wish of every one who is interested in the breeding of cattle that he may yet be spared for a good many years to preside over the destinies of Sittyton and its belongings, and that the time is not near when the herd, with all the associations and memories which cluster round it, will have to be broken up, but if the steersman through the weight of increasing years should have to resign his post, may someone be found to step into his place and carry forward the great work to which he has for so long a period—half a century—devoted himself with rare tact, judgment and perseverance. A few of the choicest of Mr. Adams' purchases may briefly be noted, prefaced by the remark that Sittyton herd was never seen to more advantage than now. At the head of the stock bulls is Cumberland (46144), a grand-son of the famous Champion of England, and just the type of bull one would expect to find there, with a deep, massive frame on grand short legs; great strength of back and loin, and faultless in his cover. A brother of his rising two years old, out of Custard, and by Baron Violet, a great favorite with Mr. Cruikshank, is expected to do good service in the herd, and if appearances go for anything, he is not likely to disappoint his owner. On entering the byres in which the bull calves are housed, the fine mossy, abundant flowing coats of the youngsters at once caught my eye, and showed their admirable beefing qualities, which further improved on closer inspection. Standing very near the ground, as he does, you almost miss the true proportion of the Sittyton Shorthorn, but he grows upon you, and that was my experience on the present occasion. They are thick, closely made cattle, but you find them not only true made sorts, but excelling in flesh and quality. I shall only notice a few. In the first byre a red bull calf, with a little white, out of a Victoria cow, and got by Feudal Chief, at once claimed attention. Excelling in coat, cover and quality, he carries a grand back upon him, and has the making in him of a first-class sire; but an almost still more typical Sittyton Shorthorn was a red bull calf, out of Golden Autumn, and by that grand old sire Cumberland, a grand fleshed, thick, deep carcassed bull, on beautifully short legs, and a first favorite of mine. Among the more notable of a notable draft of bull calves, I might just specify a red, out of Victoria 77th, by Gondolier; a roan, out of Germanica, by Feudal Chief; a roan, out of Costume, by Feudal Chief; a red, out of Lavender 27th, by Gondolier—a remarkably straight calf, with beautiful loins and character—and a red, out of Surname, by Cumberland, which are good examples of the others. At a long figure Mr. Adams gets along with these calves a five-year-old roan cow named Germanica, which will take a sharp critic to find a fault in her, she is so straight in her top and low lines, well filled up behind the shoulder and even in her flesh all over. Perhaps she is the best show-yard type of a cow in all Mr. Cruikshank's herd. She will likely be heard of before long. The heifer calves were a superior lot, with fine, rich coats, arching ribs and short legs. The Arabella, Sycamore, Barmpton Sprays, Lady of the Forest heifer calves, were in my opinion exceptionally promising. Mr. Adams has also bought from Mr. Cruikshank three well bred stallion foals by The McCamon.

The autumn sales of pure bred stock have been thoroughly disappointing. Messrs. McCombie, of Easter Skene; Mr. Wilken, Waterside; Mr. Hamilton, Skene, and Mr. J. A. Duff, Hatton, held a combined sale of Polled cattle, which ought to have elicited spirited competition, but didn't. The average was only £22 11s. 11d. for 64 animals. They were the best draft lot I have ever seen exposed at Aberdeen. The average for the different lots was as follows: Easter Skene, 12 at £25 6s. 7d.; Waterside, 29 at £23 6s. 8d.; Skene, 9 at £20 15s. 5d., and Hatton, 14 at £19 18s. 3d. Mr. Wilken made the highest individual price, namely, 71 gs., which he realized for a two-year-old heifer, Pride of Aberdeen 42d. Generally Polled breeders are overstocked at present, and this fact I daresay has had a depressing effect upon these sales.

October 31, 1887.

QUIDAM.

"The JOURNAL is a monthly relief in our individual troubles."  
—R. C. Brandon Cannington, Ont.

### Curing Pork for Home Use.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

At your request I send you a few directions, which, if followed intelligently, will enable farmers to cure bacon and hams for their own use, so that they will keep through the summer without being so fiery salt as to be very unwholesome, as well as unpleasant to the palate.

First see that hogs to be killed are fasted 24 hours; 2d, kill them when the temperature is at about freezing point, and on no account let them be frozen through; a temperature of 32° or 34°, if hung in the open air, is infinitely preferable to a much lower one. 3d, be sure they hang till they are thoroughly set—24 hours in the open air, at temperature named, is ample. A satisfactory cure can not be effected if hung in a low temperature for a short time, as the outside will be frozen, while at the centre the animal heat will not have escaped. 4th, the carcase may now be cut up to suit the fancy of the owner; I think the fewer pieces the better, and would recommend that it be cut into sides and hams only. These joints may now be placed on a clean cellar floor, or on planks on floor, or on boxes, as preferred; some salt sprinkled on floor or planks on which the bacon or hams should lie; the fleshy part should now have a little saltpetre sprinkled over it, say 4 to 6 ounces per hog of 200 lbs., following with a moderate amount of Liverpool salt.

This salting process (no more saltpetre) may be repeated in about ten days. The sides and hams may be neatly piled on each other, as the pressure helps to effect a cure and to exclude air. It should remain in salt from one month to six weeks, according to the size of the hogs and thickness of the meat, after which the salt should be thoroughly brushed off, and the sides and hams hung up in the kitchen near enough the stove to get a dry skin on quickly, but not to melt the fat. This dry skin having been obtained, they should be moved further from the stove, till they are thoroughly dry. This last is very important. Without it it will turn slimy, and not keep in condition a month, but if dry as a chip, it can be kept twelve months. Of course, it will have to be protected from flies and kept in a cool but dry place. These instructions strictly followed will make bacon and hams to suit the taste of an epicure.

And now, Mr. Editor, having pen in hand, I protest against the practice so prevalent amongst farmers and their families, and work people, living almost entirely on fried bacon and potatoes. On the tables of a very large proportion you will not find any vegetables but potatoes, though green vegetables of every kind can be grown in Canada most abundantly, and are in the highest degree conducive to health. Is it any wonder that farmers and their families are dyspeptic, and that the doctors find amongst them so many good customers? The evil is intensified by the excessive saltiness before referred to, accompanied by the rancidity of the fat. Hoping the above will be useful to some receptive and inquiring minds.

Yours truly,

WM. DAVIES.

Toronto, Nov. 11, 1887.

### Farming in Manitoba.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—From a letter published in your JOURNAL of this month, it would appear that in my note published in the August number, I unwittingly trode on my neighbor, G. E. Walker's pet corn, or else why this outburst and gross exaggeration, in order to throw discredit on my statements. I regret I cannot alter my experience in any way. The statements are copied from my diaries noted at the time of occurrence, and not merely from memory.

With regard to the Assiniboine, it would be difficult to find a place near here where the tops of the banks are fifty yards apart, and numbers of men and boys have crossed this summer, wading, with most of their clothes on, and water was as high as last year any way.

The tale of my wanting to buy a scrub cow is mere fiction. Does our friend know what a scrub is? Let him subscribe to the JOURNAL for a year. I see he talks of "thoroughbred grades." He says my reason for writing thus is that I am dissatisfied. Now he has told me himself that he has to stay here, *volens volens*. Perhaps that accounts for things doing so much better on the next section to mine. Then, of course, I forget, he says he does things properly.

As to cold occasionally, will he kindly tell us the reason that he lost (died) all his calves (4 or 5), some pigs and several fowls in the severest time of last winter? Was it, perhaps, from stopping in-doors, because it was too cold to go out to feed them? Most of us got through without any loss, but then we had to give considerable care and food, most especially in the time when some like to keep the stove warm.

That my letter was never intended to include all Manitoba, but was to give my experience and to save others falling into any mistakes I may have made, I think any one with any pretention to intellect would see at a glance. If a few other settlers would give their unbiased experiences of the first few years, I think it would save much disappointment to future immigrants who, like myself, have only the government pamphlets to judge from.

As I keep a record of the thermometer taken once or twice a day all the year, I can give you last winter's temperature, if you would care to publish it.

GEO. A. DAVENPORT.

Mabledon, Binscarth, Man.

### Was the Decision a Just One?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Being one of the judges on heavy horses at the Howard Branch Agricultural Society's fair, I take the liberty of asking your opinion on the following decision in the draught team class. There were two entries, one a span of aged mares and the other a mare and a two-year-old mare colt from the mare aforesaid. We gave the prize to the mare and colt, which very much dissatisfied the owner of the other team, and caused a good deal of comment among the spectators. I might say that the colt was well matured and a perfect mate to the dam, and they probably are as fine a specimen of a draught team as can be found in the west. The other is a good team, although one is slightly unsound. The objection raised was, that a two-year old colt was not a horse, and therefore we should not have considered them a team.

The class in the prize list read, for the best span of draught horses, geldings, or mares in harness. There was no difference of opinion among the three judges at the time, and I do not think there is yet, at least not as far as I am concerned. The question is, did we do right in giving the prize to the mare and colt? I am quite satisfied to leave the matter to you; and if I have been a party in doing wrong, will be only too happy to make any reparation in my power.

By kindly giving your opinion in the next number of the JOURNAL you will oblige. You are at liberty to publish this if you wish, as probably some other parties would like to give their opinion, which I would be glad to get. Wishing the JOURNAL every success,  
Dawn Mills, Ont. FRANCIS GIFFARD.

We think the above decision a just one, providing the mare and her colt were intrinsically the best individually and best matched team. The question was not one of age, but one of merit.—ED.

### Prize List of Sherbrooke Exhibition.

THOROUGHBRED HORSES.

Stallion—Diploma, Beaconsfield Stables, Sherbrooke.

Gelding, 4 years old—Beaconsfield Stables.

Brood mare and foal—Beaconsfield Stables.

Foal of 1887—Beaconsfield Stables.

Female, any age—Diploma, Beaconsfield Stables.

Filly, 2 years old—Beaconsfield Stables.

ROADSTERS

Stallion—1st, N. T. Dussault, Sherbrooke; 2d, John Shuter, Lennoxville; 3d, Henry Tomkins, Beab Plains.

Stallion, 3 years old—N. T. Dussault,  
Stallion, 2 years old—1st, H. E. Taylor, Sawyer-ville; 2d, S. H. Downton, Massawippi; 3d, E. N. Stacy, Summerville.

Stallion, 1 year old—1st, James Owens, Johnville; 2d, N. T. Dussault; 3d, J. M. Shuter, Summerville.

Stallion, any age—Diploma, N. T. Dussault.  
Filly or gelding, 3 years old—1st, W. McCarthy, Compton; 2d, Hy. Tomkins; 3d, J. McCarthy, Compton.

Filly or gelding, 2 years old—Chas. McDougall, Sherbrooke; 2d, G. W. Fuller, Capelton; 3d, M. L. Connolly, Lennoxville.



Filly or gelding, 1 year old—1st, Alex. Parks, Sherbrooke; 2d, N. T. Dussault; 3d, J. A. Dufort, Compton.

Brood mare and foal—1st, Walter Thompson, Sherbrooke; 2d, B. R. Labaree, Bulwer; 3d, P. McMahon, Brampton.

Foal of 1887—1st, Walter Thompson; 2d, John Wilson, Lennoxville.

Female, any age—Diploma, J. A. Dufort.  
Matched pair—1st, S. L. Clough, Lennoxville; 2d, F. A. Noble, Stornaway.

Single horse—1st, J. N. Jenks, Barnston; 2d, N. T. Dussault; 3d, R. H. Pope, Cookshire.

#### GENERAL PURPOSE.

Stallion—1st, J. H. Ives, Stanstead Plain; 2d, S. J. Pomroy, Compton; 3d, Albert Rolfe, Dudswell Centre.

Stallion, 3 years old—1st, P. Murphy, South Durham; 2d, J. N. Jenks, Barnston.

Stallion, 2 years old—M. Harrison, Lennoxville.  
Stallion, 1 year old—1st, W. H. Ward, Windsor Mills; 2d, Geo. Nutbrown, Birchton; 3d, W. Dunain, Huntingville.

Stallion, any age—Diploma, J. H. Ives.  
Filly or gelding, 3 years old—1st, R. H. Pope, Cookshire; 2d, S. J. Pomroy, Compton; 3d, M. Read, Sherbrooke.

Filly or gelding, 2 years old—1st, A. A. Bailey, Cookshire; 2d, A. P. Farwell, Compton; 3d, A. M. Tylee, Lennoxville.

Filly or Gelding, 1 year old—1st, A. P. Farwell; 2d, S. J. Pomroy; 3d, S. Smiley, Sand Hill.  
Brood mare and foal—1st, Jas. Cillas, Sherbrooke; 2d, Jos. Smith, Ulverton; 3d, Alton Hodge, Eaton.  
Foal of 1887—1st, Jos. Smith; 2d, A. P. Farwell.  
Female, any age—Diploma, C. C. Cleveland, Danville.

Matched Pair—1st, Hy. Tomkins, Beebe Plains; 2d, L. W. & J. L. Knowlton, Newport, Vt.; 3d, R. N. Frank, Kingsbury.

Single horse—1st, C. C. Cleveland, Danville; 2d, A. P. Hurd, Massawippi; 3d, J. Colby & Son, Lennoxville.

#### HEAVY DRAUGHT.

Stallion, 4 years and upwards—1st, Boa Bros., St. Laurent; 2d, N. H. Dubois, Acton Vale; 3d, John Shuter, Lennoxville.

Stallion, 3 years old—1st, Boa Bros.; 2d, J. G. Brevoort, Fitch Bay.

Stallion, any age—Diploma, Boa Bros.  
Filly or gelding, 3 years old—M. Read, Sherbrooke.  
Filly or gelding, 2 years old—J. F. Learned, Cookshire.

Brood mare and foal—Boa Bros.  
Foal of 1887—Boa Bros.  
Foal and 2 colts—Diploma, Boa Bros.  
Matched pair—1st, R. H. Pope, Cookshire; 2d, Boa Bros.

#### PUREBRED HEAVY DRAUGHT.

Stallion, 4 years and upwards—1st, Robt. Ness, sr., Howick; 2d, Robt. Ness, sr.

Stallion, 3 years old—1st, Robt. Ness, jr., Howick; 2d, C. H. Crossen, Hillhurst.

Stallion, 2 years old—1st, Robt. Ness, jr.; 2d, Robt. Ness, sr.; 3d, N. T. Dussault, Sherbrooke.

Stallion, 1 year old—Robt. Ness, jr.

Stallion, any age—Diploma, Robt. Ness, jr.

Filly, 3 years old—Hugh Patton, Montreal.  
Filly, 2 years old—Robt. Ness, jr.  
Filly, 1 year old—Robt. Ness, jr.  
Percheron stallion—W. S. Pomroy, Compton.

#### HUNTERS.

Saddle horse—1st, R. H. Pope, Cookshire; 2d, Beaconsfield Stables, Sherbrooke.

Pony in harness—R. H. Pope.  
Cob, in harness—J. E. Taylor, Sawyerville.

Sweepstakes classes 1, 2 and 3—Silver medal, J. H. Ives, Stanstead.

Sweepstakes classes 5 and 6—Silver medal, Robt. Ness, jr., Howick.

#### THOROUGHBRED CATTLE.

##### DURHAMS

Bull, 3 years old and upwards—1st, J. Williams, Knowlton; 2d, Peter Young, Gould; 3d, S. Lake & Son, Eaton.

Bull, 2 years old—1st, B. R. Labaree, Bulwer; 2d, John Wilson, Richmond.

Bull, 1 year old—1st, W. S. Ward, Birchton; 2d, H. Davidson, Libby Town; 3d, J. F. Learned, Cookshire.

Bull of 1887—1st, P. Gallup, West Melbourne; 2d, B. R. Labaree; 3d, J. F. Learned.

Bull, any age—Diploma, J. S. Williams.

Cow of 1883—1st, J. F. Learned; 2d, B. R. Labaree; 3d, J. S. Williams.

Cow of 1884—1st, J. S. Williams; 2d, Peter Young.

Cow of 1885—1st, J. W. Taylor, Cookshire; 2d, J. S. Williams; 3d, John Main, West Melbourne.

Heifer of 1886—1st, J. S. Williams; 2d, J. P. Gallup; 3d, Peter Young.

Heifer of 1887—1st, B. R. Labaree; 2d, Peter Young; 3d, H. T. Newell, Melbourne.

Best female—Diploma, J. S. Williams.  
Herd—Diploma, J. S. Williams.

#### HEREFORDS

Bull of 1884—1st, J. W. M. Vernon, Waterville; 2d, R. H. Pope, Cookshire; 3d, S. A. Hyatt, Moe's River.

Bull of 1885—G. E. Campbell, Windsor Mills.

Bull of 1886—1st, J. W. M. Vernon, Waterville; 2d, R. H. Pope; 3d, M. H. Cochrane, Hillhurst.

Bull of 1887—1st, R. H. Pope; 2d, J. W. M. Vernon; 3d, M. H. Cochrane.

Bull, any age—Diploma, J. W. M. Vernon.

Cow of 1883—1st, M. H. Cochrane; 2d, J. W. M. Vernon; 3d, R. H. Pope.

Cow of 1884—1st, J. W. M. Vernon; 2d, M. H. Cochrane; 3d, R. H. Pope.

Cow of 1885—1st, J. W. M. Vernon; 2d, R. H. Pope; 3d, M. H. Cochrane.

Cow of 1886—1st, M. H. Cochrane; 2d, J. W. M. Vernon; 3d, R. H. Pope.

Cow of 1887—J. W. M. Vernon.  
Best female—Diploma, J. W. M. Vernon.  
Herd—Diploma, J. W. M. Vernon.

#### ABERDEEN ANGUS.

Bull of 1884—R. H. Pope, Cookshire.

Bull of 1885—1st, Wm. M. G. Pierce, Stanstead; 2d, J. F. Learned, Cookshire; 3d, J. W. Taylor, Cookshire.

Bull of 1886—1st, M. H. Cochrane, Hillhurst; 2d, R. H. Pope.

Bull of 1887—R. H. Pope.

Bull, any age—Diploma, M. H. Cochrane.

Cow of 1883—1st, R. H. Pope; 2d, M. H. Cochrane.

Cow of 1884—1st, M. H. Cochrane; 2d, R. H. Pope.

Cow of 1885—1st, M. H. Cochrane; 2d, R. H. Pope; 3d, Wm. G. Pierce.

Heifer of 1886—1st, M. H. Cochrane; 2d, R. H. Pope.

Heifer of 1887—1st, R. H. Pope; 2d, M. H. Cochrane.  
Best female—Diploma, M. H. Cochrane.  
Herd—Diploma, M. H. Cochrane.

#### AYRSHIRES.

Bull of 1884—1st, Thos. Irving, Montreal; 2d, J. Beckett, Sherbrooke.

Bull of 1885—Thos. Irving.

Bull of 1886—1st, Jas Lyster, Sherbrooke; 2d, Thos. Irving.

Bull of 1887—1st, Thos. Irving; 2d, W. A. Hale, Sherbrooke.

Bull, any age—Diploma, Thos. Irving.

Cow of 1883—1st, Thos. Irving; 2d, W. A. Hale; 3d, Jas. Lyster.

Cow of 1884—Thos. Irving.

Heifer of 1885—Thos. Irving.

Heifer of 1886—Thos. Irving.

Heifer of 1887—Thos. Irving.  
Best female—Diploma, Thos. Irving.  
Herd—Diploma, Thos. Irving.

#### JERSEYS.

Bull of 1884—1st, M. H. Cochrane, Hillhurst; 2d, A. M. Tylee, Lennoxville.

Bull of 1886—1st, M. H. Cochrane; 2d, S. J. Pomroy, Compton.

Bull of 1887—1st, A. M. Tylee; 2d, P. H. Tossile, Stanstead.

Bull, any age—Diploma, M. H. Cochrane.

Cow of 1883—1st, M. H. Cochrane; 2d, Geo. A. Pierce, Stanstead.

Cow of 1884—M. H. Cochrane.  
Heifer of 1885—M. H. Cochrane.

Heifer of 1886—M. H. Cochrane.  
Heifer of 1887—Geo. A. Pierce.  
Best female—Diploma, M. H. Cochrane.  
Herd—Diploma, M. H. Cochrane.

#### HOLSTEINS.

Bull of 1884—Geo. A. Pierce, Stanstead.

Bull of 1886—Geo. A. Pierce.

Bull of 1887—Geo. A. Pierce.

Bull, any age—Diploma, Geo. A. Pierce.

Cow of 1883—Geo. A. Pierce.

Cow of 1884—Geo. A. Pierce.

Heifer of 1885—Geo. A. Pierce.

Heifer of 1886—Geo. A. Pierce.

Best female—Diploma, Geo. A. Pierce.  
Herd—Diploma, Geo. A. Pierce

#### SHEEP.

##### LEICESTERS.

Ram—1st, B. C. Howard, Beebe Plains; 2d, G. McCurdy, Lennoxville.

Shearling ram—1st, Robt. Allen, West Melbourne; 2d, B. C. Howard.

Ram lamb—1st, Robt. Allen; 2d, Geo. Tree, Ulverton.

Two ewes, 2 shears—1st, G. McCurdy; 2d, W. H. & C. H. McNish, Lyn, Ont.

Two shearling ewes—1st, Robt. Allen; 2d, G. McCurdy.

Two ewe lambs—1st, Geo. Tree; 2d, G. McCurdy.  
Pen—Diploma, G. McCurdy.

##### OXFORD AND HAMPSHIRE DOWNS.

Ram—1st, Jas. Neilson, Lyn, Ont.; 2d, G. W. Fuller, Capelton.

Shearling ram—Jas. Neilson.

Ram lamb—1st, Jas. Neilson; 2d, G. W. Fuller.

Two ewes, 2 shears—1st, Jas. Neilson; 2d, G. W. Fuller.

Two shearling ewes—1st, Jas. Neilson; 2d, G. W. Fuller.

Two ewe lambs—1st, Jas. Neilson; 2d, G. W. Fuller.  
Pen—Diploma, Jas. Neilson.

##### SHROPSHIRE.

Ram—1st, W. H. & C. H. McNish, Lyn, Ont.; 2d, Robt. Harpe, Lennoxville.

Shearling ram—1st, W. H. & C. H. McNish; 2d, G. W. Fuller.

Ram lamb—1st, W. H. & C. H. McNish; 2d, G. W. Fuller.

Two ewes, 2 shears—1st, G. W. Fuller; 2d, S. J. Pomroy, Compton.

Two shearling ewes—1st, W. H. & C. H. McNish; 2d, G. W. Fuller.

Two ewe lambs—1st, S. J. Pomroy; 2d, W. H. & C. H. McNish.

Pen—Diploma, G. W. Fuller.

##### SOUTHDOWNS.

Ram—W. H. & C. H. McNish, Lyn, Ont.

Shearling ram—1st, W. H. & C. H. McNish; 2d, Peter Young, Stanstead.

Ram lamb—W. H. & C. H. McNish.

Two ewes, 2 shears—W. H. & C. H. McNish.

Two shearling ewes—W. H. & C. H. McNish.

Two ewe lambs—W. H. & C. H. McNish.

#### PIGS.

##### BERKSHIRES.

Boar—1st, J. S. Williams, Knowlton; 2d, W. H. & C. H. McNish, Lyn, Ont.

Boar, 1 year old—W. H. & C. H. McNish.

Boar, under 6 months—1st, W. H. & C. H. McNish.

Boar, over 6 months—1st, J. S. Williams; 2d, W. H. & C. H. McNish.

Nish; 2d, J. S. Williams.

Boar, any age—Diploma, W. H. & C. H. McNish.

Sow, 2 years old—W. H. & C. H. McNish.

Sow, 1 year and under 2—W. H. & C. H. McNish; 2d, J. S. Williams.

Sow, over 6 months—1st, W. H. & C. H. McNish; 2d, J. S. Williams.

Sow, under 6 months—W. H. & C. H. McNish; 2d, J. S. Williams.  
Herd—Diploma, W. H. & C. H. McNish.

##### SUFFOLKS.

Boar, 2 years and over—Jos. Rathbone, Stanstead

Boar, over 6 months—1st, A. Tozer, Quebec; 2d, Jos. Rathbone.

Sow, over 6 months—A. Tozer.

#### POLAND CHINAS.

Boar—1st, R. H. Tylec, Lennoxville; 2d, L. R. Whitman, Knowlton.

Boar, 1 year old—L. R. Whitman.

Boar, over 6 months—L. R. Whitman.

Boar, under 6 months—1st, R. H. Tylec; 2d, L. R. Whitman.

Boar, any age—L. R. Whitman.

Sow, 2 years old—1st, L. R. Whitman; 2d, R. H. Tylec.

Sow, 1 year old—L. R. Whitman; 2d, R. H. Tylec.

Sow, over 6 months—1st, R. H. Tylec; 2d, L. R. Whitman.

Sow, under 6 months—1st, R. H. Tylec; 2d, L. R. Whitman.

Herd—Diploma, L. R. Whitman.

#### YORKS AND CHESTER WHITES.

Boar—J. A. Camirand, Sherbrooke; 2d, W. J. Tozer, Quebec.

Boar, 1 year old—J. H. Kezar, Massawippi.

Sow, 2 years old—1st, W. A. Tozer; 2d, A. Colby & Son, Lennoxville.

Sow, 1 year old—J. A. Camirand.

Sow, 6 months—J. A. Camirand.

Herd—Diploma, J. A. Camirand.

### Red Polled Cattle.

From a pamphlet written by Mr. Henry F. Euren in 1883, and at that time editor of the Red Polled Herd Book, we have gleaned much of the material used in this paper.

The present Red Polled cattle have been formed by a blending of the not very dissimilar breeds of cattle kept for generations in the counties of Norfolk and Suffolk, England. The old Norfolks were a deep rich red in color, but had mottled faces, reminding one somewhat of the Hereford markings. The two varieties were amalgamated by crossing about the year 1846, and since that time the rich blood red has been recognized as a mark of excellence.

#### THE STANDARD

description of Red Polled cattle was agreed upon by the breeders in the autumn of 1873. It reads as follows:

#### ESSENTIALS.

**Color**—Red. The tip of the tail and udder may be white. The extension of the white of the udder a few inches along the inside of the flank, or a small white spot or mark on the under part of the belly by the milk veins, shall not be held to disqualify an animal whose sire and dam form part of an established herd of the breed, or answer all other essentials of the "standard description."

**Form**—There should be no horns, slugs, or abortive horns.

#### POINTS OF A SUPERIOR ANIMAL.

**Color**—A deep red with udder of the same color, but the tip of the tail may be white; nose not dark or cloudy.

**Form**—A neat head and throat, a full eye, and a tuft or crest of hair should hang over the forehead. The frontal bones should begin to contract a little above the eye, and should terminate in a comparatively narrow prominence at the summit of the head.

It was agreed upon by the breeders in the autumn of 1873 to establish a herd book, and the work was relegated to Mr. Henry F. Euren, who, by the adoption of a distinctive mode of tribal grouping, has rendered the work of the greatest value to intelligent breeders of the Red Polled cattle. The issue of the first volume took place in 1874, and its completion in 1879.

This "foundation volume" contains a history of

the breed, detailed notices of the foundation cow of each tribe, and the pedigrees of 446 bulls and 1,300 cows.

#### WEIGHT.

At the close of the last century both Marshall and Young speak of this as seldom exceeding when fattened, fifty stone of 14 lbs. They have greatly increased in average weight since then, without any sacrifice in the quality of the flesh. The butchers purchase them readily, as they kill well, and the quality of the meat is said to be equal to that of the Aberdeen-Angus or the Kyloe. Three-year-old steers at the Smithfield show have weighed from 1,900 to 2,000 lbs.

#### DAIRY QUALITIES.

Both the Norfolk and Suffolk Polls have long been employed in the dairy. They are not so much noted for being large as persistent milkers, and the quality of their milk is of a high order. Being easily kept, they make a desirable hutter dairy cow.

#### DIFFUSION OF THE BREED.

For a long time it only occupied a portion of the counties of Norfolk and Suffolk, but is now found in several of the outlying counties, and several herds have been established in the United States. The number of breeders having registered cattle in 1883 was one hundred and five.

Notwithstanding that the Red Polls possess so many desirable qualities there are but few of them in this country. We have ample room for all the useful breeds in the Dominion. Who will be foremost in the work of establishing them in each of our Provinces?

### The Hamilton Market Place.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I venture, through the columns of your valuable paper to draw the attention of the Hamilton public to what I consider a foul blot on the otherwise fair and flourishing condition of their city. I refer to the present state of the market place, which is a perfect disgrace to a place of the size and importance of Hamilton.

When one considers that the market fees collected by the city amount to considerably over \$5,000 per annum (the exact sum paid this year being \$5,560, I believe), and that within the last thirty years they have collected over \$150,000, mainly from the farmers, one would at least expect the ground on which the farmers and their vehicles have to stand, would be tolerably level, and the sidewalks in fair condition, whereas in many portions of the market-place the exact contrary is the case, the ground being full of holes with innumerable loose stones lying about, and the sidewalks being rotten and also full of holes to trap the unwary. This is bad enough in dry weather, but beggars description in wet. They have, it is true, recently put up a fine building in the centre of the market-place. For the farmers, of course, you say? Not a bit of it; for store-keepers and huxters!

The farmer, who is the true backbone and mainstay of the market, is treated with utter contempt, and allowed to stand out in all weathers, exposed to heat and cold, rain and snow, sun and wind; and for this inestimable privilege he pays 10 or 15 cents per day, according to the number of horses he has in his market wagon.

Now I should like to know where all this \$150,000 has gone to, that the city cannot even afford to have the ground on which the farmers stand in decent condition.

Another matter which also demands attention. I hear numerous and grievous complaints of the way the present system of market inspection is carried out, and I must say, that I fail to understand why the market committee of the town council—strange to say there is such a body, though one would never imagine it, to judge from the state of the market place—do not either appoint a more capable inspector or else appoint some one to inspect the market inspector.

Truly farmers are a long-suffering race; but even the worm turns at last, often as it has been trodden

upon; and if nothing is done to remedy the present disgraceful state of affairs, I should not be surprised to hear that the local farmers had combined to prevent produce of any kind going into the city for several weeks, or even longer, a thing which could easily be done with proper organization. After that probably the farmers would at all events have a decent footing on the market-place.

F. G. H. PATTISON.

North Grimsby, Nov. 16, 1887.

The remarks of our correspondent are certainly in the right direction, and it is all the more matter of regret that they are applicable to other market places than those of our own city. Farmers must realize that the mere recital of their grievances to one another will never bring a remedy. They must make themselves heard in some other way.—ED.

### Sheep Kept Long on the Same Farm.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Some time ago I noticed in the JOURNAL a writer having said that sheep would not thrive on the same farm many years in succession, and that of necessity they must be changed. It is now 23 years since I brought the first sheep into this place, and I have not purchased any since. They have improved and are improving still. They are Leicester grades.

AN EARLY SETTLER.

Paisley, Ont.

### As Others See Us:

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—We must say that your paper is a very welcome visitor in our house. We don't see how we could well manage to get along without it. It seems strange to us that the farmers are so blind to their own interest as not to patronize a paper or papers that will keep them abreast of the age. We are of the opinion that if farmers would feed their brains more with agricultural literature, that their stock and farms would present a much glossier appearance than they do at present, and the profits of loan companies would grow the wrong way as a natural consequence.

MCBETH BROS. & CO.

Craighurst, Ont.

### Veterinary.

### How Should Tubercular Subjects be Dealt With?

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

(Continued from November.)

From what has been already said, it will be readily inferred that it is very uncertain what time this disease may manifest itself after infection, for it comes on in such an insidious manner that one is often puzzled in coming to a conclusion, as to the nature of the trouble, which is evidently present. Bad symptoms present themselves in such an irregular and halting way as to mislead the most wary.

Cattle with long, slender necks, shallow bodies, disproportionately long legs, lung capacity small, the result of shallow or narrow chests, are those whose physical conformation is suggestive of a predisposition to tubercle; but frequently subjects with apparently the most robust physiques will develop the trouble.

One of the most reliable signs, as well as a pretty constant one, is loss of condition, or, in other words, the absence of that thrift, which one is justified in expecting from good food and management. In some cases, shrinking proceeds apace, giving rise to the terms, "pining" and "consumption," being used to designate this malady. But it does not do to assume that failing condition is of itself sufficient to constitute a diagnostic sign of the presence of tubercle, in all cases, in the absence of other confirmatory symptoms, even where the food and management are good, for

there are other affections of an obscure character, sometimes occurring amongst cattle, in which malnutrition is the only prominent symptom; occasional coughing of a by no means violent character, is a pretty sure indication, particularly if the breathing is more frequent than natural, but increased frequency of respiration, in connection with chronic cough, is oftenest seen in acute cases of consumption, or those which hasten to a fatal termination, or in the last stages of lingering cases, and when the deposit is in the lungs or their coverings, the pleuræ, which is the commonest seat.

It has been remarked that the tubercular deposits are found in a great variety of situations, but the chest cavity is the one preferred. As can be readily imagined, the seat of the tubercular growths has a great influence upon the nature of the symptoms, and when any particular organ or system of organs is particularly involved in the disease, the symptoms partake largely of the nature of those which characterize derangement of the respective organ. But, as not infrequently happens, different systems of organs are involved in the same subject, which leads to a great complication of symptoms and corresponding difficulty in making a diagnosis.

In addition to chest deposit, abdominal is most common, and the thin membrane (Peritonæum) which lines the abdomen, and forms an outer covering for most of the organs contained in that cavity, is a very common seat. As some very important operations, connected with the restoration of the blood, go on in portions of the peritonæum; when these are interfered with, from the presence of tubercle, the victim loses flesh rapidly, even although the appetite keeps good, which is a rare occurrence in consumption, for it is usually fitful in a pronounced case. In this form of the malady profuse diarrhœa often sets in, and soon carries off the subject.

The coats of the bowels are sometimes the seat of tubercle, when costiveness and looseness alternate, generally terminating in dysentery.

I have seen cases in which the most prominent symptom was bloating of an obstinate character, and, although means of dispelling the gas was resorted to constantly, still flatulence would recur. On *post mortem* of such cases, the walls of the stomach and their immediate surroundings are usually found involved in deposit of tuberculous matter.

Consumptive cows that are milking do not show, in many cases, reduced secretion, but the quality becomes deteriorated, the milk having a blue and watery appearance.

In order to get much aid from the use of a thermometer, with the object of determining whether there is any fever present or not, the instrument should be used several times at different periods of the day, and if the temperature shows an inclination to remain a degree or two over 101 (Fah.), associated with unthriftiness and a capricious appetite, it is an additional link in the chain of evidence indicating "Tuberculosis." A dirty, scurfy skin, dry coat, slow shedding of the latter, and failing flesh, make up the unthrift state often seen in connection with this disease.

Extensive deposits in the chest can sometimes be determined by listening to the sounds emitted over the surface of that cavity. Over a deposit there will be suppression of the normal sounds, while over an uninvolved part they may be noticed to be unnaturally audible, owing to more work being thrown upon the unaffected lung tissue. It must be confessed, however, that even an experienced practitioner has sometimes a difficulty in making a correct reading of the

condition of the lungs and their coverings. The human practitioner has a much larger chest surface in proportion; the surroundings of the human chest are less bulky, and the intelligent patient can breathe in conformity with the requirements of the examiner.

The genital organs of the cow are sometimes the seat of deposit, which gives rise to more or less sexual irritability, causing pregnant animals to perhaps abort their young, or if not in calf, to show a constant desire for the male, but do not conceive.

The nervous centres are not infrequently involved, but more commonly the coverings of the centres are the seat of the deposit, than the nervous matter itself, and the pressure resulting from it impairs the function of nervous supply. Hence, the development of paralytic symptoms, as shown by irregular and imperfect ability to regulate the movements of the limbs.

Young calves occasionally manifest this form of the disorder, and usually are unable to move straight ahead, their efforts at movement resulting in their describing a circle, indicating that one side of the brain is particularly involved. If both sides are affected, there is knuckling over at the fetlocks, difficulty in getting up, and in movement. As the tubercular deposits grow, the symptoms of paralysis become progressively worse.

Perhaps the most palpable sign of tubercular consumption we have in cattle is the deposit, that take place externally, in some cases in the abdominal muscles about the root of the tail, but most frequently in the loose tissue around the throttle. Of course, it would be possible to confuse them with an ordinary fibrous tumour, or abscess with thick walls, but on opening them the uncertainty is readily dispelled, if cheesy or gritty matter is found, these being the usual contents of tubercular growths that have been present for a length of time. If the wound made in opening the enlargement is disinclined to heal, this is additional evidence of its tubercular character.

(To be continued.)

### What Caused the Death of the Cow?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I would like very much to get a little information regarding the death of a valuable cow belonging to one of my neighbors, and the treatment she should have got. The cow had never been stabled all fall, and for about a week previous to being taken sick she had been out in some cold, heavy rains. The first symptoms were violent trembling, loss of milk, and scours; the manure was almost the color of clay, with an offensive smell. She refused all food, but would drink freely; the scours became worse till the fourth day. She passed little after that. She was six days sick. I saw her on the second day. The horns, ears, nose and legs were quite cold. The hide was light, and the back a little sore. A half pound of salts, a strong dose of ginger and some saltpetre were given her. I did not see her again till the fourth day; but on the third day I believe she had been given laudanum, castor oil, and raspberry root tea for the scours. I recommended a long course of hot blankets, and that she be made to inhale the steam from scalded bran, with strong stimulants, such as hot beer, ginger and gruel. The hot blankets were applied for a while, but were not kept hot enough; then they were allowed to get cold. She never got any beer, but a pint of rye whiskey, which, together with the hot blankets raised the temperature considerably, but this was not followed up. It is the general belief that she got some poisonous substance; but it is my belief that it was from cold or chill. She kept getting colder in all her extremities to the last, and died without much pain.

FLEMING ROBINSON

Rydal Bank, Algoma, Ont.

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

The cold rains had evidently driven the blood from the surface of her body inwards, producing congestion of the bowels. There may have been some intestinal

irritation, perhaps the effect of the dryness, and indigestibility of the grass, which caused the increased determination of blood to the bowels. Nature frequently overcomes such attacks by setting up spontaneous diarrhœa, thus relieving the congestion; but if this does not give relief, inflammation results, which is very likely to terminate fatally.

It is very important at the outset to keep a subject very dry and warm. Plenty of blankets are necessary. The diarrhœa should not be abruptly checked. Fifteen drop doses of Fleming's tincture of aconite given every two hours until five or six doses have been given, will often succeed in controlling the altered circulation.

If the discharge does not then abate, and especially if pain is manifested, two-ounce doses of laudanum should be given a cow every two hours and a half; the addition to which of half-ounce doses of tincture of catechu will be advisable. If blood is passed with the fœces, two drachm doses of sulphate of copper may be substituted for the catechu.

It is not wise to allow very much water, and what is given should have some wheat flower mixed with it. Mustard should be freely applied, and diligently rubbed in all over the abdomen. In applying it to the skin of cattle its irritant action is much increased by adding two or three tablespoonfuls of oil of turpentine to the mustard and water.

### The Farm.

PLEASE examine your address tag. If it reads Dec. '87, your subscription expired with that issue, and we will be obliged if our readers will renew at once.

Agents wanted in every locality in Canada to canvass for the "Canadian Live-Stock and Farm Journal." Good salary to good men. Sample copies free. Write for particulars, giving former employment, to the Stock Journal Co., Hamilton, Ont.

ONE Thos. E. Hill, Chicago, in a circular sent to the press for publication, assigns the great amount of drainage done upon the lands of the United States as the cause of drouth and cyclones of frequent occurrence in that country. He does not condemn drainage with a view to further tillage, but recommends that the waters, instead of being allowed to flow down our streams and rivers, should be collected in ponds and small lakes. He would have those lakes and ponds stocked with fish, and so cared for as to render their objects of beauty and utility. The idea is a novel one, and is worth considering. But we are not sure if Mr. Hill is correct in the reasons he assigns as the cause of the drouth. Is it not true that the Indians of other years had seasons very dry, when river, stream, lake and marsh were just as nature formed them. Amid the russet forests the campfire had to be carefully guarded lest the former should become one winding-sheet of flame. It is also true that during recent years we have had summers of exceeding wetness, preceded by years of exceeding drouth, although during the former period there was more of forest and less of drainage. We require to move with much of caution when treading in the realm of the unknown. There can be no doubt, however, that opening up a country renders it drier on the whole, through the freer action of sun and wind. The unarrested winds catch up anything of moisture that they come in contact with, and this is a powerful argument in favor of partial re-forestation. Whatever is done with the waters, let draining be continued until every foot of arable land requiring it is completely drained.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

**Land Drainage.**

BY A. E. MEYER, KOSSUTH, ONT.

(Third Paper.)

The drains should, if possible, be laid at a depth of three feet, and never less than two feet and a half. This applies to land under cultivation. In pasture lands two and a half feet will suffice. Great care should be taken in laying the tile, as the effective working of the drains is largely dependent upon this. It is a matter of much importance that the tiles should be large enough for the amount of water they are required to carry off. Tiles of less dimensions will suffice where there is considerable fall, than where the fall is not so great.

When a field is to be drained the main drain should be dug along the lower edge of the same, parallel to its side, from which it may be distant five yards or more, and at least three feet deep—deeper, if possible. This of course requires larger tiles than the branch drain, as it carries off all the water emptied into it by these minor drains. These should be laid up the slope when not too steep, and should be from two to two and a half inches as a rule. It is not necessary to put straw or any such material over them before filling the drains.

The labor of digging may be economized by ploughing a double furrow along the line of each drain. Much valuable time would be saved if those intending to drain land would draw their tiles in the winter, and the labor of drawing would also be lessened.

The influence which drainage exerts in increasing the agricultural productiveness of a country cannot be doubted by any who have observed the condition to which agriculture has been raised in England within the past fifty years. The greater portion of this success is attributed to the adoption of a thorough system of drainage.

The land in this climate stands undoubtedly more in need of drainage than that of England, on account of our rainfall not being so great. We require that every drop of water shall percolate our soil, consequently we cannot afford to lose any of those heavy showers which rush over the surface of our land, rather to the detriment than to the nutrition of the crop.

Perfect agriculture is the basis of all trade, so that the prosperity of Canada is almost entirely dependent upon her agricultural progression. And in no way can the productiveness of our land be increased to so great an extent as by the adoption of a thorough system of under-drainage.

(Concluded.)

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

**Weeds.**

I.

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

Hitherto, farming in Canada has been carried on in a somewhat careless manner by many farmers. Many of the early settlers were not farmers, but coming into the possession of a rich virgin soil, they were able to secure excellent results notwithstanding their ignorance of many principles which lie at the foundation of a proper cultivation of the soil. Thus we see to-day many wealthy farmers in different parts of our Province that are a marvel to themselves, when they consider how little they knew of the calling, which in a new country led up to such enviable results. They are beginning to grumble at the meagre profits which follow effort at the present stage in Canadian farming. They find the work must be pursued in a different

way than the haphazard, careless method of the past. The early fertility of the soil has gone. It could not have been otherwise, for it furnished plant food without a return being made to supply the constant drain upon the soil. Competition has arisen, and the market has become sickle. With these conditions surrounding him, he who would succeed as a farmer is driven to pursue it in a much more intelligent manner than many have in the past. I shall only enumerate one of the lines along which a change must be made *i.e.*, thorough cultivation of the soil, and in mentioning this it is because it includes the mention of *Weeds*, their nature, and some of the methods essential to get rid of them. Among farmers, there are some that have been very kind to these waifs in plant life, and have always shown their benevolence by feeding nearly as many weeds as the plants intended for a crop. No one in feeding their cattle would quietly stand by and see some from another herd step in and take away what was meant for his own, and yet this is just what is occurring in fields where a crop is sown and weeds allowed to grow. The weeds are taking food from your wheat or other plants, and become a nuisance, appropriating valuable space, and living on the food of useful plants. With a view to bringing the question of weeds before the numerous readers of this journal, I purpose writing a series of papers, as time will permit. But, before entering upon the nature, etc., of the individual plants, it is expedient to make some preliminary observations on weeds in general.

## DEFINITION OF A WEED.

Among the many definitions given, the following may be selected:

1. Any rank or wild plant that grows of itself.
2. A useless plant.
3. A plant injuring the crop with which it grows.
4. A plant out of place, or in other words, a plant growing where it should not.

The last is likely nearest a farmer's idea of a weed. This being the case, any plant becomes a weed if not in the proper place. The flowers we cultivated in the garden become weeds, and sometimes serious ones, when they appear in fields of grain, *e.g.*, poppy, cockle and toadflax.

But there are some plants so frequently out of place, that they have been known to us always as weeds, and it is to the consideration of these your attention is more particularly directed.

## INCREASE OF WEEDS.

I think you will agree with me, that weeds are on the increase in Ontario. This may be accounted for by the indifference of many farmers to the growth of weeds on the roadside, and to the tendency now of introducing a change of seed from other districts. Within the past few years several new weeds have appeared, some of which have no doubt been brought from other districts in new seed. This came under my observation very markedly last year. A plant was sent from the eastern part of the Province for identification. An examination of it showed that it was the so-called "French Weed" (Penny-cress), of the Red River Valley, where it grows in abundance, and in some cases has almost over-run farms in the vicinity of Winnipeg. Likely it has come from that place in imported wheat. Reference will be made more fully to this plant in a subsequent paper.

In Ontario we have about 150 species of plants, commonly known as weeds, and of these, nearly 100 have been introduced from Europe. Every year adds a few more foreigners, and, if farmers are not more vigilant in the selection of seed, we shall soon find ourselves with the number greatly increased.

## SEED-PRODUCING POWER OF WEEDS.

To give you some idea of the number of seeds produced by our most common forms among weeds, the following figures will be of interest.

Wild Carrot, 1,200; dandelion, 1,500; chickweed, 2,000; cockle, 3,200; campion, 3,425; chess, 3,500; dock, 3,700; ragweed, 4,372; groundsel, 6,500; ox-eye daisy, 9,600; mallow, 16,500; motherwort, 18,000; fox-tail, 19,500; sow thistle, 19,000; mustard, 31,000; Canadian thistle, 42,000; red poppy, 50,000; shepherd's purse, 62,500; bull thistle, 65,366; burdock, 400,328; purslane, 500,000; lamb's quarters, 825,000.

When we consider the wonderful productive power and the vitality possessed by weeds, together with the peculiar mode by which many are distributed, the surprise is that we are not over-run more than we are, especially when located near careless, indifferent neighbors.

## MEANS BY WHICH WEEDS ARE DISTRIBUTED.

1. Along with grain imported from other districts.
2. Animals carrying seeds attached to their bodies, *e.g.*, burr.
3. The nature of the seeds; some winged or supplied with hair-like appendages, are enabled to float long distances by the wind, *e.g.*, dock, thistle.
4. The immense number of seeds, and the vitality of some, keep up a continued supply *e.g.*, burdock, mustard.
5. Threshing machines carry seeds from one farm to another.
6. Manure brought from city stables.
7. Renting farms.

**Improved Temporary Pasture and Milk Production.**

BULLETIN XX.

BY WM. BROWN, C. E., PROFESSOR OF AGRICULTURE.

Some may think we have said enough about pasture during the past five years, and that experiments are now conclusive as to what can be done for its improvement. It seems, however, to be desirable to close the season with some additional facts, and under new aspects.

Hitherto our work in testing mixture of grasses and clovers has been termed *permanent* pasture, because the object is the maintenance of such a crop for many years, perhaps even for all the time that several generations can remember, of which we have examples in older lands. But, as it is difficult to grasp the full significance of what goes so far away from our yearly practice, we shall look at this class of pasture as if it had been connected with an ordinary rotation of crops, where, after two years' hay there is usually two or three years' pasturing before breaking up for another succession. Thus we hope to bring home to everybody one of the duties of the day in connection with Canadian dairying.

We seeded in 1884 without a grain crop, and took hay the same year; it could as well have been with a crop of grain. In 1885 we grazed and obtained 7,800 lbs. of milk per acre; it could as well have been another crop of hay. We also grazed in 1886 6,670 lbs. of milk. This, therefore, would be a system of one year's hay and two years' pasture, applicable to some soils and grain-growing districts. The result here would have been a mean annual milk crop of 7,235 lbs. per acre, with \$61 for butter and skim-milk. Had the same land been laid down in timothy and clover, and an average of the Province realized (that is 1,300 lbs. of milk per acre), the revenue would stand at \$11 per acre. Against the mixture of grasses is the sum of \$3.50 as the difference between \$5 for seed and the ordinary \$1.50 of timothy and red clover, for there should not be any for management and manures. Hence, during two years, the improved pasture gave \$55 per acre over all the profits of the ordinary runs for Ontario cows.

But, possibly, neither of these pastures are at their best in three years, and a longer rotation may be desirable.

The same fields were kept in sod during 1887—the driest season in Ontario for many years. As part of good management in continuing temporary pasture, as well as permanent, under heavy stocking for three years, we applied \$22 value of manures per acre, in preparation for 1887, hence we must debit with \$10 per acre as a proportion for that year, in addition to the extra cost of seeding. As this is our closing point at present, take the following statement:

|   | lbs.     |
|---|----------|
| Milk per acre in 1885                   | 7,800    |
| Milk per acre in 1886                   | 6,570    |
| Milk per acre in 1887                   | 4,010    |
| Yearly average                          | 6,160    |
| Value of milk per acre                  | \$156 03 |
| Manures                                 | \$ 3 50  |
| Extra cost of seeding                   | 10 00    |
| Allowance for extra management          | 3 00     |
| Net revenue for three years             | \$139 60 |
| Ordinary pastures for same period       | 33 00    |
| Difference in favor of improved pasture | \$106 50 |
| Or \$35 50 better, per acre per annum.  |          |

The account is now closed, and sod may be broken for a crop of peas or oats.

What more need be advanced meantime? If it is necessary that a sample of the soil, the pasture, the cow, the milk and the manure should be submitted to all our farmers in order to convince and convert, then our national future in dairying will be a slow and third rate one indeed.

Were the average farm of 150 acres in Ontario in possession of ten acres of such improved temporary pasture the annual difference would amount to about \$350, and consequently to about \$15,000,000 for the Province.

It is a pertinent fact in nearly all civilized agriculture everywhere—in older times as well as now—that propitious conditions in nature make men indifferent and unprogressive. In other words, they are too well off. Unquestionably our Province is full of many fat things, and while it may be somewhat uncharitable to draw an inference in this connection, and knowing how easy it is to find fault, I desire most seriously to say to our farmers that individual and Provincial co-operation and emulation are as much desirable as the wider lines of international union. For the sake of self, then, let us have something approaching to 6,000 lbs. of milk per acre, in place of the 17½ lbs. per cow per day and the 900 lbs. per acre per annum. (See Mr. Blue's paper to Dairymen's Associations, 1886-7).

### The Grain Crop of Ontario for 1887.

The following bulletin summarizes the November report of this Bureau on the principal cereal crops of Ontario for the current year.

A. BLUE, Sec'y.

Bureau of Industries,  
Toronto, Nov. 4, 1887. J

The yield of fall wheat is 14,440,611, being 3,630,531 bushels less than last year and 5,162,609 bushels less than the average of six years. The berry is small, but hard; and while some correspondents say it is below the standard weight, others claim that the hardness and soundness of the grain fully compensate for its lack of size. The average yield per acre is 16 bushels.

Spring wheat may be set down as a general failure, for while a few good fields are reported, the common result is a small yield of inferior quality. The estimated yield is 5,633,117 bushels, against 9,518,553 last year, and 9,713,979 for the average of six years.

The barley crop was saved with scarcely any injury from discoloration, but while the grain is bright it is light in weight and the yield per acre is less than for any harvest of the last six years. The total product is 17,134,830 bushels, which is 2,377,448 less than last year and 2,031,583 less than the average of six years.

Owing to the hot, dry summer the oat crop is below the average in yield, and it is also light in the measure. For a few localities, where the land was low and new, or where local showers prevailed, better accounts are given. The estimated produce is 49,848,101 bushels from 1,682,463 acres, against 58,665,608 bushels from 1,621,901 acres last year.

The accounts of peas are more varied than those of any other crop. Where sown early and favored by local showers a fair yield is reported, but under other

conditions the pods filled imperfectly, and in some localities the crop was nearly a total failure. The estimated yield is 12,173,332 bushels from 726,756 acres, against 16,043,734 bushels from 703,936 acres last year.

The following table gives the acreage, produce and yield per acre of the several crops for 1887, 1886, and the averages for the six years 1882-7.

| Crops.        | Acres.    | Bushels.   | Yield per acre. |
|---------------|-----------|------------|-----------------|
| Fall wheat:   |           |            |                 |
| 1887          | 897,713   | 14,440,611 | 16.1            |
| 1886          | 886,402   | 18,071,142 | 20.4            |
| 1882-7        | 968,292   | 19,603,304 | 20.2            |
| Spring wheat: |           |            |                 |
| 1887          | 484,821   | 5,633,117  | 11.6            |
| 1886          | 577,465   | 9,518,553  | 16.5            |
| 1882-7        | 626,104   | 9,713,879  | 15.5            |
| Barley:       |           |            |                 |
| 1887          | 767,466   | 17,134,830 | 22.3            |
| 1886          | 735,778   | 19,512,278 | 26.5            |
| 1882-7        | 734,540   | 19,166,413 | 26.1            |
| Oats:         |           |            |                 |
| 1887          | 1,682,463 | 49,848,101 | 29.6            |
| 1886          | 1,621,901 | 58,665,608 | 36.2            |
| 1882-7        | 1,522,622 | 54,419,177 | 35.7            |
| Peas:         |           |            |                 |
| 1887          | 720,750   | 12,173,332 | 16.8            |
| 1886          | 711,236   | 16,043,734 | 22.6            |
| 1882-7        | 625,207   | 12,912,450 | 20.7            |

The Manitoba estimates of 1st October give 12,351,724 bushels of wheat, and 7,265,231 barley; while estimates of the same date give for the United States a yield of 450,000,000 bushels of wheat, 600,000,000 of oats, and 55,000,000 of barley.

### Romaine's Modern Steam Farmer.

(Continued from November.)

#### OBJECTIONS ANTICIPATED AND ANSWERED.

Without a doubt, the advent of the Modern Steam Farmer upon its perilous work of overturning the time-honored methods of agricultural practice will be the signal for the springing into resurrection life of a host of objections to be marshalled against it in battle array. Some of these we have anticipated, as we have been forewarned of their coming, which to the wise means simply to be forearmed.

*Objection 1.*—The first cost will be so great that the ordinary farmer will be unable to bear it. Answer (a) several farmers living adjacent can combine in the purchase, where the land is suitable; (b) this objection will not apply in the case of large land-holders and extensive market gardeners near the large towns and cities, or of planters either in the Southern States or East and West Indies.

*Objection 2.*—There is no overturning or inversion of the soil. Answer. We admit that this would be a serious objection where the tillage might be imperfect, but where it is so thorough that all existing weeds must soon perish and no intruders can get a footing, it loses its force.

*Objection 3.*—It does not bring the subsoil to the surface, and therefore will not encourage that deepening of the soil so essential to a high state of cultivation. Answer. It is true, it does not bring the subsoil to the surface, but it does what is far better—it cuts to the required depth the subsoil into a fine tith and lifts it up a few inches. Unless the subsoil is brought to the surface in very small quantities at one time, it will render the surface useless for the purposes of agriculture, as many a rash experimenter has found to his cost.

*Objection 4.*—It throws workhands idle in winter. Answer, (a) not necessarily so more than other modes of unmixed farming. Mixed farming may be carried on with the aid of this machine as well as without, by keeping one portion of the farm in grass, and alternating for periods of shorter or longer duration; (b) large quantities of flax may be grown, caring for which during the winter would provide a good deal of labor, assisted by the Steam farmer.

#### THE RESULT OF LONG YEARS OF STUDY.

The Modern Steam Farmer is not the realization of a dream of yesterday, it is the outcome of thirty-six years of patient experiment on the part of its inventor, who, many years ago, supported by letters of introduction from Lord Elgin, went from Canada to England, and there patented a rotatory steam spading machine, capable of turning up on the principle of digging, many acres of land in a day, to the depth of

twelve inches, and completely pulverizing and inverting it. But it did not sow the seed, in the process of which the subsequent treading sank much of it so deeply that it perished. This it was that prevented Mr. Romaine from triumphantly capturing the five hundred pound prize offered by the Royal Agricultural Society of England in 1862, "for the best application of steam power to the cultivation of the soil."

References are made to this machine in the *Illustrated London News* of October 3rd, 1857, p. 350, and *The Engineer* of July 19, 1861, quoting from the *Mark Lane Express*, where the statement is made in referring to the award of the Royal Agricultural Society, that "insufficient justice has been done to Mr. Romaine, the work performed by his rotatory cultivator being the perfection of spade handiwork." But excellent as was the work done by the machine, the amount of horse and manual labor required to follow it was so great that the inventor laid it aside, prosecuting his labors with a determination that brooks no denial, the reward being the completion of the Modern Steam Farmer, ready to satisfy the desires of the land-holder who may have the enterprise to secure it.

#### INVESTIGATION INVITED.

Romaine's Modern Steam Farmer is now placed before the agricultural world with the full assurance on the part of the inventor that its use will revolutionize to a very great extent existing systems of tillage, and introduce a new epoch in the march of agricultural progress. He is well aware of the opposition that such an introduction as this is sure to produce, or the history of the past will cease to repeat itself, and of the keen criticism to which it will be subjected, before it will be given that place on the farm which it is expected to occupy at no distant day. And all this is not profitless, but a necessary crucible, as it were, in which new introductions must be tried to determine between the true and the false, the useful and the useless.

It is just this criticism that will be most warmly welcomed. It is not the criticism of public-spirited men of large means, and of legislators, who had it in their power to help, that has well-nigh crushed the spirit of the struggling inventor, nearly forty years of the best of whose life, the writer feels quite safe in saying, has been placed on the world's altar of agricultural advancement; but it is their indifference. Hence it is not impossible that the mistake of the dead centuries may be repeated once again—that of allowing a benefactor of his race to struggle unassisted in life, and building a costly monument over his unconscious ashes.

Any further information that may be desired will be cheerfully furnished on application to Robert Romaine, House of Commons, Ottawa, Canada.

### The Crane Fly: *Tipula Oleracea*, Order Diptera.

J. HOYES PANTON, M.A., F.G.S., PROFESSOR OF NATURAL HISTORY AND GEOLOGY AT THE ONT. AG. COLLEGE.

Some time ago there was brought to my notice an insect which has on different occasions proved injurious in the low lying districts on the western side of our province. A farmer who had suffered considerable loss from the larval form of the insect wrote, asking information regarding its nature, and suggestions for its destruction. On being requested to send some of the grubs for identification and study, he forwarded several, which in the course of time developed into the perfect insect, and I was enabled to suggest a course of action which resulted in a good crop, where had the seed been sown as formerly, it is likely the grain would have been completely destroyed, as it had been some time before. On ploughing the field he observed the grub that had destroyed his former crop, and thus was led to seek information, feeling that he must pursue a different course, if he desired satisfactory results.

The cause of this trouble is an insect called the Crane Fly, or Daddy Long Legs. It seems to be confined chiefly to our low-lying land in the west, but is very common in England, and often proves very destructive.

The flies (not unlike very large mosquitoes) are seen especially in autumn, in neglected grassy spots, meadows, and on marshy ground, where they deposit their eggs, which in due time produce grubs that destroy grass and grain crops by gnawing the young plants just below the surface of the ground.

The female lays her eggs chiefly in autumn in the ground, or on its surface, or on damp grass close to the ground. These eggs are very small, black and shiny, and as many as three hundred have been found in one female.

In spring, the grubs or worms hatched from the eggs appear, and begin to feed upon the plants at hand. They are legless, cylindrical, of a dirty greyish colour, wrinkled across, and when full-grown about an inch to an inch and a-half in length. The tail of the grub ends abruptly, as if cut off; the head is protruded as a blunt point, armed with two strong black jaws. Though legless, the grub has such power of contracting and expanding in length, that it can readily pierce the ground or wriggle itself forward. It is often found at night on the surface of the ground. From the toughness of its skin the grub is sometimes known as "Leather Jackets." Having reached full size about the middle of May, it becomes exceedingly destructive for a time. Those which were sent to the College passed into the pupa stage about the third week in May. The larva is exceedingly hardy. It can be frozen till quite brittle, and yet, when thawed, be active; it can be immersed in water 100 hours, and can do without food for over three weeks.

The resting or quiescent state, usually called pupa, is undergone below the surface, but sometimes under the protection of weeds. The pupa (containing the future fly) is furnished with short stout spines, pointing backwards, by means of which, when the proper stage of development is reached, it can raise itself upward through the ground. As soon as it reaches the surface and rises a little above it, the horny-like pupa case splits, and leaving the empty case standing upright, the Crane Fly comes forth and spreads its legs and two wings. The specimens developed at the College completed their pupa stage about the 29th of May. This is important to remember, because a crop sown after that date will in all likelihood escape injury by the grub. Our instructions to the correspondent were based on this observation, and, on inquiry, we found he had succeeded in getting an excellent crop of beans which had been planted on the 11th of June.

The perfect insect resembles very much in external appearance the muscivora, but is about four times as large. It has one pair of wings, and behind them a couple of slender structures, one at each side, with a knob at the end. These delicate rod-like structures are about the tenth of an inch in length. The body of the insect has a tawny brownish appearance.

#### REMEDIES.

1. Prevent as far as possible the depositing of eggs. The female seeks damp meadows, neglected herbage and shady spots found at the sides of cultivated fields, and under the shade of trees in open fields. Remove such conditions by drainage, mowing the neglected ground and burning the mixed grass and tops of weeds. The pasturing of sheep on affected places is good, as they eat the grass well down and trample the ground a good deal.

2. Many birds are of great help both in destroying the larva and the full grown insect; consequently a method of cultivation calculated to expose the grubs for the birds will result beneficially.

3. Deep ploughing of infected pasture is a good practice, as it prevents the hatching of the eggs, and places the grubs where many are likely to perish for want of food. Rolling the land, especially late in the evening or at night, has been followed with good results, for many are crushed and others are impeded in their progress through the soil.

4. The application of certain fertilizers, such as guano, salt and nitrate of soda, are beneficial in promoting a quick and healthy growth, thus enabling the plants to withstand an attack. Some have found an application of gas lime on the fields before breaking up serviceable.

5. Sow as soon as the larval condition is past—in the case under consideration about the first week in June. As soon as the pupa cases are seen sticking up in the soil the grub stage has ended, and the insect is fully developed. A well-drained soil, thoroughly worked and pulverized ground, and plenty of manure are very likely to keep off an attack.—*Bulletin XXII, Ont. Agr. Col., Guelph, Nov. 15, 1887.*

### The Annual Ploughing Match of the County of Hochelaga.

The match was open to both Ontario and Quebec, and a number of veteran ploughmen from Ontario were not slow to avail themselves of the opportunity of trying their strength with their brethren of the east. For the best two ploughed ridges in the field, Mr. Andrew Hood, of the township of Scarborough, Ont., won the handsome gold medal presented by Mr. Hugh Paton, M. F. H., and \$75. The second prize went to Wm. Milliken, of the township of Markham, Ont., and the third to Thomas McLean, township of Vaughan, Ont. There were a number of other prizes in this class. In the young men's class the first prize was won by Joseph E. Robert, St. Laurent, P. Q.; the second by Robertson Howick, P. Q., and the third by John Andrew Scott, Cote St. Michael, P. Q. There were also a number of additional prizes in this class.

The first prize in the young men's class was donated by Mr. Thomas Irving, Petite Cote, the president of the society, and consisted of a gold medal and \$30.

The Ontario ploughmen are loud in their eulogies as to the courtesies they received at the hands of their Quebec brethren, giving unmeasured praise to the president; Mr. Hugh Brodie, the secretary-treasurer, and Mr. and Mrs. Buchanan, the host and hostess, who entertained them so royally during their stay.

The judges were Mr. Simpson R. Rennie, Milliken, Ont., the winner of the sweepstakes gold medal last year for Ontario farms, and Mr. Sharpe, the winner of forty-one first prizes in Scotland without a break.

### First Prize Essay

ON "THE RELATIONS BETWEEN EMPLOYERS AND EMPLOYED IN CANADA, WITH SPECIAL REFERENCE TO THE FARM, WITH A VIEW TO IMPROVING THOSE RELATIONS."

(By the Editor.)

(Continued from November.)

It cannot be denied that there is oftentimes a tendency, painfully prevalent, on the part of the employed to *shirk duty* in the absence of the employer. It has its seat in the moral derangement of the spiritual man, and is largely the result of a neglect of training. In its essence, it is a practical ignoring of the Omnipresence of the Almighty and of the day of reckoning, when the actions of men shall be weighed in eternal balances, which never fail to give a correct weight.

The indications of this moral disease are not far to seek. Amongst the symptoms we may mention, long friendly chats between the ploughmen at the end of the furrows, a great desire to study the astronomy of the sun from ten o'clock a. m. till noon, and from four p. m. till night, a wonderful elasticity of movement when the "boss" comes in sight, and the passing of a resolution at the caucus meeting in the evening to "spot" the one who is trying to do his duty unless he desist. So grievous is this disease—which by the way is wonderfully infectious—that it practically renders *nil* successful farming in Canada, where the proprietor or his foreman are not pretty constantly on hand.

But where, we ask, are faithful foremen to be found? We have met with but few of these in Ontario, during the journeyings of the past two years, who are worthy of the name. The reasons of this rarity are not far to seek, as the ambition of our best laborers has hitherto been to obtain farms of their own. Many of the farm foremen who are here now, have been imported from Great Britain. But two things militate against them—the current of the blood does not keep pace with the quick march of our Canadian summers, and they have been used to the handling of more assistance in the accomplishment of a certain amount of labor than our Canadian farmers can afford. Relief here must rather be looked for from our farmers' sons on small farms, and from the sons of British emigrants who bring along with them all the reliability of their fathers, and graft the same with the quick-

ness of movement so requisite in this land of impatient summer seasons. We know of no better opening for any working men who desire to live in the country, than that of farm foreman. Though competent men of this class should come from the north and the south, and the east and the west, there would still be a demand for them, and at a fee practically better than that given to the teacher of the common school. Relief in stock-keeping must in the meantime come largely from Britain, where the care of good stock is, as it were, a second nature to many of the stalwart yeomen of those islands.

The hope of making a foreman out of an ordinary farm hand somewhat advanced in life, unused to the position, is a forlorn one. One of the most essential qualifications of a foreman is the faculty of keeping his mind running over his work so that nothing is forgotten or overlooked. His plans are so hinged that they may be disjointed and re-adjusted with any change of wind or weather, without serious loss of time on the part of those whom he directs. If not acquired early in life, this habit of rapidly taking in the situation comes not later. It may indeed be termed a lack of capacity, but it is a lack that disqualifies. It might prove a good plan for the farmer to look out a young man amongst the many who pass through his hands in this changing country, and train specially for the work.

The employed on the farm too often manifest a *heartless indifference* to the material welfare of the farmer. So far is this frequently carried that words cannot utter the extent of the evil. It oftentimes arises from thoughtlessness, but oftener it is to be feared, from a perversity of will, which ignores all moral obligation, other than that defined by the regulations of the civil code. The ways in which it manifests itself are legion. We mention a few as samples: In drawing manure to the field, the employed will lay it down in hollows as thickly as upon the hills, though properly instructed previously as to how it should be done; in letting down bars they will be allowed to fall upon the ground, even from the top peg, which soon either splits or breaks them; the gate has not been opened wide enough, the corner of the waggon rack catches it, and the headpiece is splintered; the barn doors are allowed to clog beneath with manure in winter, and the hinges are broken; gaps are left down to the detriment of the crops; a spade is used for a crow-bar, and an axe for a spade, and tools are left lying just where used, especially the smaller ones, as bolts, wrenches, whetstones. Talk of the effects of the tornado! Give half a dozen men full swing upon a farm for but one season, without close supervision and we have these in perfection in the broken buildings, dismantled harness, strewn fences and general havoc that abounds on every hand.

Say not he picture is overdrawn? How can it be overdrawn? We speak the words of truth and soberness when we write thus, drawn in part from the bitterness of experience, and we cannot but believe that the *morale* of workhands on the farm in Wentworth county is much the same as in the counties of Lambton or Russell. There are some noble exceptions, it is true, and we have met with some of these; but they are infrequent. A farmer with but one workhand, and he generally by his side, will have but a dim idea of the picture we have just drawn. It will be different, too, where there is but one man laboring on the place without close supervision, for he feels some sense of his responsibility. It is when half a dozen congregate on the farm, without such supervision, that the vandalism is seen in all its terrors, and every one added to the number but increases the power of the engine of destructiveness. To be sure competent foremen would do much to mend this state of matters, but where shall we find them?

One would suppose that self interest would lead the employed to do differently. Both classes are slow to learn that they best subserve their own interests when they try to promote the real interests of the other. The farmer should not forget that his employed is a man, though he may be an imperfect one, and that his lot is a hard one, though for this he may be largely responsible himself. The employed should endeavor to bear in mind that fidelity will not go unrewarded. Though one employer fail to recognize this, another will, and the faithful laborer will never have to seek a place.

One of the commonest causes of inefficiency on the part of farm servants arises from *lack of thought*, from an inherent disposition, as it were, to allow the powers of mind to lie dormant; they will not fasten those

"I would like to see the JOURNAL in every farm house in Ontario. I have taken it for three years, and would not do without it now."—JOS. CRONE, BIRMAN, ONT.

powers upon their work, but allow them to roam about ungoverned, without any fixedness of aim. When one goes to the bush for a load of wood, he finds himself there, it may be, minus a chain or an axe; in going to plough or harrow, he reaches the place but to return again to the tool house, for a wrench or clevis. For the time thus lost he is responsible, though the loss has to be borne by the employer. Moral perversity alone on the part of the former allows the employer to bear the loss, or to put it differently, it is this which prevents him from so improving his methods that this inefficiency would not be allowed to continue.

The powers of mind can be used to great advantage in every department of manual labor on the farm, and in this, rather than in the degree of physical strength, will lie the difference in the work of servants to their employers. In spreading manure the concentration of the powers of mind will direct the peculiar motion of the fork that will leave its load scattered evenly and in the right place, whereas the careless workman would first cast the forkful somewhere on the intended plot and scatter it after, involving a loss of time. Multiply this loss by one hundred such movements in the day and it becomes a serious matter, and so of all other forms of labor on the farm.

Using the powers of mind requires effort, and this it is which prevents so many from using these—a constitutional sluggishness which becomes habit and which deepens, as other habits do, with the lapse of years. But workmen who will not get out of this rut need never hope to rise above the dead level of mediocrity in their pursuits; they will never be other than hewers of wood and drawers of water all their days, and we mean no disrespect when we say this. It is the self-training of the powers of mind in their relation to the performance of labor which more than anything else fits men for the position of foremen, for the same faculties which enable one to perform labor well, will, we apprehend, largely enable him to plan it well. As things are, the employer or the foreman has to do the thinking for all the men, or at least in great part, the necessity for which adds immeasurably to his burden and detracts in the same ratio from their usefulness.

Let it be distinctly borne in mind that we have by no means classed all farm laborers in the same category; it would be most unfair to do so. One class of them, the sons of farmers on small farms, looking themselves in the direction of proprietorship, are generally useful; the training they have got at home largely accounts for this, but, like all good commodities, they are both scarce and dear. A second class who seem to have no other idea than that of servitude on the same plane, are, to a great extent, time-servers, and are tolerated from sheer necessity; they are localized in their habits and their own ambition seems to be to make both ends meet, let wages be what they may. Now and then one will step out of this rank into the former, but not often. It is a pity that in their case life should be so aimless, as the number of farm laborers is very limited who might not, in this country, lay by something in the bank at the end of every year. A third class—roamers—never hire twice in the same place; they work a bit here and there when necessity compels them, and their morals, like their ways of life, are usually very loose. Farmers who are alive to their own best interests and those of their families, will shun those men. Then there are immigrants, the hiring of whom is something of an experiment the first season. They should not be relied on in such a case to do the work of an experienced hand, though oftentimes they become valuable men on the farm. For immediate relief from the present shortage of good laborers, the farmer should look to the manufacturer, rather than to the laborer, as labor-saving machines break no implements, tell no tales, speak out no impertinence and never play hide-and-go seek when they should be at work.

#### DOMESTICS.

Much of what we have said regarding out-door help will apply to that within, and in the different relations, social, material and moral, and the remedy that we shall prescribe below is equally potent with domestic assistance as with that out of doors. There are two elements of difference, however; the first is, that while out-door help is scarce, in-doors can scarcely be secured at all, and the second, that while the employed on the farm are well paid, those in the house are not, at least as we regard it.

There are causes at work which prevent girls from going out as servants which do not apply equally with young men, which in part accounts for the great

dearth in this class. There is a growing feeling that it is the opposite of *gentle* to go out to service. Where fathers do not hesitate to send their sons to the employment of a neighbor, mothers whose course we cannot praise, keep their daughters at home, hangers-on, parasites on the earnings of their fathers and brothers. Not a very elevating mission in life, that of a parasite. Then there is more of a tendency in maidens of this class to look toward even than with their brothers; they cannot get abroad in the country so easily as the other sex to commingle with society, and confinement that fetters in a slight degree at such an age is felt to be captivity.

The wages that they get are quite out of proportion in the sense of diminution, as compared with those paid to the men. While the former get but six dollars and forty seven cents per month on an average, the latter are paid seventeen dollars and thirty two cents. We quote from the report of the Ontario Bureau of Industries for 1885. We presume that the wardrobe of a maiden costs her quite as much during the year as that of her brother costs him, and she certainly does work, the value of which is more than one third of that done by the former. If servant girls were sufficiently paid on the farm, they would not be so difficult to get.

The hours, too, which they work are usually too long; they should have at least a portion of the evening to themselves, if not the whole of it, and should not be kept too severely from going out occasionally to see the daughters of the land. Being more emotional than the other sex, they are apt to pine under severe restrictions.

It is peculiarly unfortunate that the flower of our maidens drift cityward, as do the flower of our young men, for usually they go, never to come back again, but are absorbed by and incorporated into the great mass of struggling life that surges there. Our matrons in the country should do their best to retain their services by offering better wages, and by so ameliorating their condition of servitude that they will be loth to exchange it for what is less substantial, however attractive may be its glitter. Nor is it less unfortunate that the future mothers of the country are so shy of country service. The young man of the farm who puts in a term of employment with some neighbor farmer is very likely the gainer in other ways than in cash, as he sees life there in another phase, and anything thus gained by experience will be of service to that young man when he tills a farm of his own. So, too, of the services of domestics.

There is usually about an equal number of the sexes born into the world, and there should be no more difficulty in getting the help of the one class than that of the other, and yet there is. Education of the right kind will give some relief, as a mother properly educated will not look upon it as a stigma to send her daughter out to service where there is need for it, but rather the reverse. In the meantime some relief may be got from the various emigration agencies, charitable and otherwise, though relief from these sources is not always over satisfactory. Nor should it be forgotten, as sometimes it is, that the ability to work, backed up by the will to do it, from the daughters of the farm, will bring relief in its most substantial shape. A doll may pass in a city drawing-room, but is woefully out of place on a farm.

#### How is it Accomplished?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In the editorial of your September number, in the second column, I find the following: "A good, well-tilled farm, ever increasing in fertility, is within the reach of the coming farmer." Now, Mr. Editor, if you would enlarge on that sentence, and inform us how can this thing be, you would make this Jubilee year doubly jubilant to Canadian farmers. We will engrave your name in letters of gold, and hang it next the motto, "God Bless Our Home." My ambition has ever been, and still is to have "a good well-tilled farm ever increasing in fertility," and though I have toiled forty years on a farm, the object of my desire remains unattained. In fact, I find it harder to make both ends meet now than I did at the beginning, and my only consolation is, that being unsuccessful, I am on the side of the majority.

I am not an educated farmer. All I have accomplished was dictated by common sense, and effected by hard work, and after those years of labor, I have arrived at the lamentable conclusion that the longer we live on the farm the poorer the soil is getting. I have done all I could to improve my farm; I tile-

drained largely, and keep thoroughbred stock; I consume everything I raise on the farm, and if I sell a load of hay or straw, I must buy the worth of it in manure, still I cannot keep up the fertility of the soil.

If you can prove what you say, you have found the Philosopher's Stone. Out with the secret entombed for the last six thousand years, and let us know how "A good well-tilled farm, ever increasing in fertility, is within the reach of the coming farmer."

BACKWOODSMAN.

Nov. 7th, 1887.

We verily believe it can be done; that "a good well-tilled farm, ever increasing in fertility, is within the reach of the coming farmer." And when we say this we do not in any way intend to reflect on the methods of "Backwoodsman," for there may have been something phenomenally exceptional in his situation. The conditional immortality promised by our correspondent would be certain under ordinary conditions, if the course we map out is duly followed. Our assumption is this—that nature without the aid of man increases her resources, a fact patent to everyone; nature with the intelligent aid of man, will increase them more rapidly, so that a country rightly tilled will increase rather than decrease in fertility, without drawing upon outside stores of fertility. A complete system of husbandry is very seldom adopted, hence the provision made in nature of stores of mineral and other fertilizers, to supplement the waste entailed through the prodigality of man. If the only hope of the farming community was the forlorn one, that notwithstanding their best efforts, they must hand down as a legacy to their successors, a farm, the fertility of which must continually decrease, till it comes to an end, and this is the logical conclusion which the line of argument used by "backwoodsman" leads to, then the doctrine of the epicurean is the only wise one, the generations of to-day should eat, drink and be merry, under the fatalizing belief that the generations yet to be must dwindle in their resources till the species become extinct.

So far as "Backwoodsman" has told us regarding his methods, these are undoubtedly correct, but when he tells us at the same time, that the longer he lives on the farm "the poorer the soil is getting," we must ask for further light. He has not told us if he saves his bones and has them ground, or if he puts their equivalent back again on the farm; if he applies his wood ashes *always* before they are leached with rains. He does not say as to how much of the liquid manure is lost, nor how the solids are applied, nor do we know if any use is made of the contents of the water-closet. The methods of the farmer may be correct in every other particular, and yet, without being conscious of it, he may easily waste *one-half* the nutriment of his fertilizers through defective handling.

That "Backwoodsman" finds himself worse off than in years gone by is an entirely different matter, for a man may be correct in all his methods of farming, and yet if his application of these is not energetic, he may not succeed. Again, the trade relations of this country may be so far against him that they bar the way to all advance. Locality may keep him back, as distance from markets. He may have good pure-bred stock, and yet his benighted neighbors will not buy it, and so of other hindrances, which we do not stay to name.

Let all the fertilizing resources of the farm be duly utilized, nothing in this line being allowed to go to waste. Let the waters that fall upon the land be conveyed away in underground drains, after having left their residues in the soil, and let the farm be kept stocked to its full capacity all the time. In such a case "a good well-tilled farm ever increasing in fertility is within the reach of the coming farmer." There

is, of course, some loss through the live-stock products sold, but those, we believe, form a less factor than the rains wash out of the air to replace what is thus removed.

### Report of the Judges on Prize Farms for 1886.

(Continued from November.)

#### SPRINGBANK FARM.

The way from Rock Farm to Springbank, over the C. P. R., is picturesque. Pretty little river hurry on to join the Ottawa, and the darker green that defines the autumn frosts, and cold of winter, commingles with the paler tinges, to perish in a few brief months. Some of the land, a good portion of it, is rocky, and some filled full of stones, other portions are swamp, and yet there are a goodly number of levels and pretty valleys of surpassing richness. On the morning of July 1st, while the dews were yet lifting, we were taking in the beauty and the worth of Springbank Farm, in the Township of Horton, and County of Renfrew. This farm, consisting of 200 acres, is owned by Mr. John Airth, and was awarded the second silver medal in the competition of 1885. Much of it is level, although it contains a few rocky ridges. Here, with a wisdom that deserves much praise, Mr. Airth is allowing his forests to grow, which, in this way yields a revenue to the extent, at least, of the firewood used, which is quite an item from what would otherwise prove worthless. Others of them, which the shortsightedness of someone laid bare in years gone by, he is replanting. This, in coming years, will dot the landscape with gems of beauty, where otherwise there would be but the dreariness of a lonely desolation. Five hundred silver maples, for transplanting, were growing in a cultivated plot, to plant along the edges of the gullies and ravines, of which nature has placed a few on this farm.

The fences were mostly cedar log, and well built; the fields were large, and except in the pastures, were well cleaned, and the crops growing on them were very good this year again, except that the hay had suffered from the intense cold of winter, at a time when the meadows were bare.

The method of tillage on this farm is commendable as it is thorough, and much care is taken to feed the land well, the alphabet of all successful farming that is to continue. In the 11 acres of summer fallow, a crop of clover and manure had been buried, to be resurrected next year in the form of wheat. The crop consisted of 24 acres of hay, 11 oats, 11 peas and oats, to be cut with the binder and threshed, a practice that is surely commendable, 22 acres of spring wheat—and in addition a large amount of peas and oats, and other grain on another farm. The averages for the past three years have been wheat, 26 bushels; oats, 55 to 60 bushels; peas, 20 bushels; hay, 1½ tons to the acre, turnips, 600 bushels; and potatoes, 200 bushels, which denotes good farming.

About 900 rods of drains have been put in, mostly as mains, and made of pine boards and cedar. The soil is a soft clay loam, resting on a sub-soil of open clay.

The stock of the farm consists of 31 head of cattle, 16 of which are milk cows, headed by an imported Holstein bull. The 12 calves have, without exception, the Holstein markings. There are about 70 sheep, heading in the direction of the Oxford Down cross, and sufficient horses to work the farm. The milk is being sent to a cheese factory, and Mr. Airth is one of the few men of this region who is looking earnestly in the direction of producing shipping beef, so soon as his buildings shall be so arranged.

The buildings are mostly cedar log, strong, substantial and durable, and some of them are soon to rest upon a basement foundation. The garden is very neat and sufficient, guarded by a pretty cedar hedge, but orchards, in this land of stern winters, do not flourish.

Manure is ploughed under in the summer fallow in the spring, the balance going on to land intended for roots, but the rotation is so fully given in the report of last year that we forbear saying any more here.

Mr. Airth has a farm not so easily managed as are the farms of some. The stony ridges referred to are perplexing in the laying out of fields. The C. P. R. cuts off one side, which adds to the perplexity, and considerable is yet to do, by way of removing obstacles to cultivation. An arrangement, consisting of the strong wheels and axles of a waggon, with a stone-boat

suspended, speaks of the intelligent way in which this is done, and this it is that pleases us so much in Mr. Airth's methods; everything that he does is progressive in its nature. While the smoke of the lime-kilns lazily ascends beyond the Bonnechere, and a majority of the farmers around are about as aimless in their methods, or they never would be content to let the stones that disfigure their farms sleep on in their resting places, when they might as well be in bank barns, Mr. Airth, like the waters of the river of his native Renfrew, is always hurrying on in the way of what is better in agriculture. But it is achievements attained that we are to sit in judgment upon in this contest, not those in prospective. And this, in this land, less favored by nature than much of our garden country in the west, shuts him out in this race.

Leaving Renfrew, and the Pinnacle range, with its frowning brow, at 1 p. m., for Kingston, over the Kingston and Pembroke Railway, we soon got into a region of rocks and stony ridges and little lakes, around the borders of which dead underwood was strewn in a confusion that repels, occasioned by the damming of the waters at some part of the outlet. From Calabogie Lake to Lake Sharbot, a distance of probably 50 miles, the iron horse came galloping up long defiles between the granite hills, on a serpentine course, where dead and living pines, far thicker than the masts at Liverpool, look down upon the curious trail below. Now a little stream stole on, with music in its flow, but it was the music of loneliness, and here a spreading lake expanded, with an island on its bosom, where, amid the tangled underwood, a recluse might sulk to his heart's content. Granite rocks dumped by ancient convulsions, lay all around; dwarf underwood tried everywhere to get a hold amid the rock crevices. The forsaken cabin of the lumberman came now and then to view, and ever and anon we left behind us the tangled underwood of the marsh in this forlorn region, where, in the dread hours of the night, the lonely spirits of the air must hold an awful carnival.

#### SPRINGFIELD FARM.

Leaving the iron horse to pant at the station after his one hundred mile race and more, we hurried on over the long Catarqui bridge, and adown the Gananoque road to this farm, situated in the Township of Pittsburg, 4½ miles below Kingston, consisting of 215½ acres, of which 172½ acres are arable, 41 acres rocky, and 2 acres private roads. It is one of those long, narrow farms so common in the St. Lawrence region, and as a consequence so awkward for him who tills them. It is nearly two miles long, and has a width of but 40 rods in front, which is doubled in the rear.

The rocky ridges are all covered with very pretty forest groves, which gives the place a very picturesque appearance. The wood on them is more or less of second growth, which very much adds to the beauty of those park-like clumps.

The buildings are not far from the front of the farm, and consist of a new brick dwelling, 33 by 22 feet, and kitchen, 24 by 22 feet in rear, the latter of stone. This house is so situated as to command a beautiful view of Wolfe Island, with its stores of fertility, and many other features of fine, soft St. Lawrence scenery. There is a group of barns near the dwelling, and also a basement barn near the centre of the farm.

Two watercourses cross the farm, which go far to supply it with water, the balance being got from wells. One of these crosses a ravine both deep and wide; this has been built over by a cyclopean stone structure which must contain hundreds of cords of stone. We never saw the like on any farm. It alone speaks volumes for the perseverance of the owner of this farm in what he undertakes.

The private roads winding around the lovely groves of oak, maple and hickory, all grown since the last of the U. E. Loyalists was laid in his grave, call up visions of some gentleman's park, and Mr. Wilmot deserves much praise for the fidelity with which he has preserved what is at once the covering and the ornament of these rocky limestone ledges.

Sixteen thousand yards of under-drain have been laid on this farm, part tile, part stone and part hemlock boards. The hemlock board drains Mr. Wilmot considers worthless, and the tiles give the best satisfaction.

The manure is applied, (1) in spring as a top dressing on land sown to barley, (2) in the autumn, on sod about to be ploughed, and (3) on summer fallow to be cultivated in.

The stock of the farm comprises 29 head of cattle, 60 sheep, 5 working horses and a driving horse. Some of the cattle are pure Shorthorns, the balance Shorthorn grades.

The principal crops of the farm are wheat, barley, peas, hay and potatoes. At the time of our visit they did not look over strong, but during recent years they must have done well, as Mr. Wilmot informs us that during the past three years the averages have been, fall wheat, 30 bushels per acre; spring wheat, 30 bushels; barley, 35 bushels; peas, 25 bushels; and hay two and a-half tons per acre.

Fencing material is not plentiful in this old settled region, unless it be in the abundance of smooth limestone lying about or at hand, and hence the fences were not more than medium.

In tillage the great fight of this region is with intruders in the form of weeds, a legacy showing very conclusively that the children do suffer sometimes in consequence of the misdeeds of the fathers. Some mustard, some thistles, and some couch grass have been bequeathed to Mr. Wilmot: he is fighting them bravely, but till he overcomes, he cannot win in a sweep-takes contest in Ontario, where some of the competitors can say in this respect, with the old Roman, "I came, I saw, I conquered."

We failed to get a sleeper at Kingston till past midnight, nor was it easy to get a bed, this being Dominion Day. Sleeping in a station house is not pleasant, but it is a grand thing so to be able to sleep. This is one of the compensations allotted to the farmer in his toilsome lot. But midnight came at length, and with it the cars, and it was not so very long till Burlington was reached, when the trials of the night were soon forgotten.

### The Dairy.

Our friends will please bear in mind that they have it in their power to double our circulation at the present time, as the best season of the year is upon us for getting new names. ONE new name handed in by each present subscriber, and the work is done. The opportunity for getting names, afforded by the municipal meetings on nomination and voting days, will, we trust, be improved by our friends.

ONE almost wonders that from year to year so little improvement is made in farmer's butter. We cannot but seek for the reasons, for surely during recent years much light has been diffused regarding its manufacture, through the press and otherwise. The truth is, that very many of the butter makers—farmers' wives and daughters, do not post themselves on the subject at all. The wife follows the methods taught by her mother, and the daughters follow suit. Where the mind is bent upon improvement it invariably succeeds in the object of its attainment, but, where there is no desire for this, the case is a hopeless one. In years gone by, the good old dames of Friesland set their minds to the production of first-class butter, and they succeeded so well that they captured the London market. The Danes have given a large share of their attention to the production of butter of the first grade, and they have captured the same market. It is surely a worthy ambition for any maiden of the farm to try and make better butter than those who lived before her, and one that is quite possible to accomplish. We cannot have butter that will be uniformly good till it is made in creameries, and on the one plan, but we can have a quality of home made butter immensely superior to what is now produced, if the mothers and daughters of the farm are so minded.

### Summer Feed for Dairy Cows.

Unless provision is made for feeding cows in summer as regularly as in winter the objects of the dairy can never be fully realized. It is quite as much to the interest of the farmer that this should receive his earnest attention as it is to that of the individual running thea



creamery or factory, if not more so. The whole period covered by the succulent growth of fresh grasses is not more than three months at the longest, and those who are to succeed well in dairying, must be prepared to recognize this fact, and to make provision for it with unflinching regularity.

One who has hitherto been prominent in the creamery business in Ontario, assigns as a reason for withdrawing from it that the farmers do not make provision for their cattle in time of drought. He says, "At best the creameries run only about five months in the year, and three months of that is spoiled through poor pastures. Who would expect a man to remain in a business with only two months of it paying him in the year? Neglect on the part of the farmers in this matter does not only hurt the factory, but it leads to the erroneous idea that cows don't pay."

This provision, therefore, is a vital matter on the part of all farmers patronizing cheese or butter factories, nor is it one whit less important to those who make butter at home. Some argue that too many cows are kept, and that herein lies the chief source of the trouble. This we do not believe. It may be that too many cows are kept of a certain class, but not too many in the aggregate, for the great secret of keeping land nourished lies in stocking it to its full capacity. It is not that too many cows are kept, but that too little feed is grown, and usually it is not grown because it is not sown, or if sown, put in in a way so careless that but little is produced.

There is usually no difficulty in growing summer food for cows. Oats and vetches for this purpose will grow on any kind of soil that give a good crop of oats, and corn will do well on any soil that give a good yield of potatoes, and these are the two principal crops used in providing summer feed.

The terrible lesson of the past season as regards burned pastures will surely not be forgotten by the present generation of dairymen.

## Holland Cattle Herd Books.

### II.

(Continued from September.)

The initiative step for the advancement of Holland cattle was taken in America, though under an incorrect name. It was followed in Holland by the publication at Zwolle, in 1876, of the first volume of *Het Nederlandse Rundvee Stamboek* (The Netherland Cattle Herd Book), registering 15 bulls and 98 cows, including cross-bred animals having Shorthorn blood.

In this herd-book animals of various color are entered, black, white, red and white, mouse color and white, also black, *Lakenfeldische*, known as the Dutch Belted cattle in America.

No animal can be registered in this book unless a breeder. This, consequently, admits no calves, and renders obligatory the inspection, by officers of the association, of every individual registered. This is a good regulation, which excludes from registration "black sheep," so often found in good families.

A peculiarity of the method of registration in this book is that the kind of soil is stated on which each animal is raised; the animal's height, length, breadth and circumference, is given, besides the class and order of escutcheon, and the class of the animal, either beef form, milk form, or beef and milk form, or milk and beef form.

The tenth volume of this herd book appeared in 1885, containing 447 pages, carrying the number of cows to 2,355, and bulls to 330. A volume of this herd book appears each year, consequently many of them include but few animals. One weak feature of

this herd book, which renders it almost useless to an intelligent breeder, is that, with rare exceptions, one cannot, from the registration of an animal, discover its sire or dam, much less grand parents, or farther back. This omission robs the register of its vitality and chief usefulness.

In 1880 another herd book was published in the United States at Utica, N. Y., by the Dutch-Friesian Association, which was the outgrowth of an old grudge a Mr. J. E. Whiting (of whom it first purchased its stock) had against the Holstein Bree 'ers' Association, because the latter would not register all Mr. Whiting's stock. Those refused were not black and white.

Since about 95 per cent. of all the cattle in Holland are black and white, 10 others in America are considered pure. The Dutch Friesian Association (publishing its first herd book subsequently to Mr. Whiting's death) registered only black and white animals, by which course they approved the action of the Holstein Association in excluding some of Mr. Whiting's stock.

Mr. Whiting endeavored to establish a herd book entitled the "Registry of Thoroughbred Dutch Cattle," but his successor added the word Friesian, and by excluding all but black and white, virtually placed themselves on the same ground as the Holstein Ass'n.

As the aims and purposes of each of these associations were identical, the more liberal minded of both repeatedly endeavored to establish a union, which, by the narrow-minded, selfish interests of some member, was thwarted until 1885, when it was effected by those who, without any plausible reasons, had previously so bitterly opposed it.

The officers of the American Association of Breeders of *Thoroughbred Dutch Cattle* for the year 1880 and 1881 were president Samuel L. Hoxie; vice presidents, H. L. Brace, W. J. Beal, and C. R. Payne, Treasurer, A. F. Cole; Executive Committee, S. Burchard, Robert Burch, Irwin Langworthy; Secretary, S. Hoxie, Whitestown, N. Y.

The first volume of the Dutch Friesian Herd Book contains the constitution, by-laws, a description of the cattle by Prof. Hengerveld, of Holland, written in 1870, a scale of points for males and females, a treatise on Guenon's system of escutcheons, by Hazard, besides the main registry, with 44 males and 185 females, of which the records and measurements of many are given. In addition to this, in the same volume is an appendix registry of 19 males and 19 females.

The last volume of the Dutch Friesian Herd Book, is No. 4, published at Utica, in 1885, carrying the males in the "pedigree register" to 730, and females to 1937, and the main register (advanced register) of males to 62, and females to 324.

From the above it is seen that a comparatively small portion of registered animals had sufficient individual excellence to enter the charmed circle of the main register. Either the standard of main registry was placed too high, or the larger part of registered stock was inferior.

The bone and sinew of this association was composed of practical, earnest men, endeavoring to perfect this noble breed of cattle, and advance the interests of its breeders. They deserve the honor of establishing an advanced registry (called main registry in Vol. 4) in their herd book, based on actual milk and butter records.

DUDLEY MILLER.

(To be Continued.)

We trust that every friend and well-wisher of the Journal will send us at least one new subscriber along with his renewal for next year.

## Poultry.

### Poultry at Newport, England.

One of the most famous breeders of poultry in England is the Rev. W. J. Humberstone, of Newport. His favorites are the Dark and Light Brahmas, and Buff and Partridge Cochins. Mr. Humberstone has gained many prizes on these at the international English shows, and sends many very fine ones to Canada, the United States, Australia and New Zealand.

The following delicate operation was performed by Mr. Humberstone on a wounded hen, the success of which should encourage us to persevere in our efforts when appearances are discouraging. She had been exhibited at a distant show, and when first found by her owner some hours after her return, she lay insensible with her breast all gashed and lacerated, and the crop torn and bleeding, and hanging through the wound. "He drew the mangled ends together and carefully stitched them, nursing her with gentle patience for many days, and then had the gratification of seeing the wounds heal and the bird recover strength again. There is now hardly any trace left of the injury that she suffered, and she is the mother of some of the finest birds on the farm."

The writer from whence we quote relates a charming incident which carries a pleasant tale on the face of it. He speaks of a large flock of American bronze turkeys who kept aloof from their owner when strangers are at hand, but ran up to him with the utmost confidence when these had retired. The species of mesmerism by which this was accomplished, he answered, was "the mesmerism of kindness."

Yes, that is the best kind of mesmerism in dealing with all kinds of domesticated animal life. If it were only observed but universally the lot of these creatures committed to the care of man would be made much more comfortable than it is. It is the bounden duty of man who dragged animal life down with himself, to try and make it to cease to "groan," and as he himself becomes elevated, to lift it to a higher level of enjoyment.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

### Poultry Keeping.

BY A HARRINGTON, RUTHVEN, ONT.

(Continued from September.)

The season of the year has arrived when the average poultryman feels contented. The trials and vexations of spirit incident to hatching and rearing have become things of the past, and with surplus stock almost disposed of, houses snugly fitted up for the winter and ample supply of vegetables in the cellar, and stock in prime condition, he has but little need to grumble at this cold world.

We want to say something sometime of the pleasures connected with poultry-keeping, in fact, would like to do so now, but fear we could not do the matter justice, as things at present at the "Essex Poultry Farm" are far from being in a shapely condition. With 10 breeding houses 7 by 12 to line and fit up, a brooder house, 60 feet long but half finished; an incubator house to ceil and make frost-proof; 30 or 40 brooders, and 10 or 15 small brooder houses to build, besides attending to necessary regular work, we cannot feel exactly as we would like to; yet withal we find pleasure in the business, and shall be tempted after a while to say something on this point.

A few timely hints may not be amiss just now. In the spare moments sometimes found on a farm (we know there are some) clean out and whitewash the hen house thoroughly, hitch up the team and bring

In a big load of forest leaves, storing them away dry for future use; repair the windows, cover the cracks; make everything snug and comfortable, not forgetting ample ventilation, in your frantic desire to have everything right; place under cover a large load of gravel; lay up a goodly supply of vegetables; then, when the cold north-east blasts sweep everything before them, when the thermometer ranges around zero, and you are cowering around the fire or lying snug and warm in bed, no vision of frozen fowls with protest written in their cramped shape, and wildly staring eye will flit before you, no ghastly dreams will disturb your rest; all will be comfortable and happy. And when you gather day after day such quantities of eggs as you never could remember of having gathered during the cold months, you will ponder on things in general and particularly on Harrington's advice.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

### Poultry in Winter.

BY W. B. COCKBURN, ABERFOYLE, ONT.

There are none of the cereals raised in this country but have their uses as feed for poultry, and all the roots and vegetables, such as turnips, potatoes, carrots, beets, etc., when cooked or mixed with meal or bean, half and half each, are esteemed economical and healthful as fowl feed.

The fattening properties of some grains, and the undue allowance daily of hoiled potatoes and corn or wheat meal are excessive, however. And where the Asiatics only are kept, discretion must be exercised in dealing out these hearty kinds of aliments, inasmuch as it is neither healthful, economical or useful to stuff these birds with such feed.

The large breeds will very quickly become next to useless as layers, if indulged in overfeeding with these rich grains and succulent roots. Care must therefore be had to avoid this error, particularly along through the late fall and winter, when we are preparing them for the early spring laying.

If they get fat in cold weather, old hens will often gather this objectionable kind of flesh internally, and this directly interferes with their laying, while it harms the quality of the eggs which they do lay for future hatching. All our fowls should be well fed in cold weather. But the breeding stock must be cautiously managed in this particular, or their eggs will very frequently prove infertile from excessive cramming with these hearty sorts of food.

Keep a ready supply of oats and barley at hand for these birds, allowing them but little corn, and this crushed, and to be given at night only. Plenty of green vegetables will help them, steadily allowed all winter, such as cabbages, chopped turnips, etc., and if we avoid whole wheat, buckwheat, and whole corn for our breeders, they will do much better next spring, when we want their eggs for incubation.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

### That Grinding Mill.

BY J. W. BARTLETT, LAMBETH, ONT.

In the November issue of the JOURNAL is an article on the "Poultry Grinding Mill." Now, we are not of the non progressive class who will not believe anything they cannot see, neither are we prepared to accept all old foggy ideas as accurate, without they possess at least the semblance of rationality. Experience demonstrates the fact that fowls will live and thrive without gravel in the gizzard at all, if they are furnished with proper diet. We are of the opinion that it is the substance of which the stones are composed that is beneficial to the system, rather than the mechanical action,

and the smooth ground appearance they present is due to the action of the gizzard on the stones rather than that of the stones on the food.

Science has done much to enlighten mankind, but so far as we know, no scientist has thrown any light on this subject. Theorists have attempted it, and perhaps accomplished it, to their own satisfaction, but the fact stated above still remains, viz.: fowls will live and thrive without gravel, and if it were used to grind the food, they certainly would not, and if roller mills had been in use in the early days, it is not at all likely that the grinding theory would have ever been heard of.

### The Apiary.

AN article in the *Canada Bee Journal* of November 9th, dealing with the subject of overstocking, says: "How many bees may be kept profitably upon a given field is no more decided than the much debated one touching the profit of deep ploughing, and for the same reasons. Widely different reasons so affect the secretion of nectar that setting aside the very important question of management, the results of the season's work are in no wise conclusive as to the point at which any given locality is overstocked." The natural flora of a country must also have very much to do in the determining of this point. Where honey-producing plants and trees abound the grazing grounds are correspondingly rich. As with the comparative productions of soils so is it with these, one acre of good soil will produce more than a score of acres almost destitute of the elements of vegetation. The nature of the cultivation will also prove an important factor. Where much alsike clover is grown and pastures abound, much more honey may be produced from a given area, than where the land is nearly occupied with the growth of cereals. There is one element, however, that man cannot control, and that is the vicissitudes of season. In our view it is as easy to overstock a given area with bees as to overstock a farm with quadrupeds.

### Eighteenth Annual Convention of the North American Bee-keepers' Association.

The members of the above association convened at Chicago Nov. 16, 17 and 18, 1887, advantage being taken of the reduced rates obtainable during the Stock Show. There were from 80 to 100 members present. Several important subjects were brought up; one, which has received a good deal of discussion in bee papers during the last year, was, "Objects and Methods of a Thorough Organization of the Bee-keepers of America," by Thos. G. Newman, and a Revision of the Constitution and By-laws. The object was to have more united action by bee-keepers to regulate the prices of honey. "Legislation for Bee-keepers" was discussed. The object of this was to secure a right—by license or some other way—to a certain locality or district for bee-keepers, to prevent others from settling near him, to give him the benefit of any bee-pasturage he might put down, &c. Bee-keepers generally were against such legislation. "Bee-keeping Alone, or With Other Pursuits," was discussed. Some present were in favor of confining the business to the specialist, others that it should be combined with other pursuits, so that in a poor season such as the past, there would be a prospect of returns from other sources. Several spoke of the advisability of combining bee-keeping with dairying. Poultry raising was also advocated, also the raising of fruit, if

those fruits which ripen in the swarming season are left out, such as strawberries. Those present largely advocated that farmers or any one adapted to the business should keep bees. Teachers and clergymen had done much to advance bee-keeping, in fact as much as the specialist. "The Cost of Production of Honey" was brought up, and prices of production shown to vary from 2 cents per lb. to 50 cents per lb., the difference being due to locality, management and season. Toledo was selected for the next meeting. The Ontario Bee-keepers' Association will meet at Woodstock Jan. 10 and 11, 1888. Reduced railway rates can be secured by applying to the secretary, William Couse, Streetsville, Ont.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

### The Wintering of Bees and Other Matters.

BY R. F. HOLTERMANN, BRANTFORD, ONT.

The work from Germany upon the burying of bees did not reach me in time for the November issue. This is to be regretted, as I was in hopes that quite a number would experiment in this direction at once. As it is, there will be at least three experimenting during the coming winter, and the prospect of several more. D. Anguish, of Brantford, buries 5; S. Dickie, Brantford, 5; R. F. Holtermann, 7. All the colonies have been carefully weighed and an accurate report will be given in the spring.

The statement as given by J. C. Kanitz in his work upon bees and honey, in which he has experimented so largely, and of whom mention is made in the September number of this JOURNAL, is as follows:

"The less cold bees have in winter the less honey they will consume during winter, just as a person requires less fuel during a mild winter than during a severe one; then honey is fuel for the bee. In winter a bee maintains in her brood-chamber a temperature about 16 degrees above freezing. For the above reasons bury your bees weak and strong. The strong colonies will save much honey, and those having little honey will have, if buried, ample stores, when above ground they would have had only sufficient stores to do them until February. You can safely deliver your bees up to mother earth. In forty to fifty years I have experimented much with burying bees, and have by its means lost many a colony, until I have found out the proper method of wintering underground. If you wish to bury your bees, bury them as I direct, and exactly in the same manner. If you do not do this, but imagine you know of a better method which your mind may suggest, do not blame me if you fail. If everything is done properly the results are always good, be the soil sand or clay. A more proper name than burying would perhaps be pitting, as done with vegetables.

#### BURYING WITH BOARD COVERS.

When the indications are that we will soon have frost—before the first frost is the best time—I carry the bees to a piece of cultivated soil. A garden is best. I place them upon two strips of board twenty or thirty in a row, as space permits. Now I place on each side at a distance to clear the hive, posts, sloping and meeting at the top over the hive, where they are tied together. Upon these are laid boards making a sloping roof, but open at the top. There will then be an open space between the hives and the boards which form the roof, and at the top of the roof. The boards do not require to fit tightly. The top of the roof—that is, that part between the hive lids and peak of the roof—is filled with pea, vetch, flax straw, or such as may be preferred, filling all up level with the posts upon which the boards have been placed. Now over boards and all a layer of straw is placed to prevent any earth from falling into the inner chamber. Now all is covered with earth, which is dug from around the pit, and thus a drain is formed all about and from which the water can be taken, if necessary, at any time; and finally I place upon the peak of the mound a board to prevent any moisture from getting in. True, this is hardly necessary if everything has been done carefully. All are left until May in this position. The

entrances are left wide open and are only covered with a piece of wire cloth.

Strong colonies I put in an empty chamber (say a half story) underneath. This is done at the close of the honey season. Entrances should all be in one direction.

Benefits are . The bees are warm, in an even temperature, or at least a temperature which changes very slowly; they are dry, consume little, remain quiet, are secure from flying out too early in spring, and from robbing; they consume little honey, and during winter but few die in a colony, and enter the season strong in population.

#### BURYING WITHOUT BOARDS.

If you have many colonies to bury, according to the first method a great many old boards would be required, which can often not be secured readily. I have, with the aid of other bee keepers, who were friends of mine, established the fact that they can be buried without the use of boards, as with vegetables, and with the same good results. Do it as follows:

Upon ploughed land, cultivated, lay old boards; then place two rows of bees with entrances facing one another, and the hives so close together that the bottom boards touch one another. The entrances open but partially covered and bound about with wire cloth, so the bees can get out but no mice can get in. Now there will be only one space between the two rows. Over this space lay old boards so that nothing can fall into this space. Now pack straw above and about the double row so as to make all come to a sloping pit, and now cover all with earth, dug as before. Let all remain standing until spring. The bees will winter, be the soil sand or clay. The first method is, however, preferable, because during a wet winter, especially if the straw has not been packed firmly, water is liable to get in at the sides.

Mark all weak colonies in the fall so you can tell them in the spring. In carrying the bees from their pit to their stand, you will disturb them no matter how carefully it is done. If you want to avoid trouble place them in rows the evening before. It is well to remove the earth one day and then remove the straw the next clear fine day, doing so from one end as you take them out. Close the entrance whilst carrying with moist earth, and do so very carefully. Then when all the bees are upon their stands remove the earth from the entrances.

Bees aside from these methods may be packed in hay. The method is the same as burying. They may be covered over in a hay loft. The entrance of the strong ones only are kept from being covered by a board. Hay is packed below, along and above them. Mice here do no injury. The bees must, however, not be kept too warm."

### Horticultural.

It was formerly thought a good plan to stake trees when first planted out, by driving a stake into the ground firmly, and tying the tree to it. This laborious method is now generally discarded. It is considered much better to take some pains to secure a considerable amount of root, and reduce the top so that there will be but little tendency to blow over. Banking fall planted trees with two or three spade-fulls of earth has a good staying effect. When planted in the spring it is well to keep an eye to them occasionally, placing those in position that have blown to one side, and compressing the earth firmly against them.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

#### Specialists in Fruit Growing.

BY E. D. SMITH, WINONA

Your article last month struck me as being very pertinent. I quite agree with you. It is extremely desirable for every family to have an abundance of fruit, home grown, when it is cheaper to grow than to buy, but plenty of fruit, anyway. And again, it is not advisable to attempt growing fruit for sale on a grain farm. Either the fruit or the grain is likely to be neglected. Each year I become more convinced of the wisdom of specialties in farming. A factory mak-

ing all the different parts of a machine cannot compete with one that makes only parts of similar constructions, buying other parts from other factories; neither can a farmer find time to properly oversee a too diversified system of farming, nor can he grow diversified crops as cheaply as the specialist, one reason being that more machinery and buildings are required on a given area of land for diversified farming than for special. Then, too, some soils and some climates are suitable for grapes, others for apples, and others for corn, oats or clover, and I would strongly advise anyone thinking of embarking in the fruit business, to study well the conditions of these as to their suitability, before investing money in the enterprise. I did not do so myself, and have had many a costly lesson, which I would have my friends to learn at less expense. Competition has now come to be so keen that there is little money in haphazard planting. About the time I started prices were so much higher than at present, that money could be made almost anywhere. But the good old times are past and gone, and they flitted quickly, as they must always do under such circumstances. It may be taken as a general rule, that when anything pays well, it will soon pay ill, except to the favored few. And the favored few are those who either by chance or foresight selected the proper conditions of cheap production. There is soil and climate as suitable for the production of apples, and practically as convenient to market, that can be bought for from \$40 to \$60 per acre, as that which would cost \$400 per acre, hence I consider it folly for the man with land of high value to attempt competition in apples. We hear a great deal about apples being unprofitable, and it almost invariably comes from men who have either unsuitable land, or land which, though it yields good crops, will not yield what it ought to do, to pay a proper interest on its value. Land near the cities suitable for truck farming, is often occupied with apple orchards, and produces no more apples per acre, and the apples bring no more money per barrel than apples grown 100 miles from the city. Apples can be successfully grown over such a wide extent of territory that the time is past when the man can make money growing them on land worth \$400 per acre; it has also passed when they can be grown profitably without good care and attention proper drainage, proper fertilizers, proper training, proper warfare with insects, etc., but the time is still present when under proper conditions of cheap land and good management, much more money can be made from them than from grain or stock, or other fruits under similar conditions of soil or climate. I know a gentleman who annually sells more value in apples from some broken mountainside, that is too rugged to cultivate, than he does in grain from any similar number of acres on his farm; and still another one who does the same with his 100 trees upon good arable land. But the land of the former is worth nothing for grain and would have a natural market value of perhaps \$20 per acre. His crops of apples are ahead of anything I have seen. How can the man compete with him who should credit his land with an annual rental of \$20?

Raspberries grow wild in large quantities. If cultivated raspberries come in competition with them, in the nature of things they cannot pay, so only the man who has soil and climate suitable to grow raspberries in years when wild ones fail from severe winters or drouth, or other causes, can hope to make raspberries pay. The raspberry, grown to be successful, must grow a good crop when wild ones fail, or else a crop that will pay in spite of wild ones, on account of its earliness, or the size or quality of the berry, or the im-

mense yield, that will enable him to sell at a profit at a very low price. To secure these conditions, it will not do to plant haphazard upon any soil or in any condition as to heat or cold. He must have a sheltered place, or a very hardy variety to live through winters that will kill wild ones. He must have a soil that will yield a good crop in spite of drouth or excessive wet (and such soils are scarce), or an extra early piece of land, or an extra productive piece.

Strawberries have come to be so universally grown that the price rules very low in years when there are even fair crops, so to make money, one must needs have exceptional conditions as to earliness, or sometimes lateness, but more especially as to exemption from spring frosts, and as to adaptability of soil to produce large crops. I think strawberries still pay well if properly managed, so, on the whole, I say to any one having the "fruit fever," study well the conditions of soil and climate, commence on a small scale at first, devote your whole energies to the one branch, and you can make money from fruit yet. Everything nearly is cheap. I do not know that fruit is much cheaper relatively than other things, but I firmly believe in special farming. I believe, even in fruit, it would pay a man better to grow all apples, if his farm is suitable, all through, than to grow part apples, and part plums or grapes. But every farmer should have plenty of fruit for his own use, more fruit, less pork. "The fruit grown does more than the doctor to bankrupt the gravedigger."

### The Home.

#### The Little Heroine.

The little child of very tender years, as yet unable to walk, looked very delicate, yet she seemed happy and played away with everything that came within her reach, oblivious of the dismal dark afternoon rain that was falling drearily without, and making everybody at Myrtle station, on the C. P. R., wish that the iron horse would hurry to bear them away from, they scarcely knew what, except it be from a feeling of deariness, a thing impossible for a railway engine, and therefore unreasonable to expect of it. Those minor weights that freight us down are not much affected by locality, and if we lay them aside it must be through the aid of a power that comes not from beneath or around us. The father of the child walked to and fro in the station house with an air of half abstraction, as though his thoughts were far away. It may be he was trying to get a glimpse of that land which is peopled by immortals, to get one more view of that more than other self, which had been the fountain of so much of his comfort during recent years, but whom a few months ago he had been called upon to lay all that was mortal of her beneath the cold clods of the valley, there to rest till awakened by the voices of eternal spring. Our little heroine sat beside the delicate little child and watched its every movement with a maternal solicitude, and manifested more than a mother's demonstrations of pleasure at the many little amusements that the child was really creating for itself out of the scant materials of the surroundings. She was a lively little maiden of tender years, having seen the sunshine of but ten or twelve summers, and now her life was realizing what the sternness of winter meant at so early an age. When her own mother and that of her infant sister and of two intermediate members of the same little fold, kissed them for the last time, and folded her arms for the last sleep, she had determined, young as she was, to be a mother to her juniors, and right bravely was she trying to discharge her duty.

A gentleman sitting at hand, who apparently knew all the circumstances of the family, said to our little woman as he surveyed their clean habiliments and smiling faces, "You are doing well, my little girl, you are doing well; you deserve great credit for your attention to those children. Your little charge there," he continued, pointing to the youngest, "is doing wonderfully well." A little crimson flushed her cheek, such as can only adorn the cheek of maiden, as she modestly replied, "I am doing the best I can, sir, but this child does miss her mother much, although she seems forgetting it now." And she adjusted the garments of the little one as she spoke.

There is an innocence in childhood that is always very pleasing, and this it is which surrounds it with a wall of protection without which it would, it may be, be crushed out in the stern struggle of existence. This innocence is one of its loveliest features, and to what extent its possession has made childhood the teacher of manhood, the great assize will only fully make known. But we only look for childish ways from children, and when we behold the ways of men and women practiced by those of tender years, we view them with apprehension. Why, we can scarcely tell. We know that rapid torrents are the earliest to dry, and plants that rush to maturity are the soonest to die; and so, when we behold precocity in children we are apprehensive that the sands are running too rapidly out of the glass of time. Those of us who have reached mature years, and are able to contrast its burdens with the lightness and merriment of childhood, cannot help a feeling of sadness when we behold a youth without a childhood, and a maternity without a youth. Yet so it is sometimes in life. The reasons for it are doubtless wise, although we may not read them yet, and under that government where compensations abound, it may be that eternal youth will be more enjoyable to those whose early burdens have permitted them to taste of youth so sparingly in time.

But whether or no, we gazed with an unusual admiration on our little heroine, although she knew it not. We do not know her name, although it is known so well to the King of kings, and is transcribed on the great book of the palace in characters that can never be blotted out. We looked without and saw nothing but the dark clouds and the big rain drops, which seemed to race as to which would reach the fields of Pickering first, and yet we feel quite sure there were "angels hovering around," a thought which, it may be, never entered the mind of our little lady, whose great heart of love, too large for her little bosom, was absorbed in the welfare of these children.

The whistle blew, and the train came thundering by, and we were separated, never, it may be, to meet again in this life. The winter will pass and the summer will come, and the younger members of that household will play with the kittens under the shade of the pine trees that protect the dwelling, but not so of this little woman: she has no time for that. Her life is being poured out like wine, an oblation for their good. At the dedication of the great temple the great king offered "two and twenty thousand oxen, and an hundred and twenty thousand sheep," but this little girl brought more, she brought the offering of her life.

And shall it not be accepted? Yea, it has been accepted long ago. Amid the discharge of the many duties of that home, our little heroine has a strange peace for which she herself can scarcely give a reason. And this even here more than compensates for the deprivation arising from the non-enjoying of the usual happiness of youth.

And then when the great day shall come, and the awards shall be over, and the list shall be sought of those worthies whom the King shall "delight to honor," can we not believe that the name of this youthful heroine will be present on the scroll. It was written long ago, "Give and it shall be given unto you, good measure, pressed down, and shaken together, and running over, shall men give into your bosom," and we know that if men shall deal thus with one another, how much more shall our Father in heaven deal thus with his children.

### Jottings.

**Stewart's Book on Feeding Animals.**—"I am captivated by Stewart's book on feeding animals. Everybody that owns a beast should get a copy and read it."—Jas. Findlay, Beachburg, Ont.

**Agents Wanted.**—In every locality in Canada to canvass for the CANADIAN LIVE-STOCK AND FARM JOURNAL. Good salary to good men. Sample copies free. Write for particulars to the STOCK JOURNAL Co., Hamilton, Ont.

**A Good Paper.**—"We take pleasure in asking the attention of our readers to the advertisement of the *Ohio Farmer* which appears on page 697 of this paper. It is one of the best agricultural, horticultural, live-stock and family journals published.

**Fruits of Advertising.**—"Through advertising in your Journal I have sold a number of Suffolk and Berkshire pigs in Ontario, Quebec and Manitoba. I find a very large and increasing enquiry for the Suffolks this last year."—F. J. Ramsay, Dunville, Ont.

**Wool Statistics in the United States.**—"The number of sheep in the United States in 1849, was 19,000,000; in 1884, 31,000,000, and in 1887, 40,000,000. The decline in the numbers is attributed to the decline in the price of wool. The value of the wool clip of 1887 was \$70,000,000.

**Correction.**—In Provincial prize list, which appeared in November issue in the Ayrshire class in aged cows, the second prize is credited to T. G. Nankin, Ottawa, while it should have been James Drummond, Petite Côte, Que.; and in the herd prize it should read, Thos. Guy, Oshawa, and not W. M. & J. C. Smith, Fairfield Plains.

**Canvasser Wanted.**—"If any of our readers, not having time themselves, know any person in their neighborhood likely to devote a little time in getting us a few subscribers or even in forming a club for next year, we shall esteem it a favor if they will kindly send us his name and address, when we will send them sample copies, etc., for the purpose.

**Names Lost.**—"To our very great regret one of our agents lost a book with a list of names of new subscribers taken at the Toronto exhibition. Any one who can put the parties who thus subscribed in the way of our address, will confer a great favor, as we are anxious to make all the amends in our power to those who are thus being wronged through no fault of ours.

**Business Cards.**—"Even if a breeder has nothing to sell, the publication of his "card" is of use to him. It keeps the name of his herd and his own name before the public. It is virtually an invitation to any one interested to call and examine the breeding stock, and when he has stock to dispose of he will find that they are not strangers to the buying public."—*The Guernsey Breeder*.

**Personal.**—"Mr. John Dimon, who in 1886 favored us with a very interesting series of articles on the Morgan Horse, true to his instincts, has opened a live-stock sale and purchasing agency for horses of all classes and all kinds of domestic animals, at 25 Adelaide st., Detroit, Mich. Mr. Dimon does love a good horse, and his long experience in handling them preeminently qualifies him for the work.

**Egg Production.**—"It is estimated that the egg production of Great Britain is 2,500,000,000 doz. per annum, that of France is from 8,000,000,000 to 10,000,000,000 doz. The importation of eggs into Great Britain in 1886, was 2,034,000,000 doz., and this year it is estimated at 1,200,000,000 doz. bought at a cost to the consumers of £2,300,000. Enormous as this consumption may appear it allows no more than 100 eggs to each person per annum, to say nothing of those used in the arts.

**Breeders' Directory.**—"There are scores of stockmen in various districts who we believe would find it would pay them well to have a card of two or three lines in the BREEDERS' DIRECTORY. Oftentimes their stock is superior, but being known only to their immediate neighbors, they have little chance of getting full value when placed in the market; whereas a card would bring it to the notice of thousands of readers throughout Canada and the United States. The cost is only \$1.50 per line per annum.

**Butter Making in Winter.**—"Major H. E. Alvord, in a recent number of the *Boston Cultivator*, who has for some years past had charge of a large butter-making herd, states that cows of like age and breeding which calved in September and October, have given from 800 to 1,000 lbs. of milk more per year than those which were fresh in the spring. He also found that the milk was so much richer than that obtained from the succulent pasturage of spring and early summer, that from one to two quarts less of it were required to make a pound of butter.

**A Handsome Prize.**—"We have been favored with a view of the handsome gold medal won by Mr. Andrew Hood, Scarborough, at the Dominion ploughing match, recently held at Hochelaga, P. Q. It bears the appropriate device upon its face of a ploughman and his team at work, within a circle made up of the national emblems, the rose, thistle, shamrock and maple leaf, and on the other side the following engraving: Presented by Hugh Paton, Esq., M. F. H., for the two best ridges ploughed in a given time, open to all ploughmen in the Dominion of Canada Held at Hochelaga, Oct. 26th. Won by Andrew Hood. There is also a tablet attached by whiffletree and clevice, which bears upon its face a sheaf of grain in the real sense of the terra goldum.

**Pleuro-Pneumonia.**—"It has been officially declared that pleuro-pneumonia does not exist any longer west of the Alleghany mountains. It is a striking instance of what may be accomplished in this line by the adoption of prompt measures. From the addresses of Col. Norman J. Colman, U. S. Commissioner of Agriculture, delivered at the meeting of the Consolidated Cattle Growers' Association, held at Kansas City, on Oct. 31st, we learn that since the first of January last, the number of animals slaughtered was 7,741 head, of which 1,572 were affected with contagious pleuro-pneumonia. In his own State, Missouri, one diseased Jersey bull introduced had cost the State \$1,000,000, and in Kentucky before it was eradicated, it had cost the cattle men \$2,000,000. He eulogized our Canadian Government for the prompt measures taken by it when the disease reached our quarantine, in slaughtering all the animals and burning the buildings.

**Insects on Domestic Animals.**—"EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL, SIR.—I noticed in the last issue of the JOURNAL an article, inviting someone, for humanity's sake if nothing else, to prescribe a sure and safe remedy for insects on domestic animals. The subject is one that should deeply interest those who have the care of live-stock, as the presence of lice in stables and houses involves a great waste of food, lack of thrift and condition, as well as a tormenting annoyance to the sufferers. Therefore, without solicitation on the part of anyone interested, I gladly avail myself of this opportunity to add my testimony, after two years' experience on horses, cattle, sheep, hens and dogs, to the never failing merits of an insect powder manufactured in Halifax, N. S., by Prof. C. G. Frasier. It is conveniently put up in perforated tin boxes—not expensive; perfectly safe, and a dead shot when properly applied. Would strongly recommend the above powder, as I have made sufficient test to fully establish in my mind, that it is an effectual cure for all parasites, such as infest our stock, usually in the fall and winter seasons. Should you think the above worthy a place in the JOURNAL, you have my permission to insert it over my signature."—Allan McQuair, Sherbrooke, N.S., Nov. 18th, 1887.

**The Concise Imperial Dictionary.**—"The Concise Imperial Dictionary, a copy of which has been forwarded to us by the publishers of the American edition, Messrs. J. E. Byrant & Co., Toronto, Ont., is the latest dictionary published, having been completed during the closing months of 1886. It is a summarized condensation of what is most important in the four volumes of the new Imperial Dictionary completed in the year 1882, and by the same author, Mr. Chas. Annandale, M.A., whose fame as a lexicographer will endure. Language is equally liable with people to constant mutations, hence a newly compiled dictionary, other things being equal, must always have a great advantage over old ones. It is a handsomely bound volume of 816 pages, of 3 columns to a page, printed in fine, neat type, on beautiful light paper, and therefore contains an immense amount of matter for the size of the book, considering which, its price—\$4—is very cheap. The work of condensation has been

greatly facilitated by the method adopted by grouping words, and their compounds and derivatives under the word that forms their first element. For example under the term, "MID," after its derivation and meaning, we find the words, "mid-air," "mid-channel," "mid-day," "mid-heaven," "mid-land," "mid-leg," "mid-lent," "mid-most," and nearly a dozen other compounds, with an explicit pronunciation and meaning given of each term. Verbal aggregates and compound phrases receive special attention. The preface is followed with hints on etymology, a list of prefixes and suffixes, and a chapter on pronunciation. The method adopted is that of writing the word in a different form. The appendix contains a pronouncing vocabulary of Greek, Latin, Scriptural and other ancient names, modern geographical and modern biographical names, words, phrases and noteworthy sayings, from other languages met with in current English, and a list of abbreviations and contractions commonly used in printing and writing. The book will be invaluable to students, editors and writers, who require a dictionary at hand, with so little of the ponderous about it, that reference to it will be a pleasure, rather than a task from which one shrinks, and for families who do not care to go to the expense of procuring those ponderous old standards now getting somewhat old-fashioned, it is particularly well adapted, as its moderate price brings it within the reach of all, and its simplicity of arrangement rather draws than repels the younger inmates in search of definitions in the preparation of school lessons.

**The New Model Disc Harrow.**—In a former issue we called attention to this harrow and the good work that it was likely to do. We now learn from the *Morrisburg Courier*, of Nov. 18th, that although this harrow has been but one year introduced, no less than 400 "New Models" were sold, and that the firm, Messrs. J. F. Millar & Son, of Morrisburg, Ont., intend building one thousand for next year's trade. These disc harrows are little wonders in the line of cultivation. They work mainly on the principle of rotary traction, which gives them a great advantage in draught, in proportion to the work done. —See advertisement.

**The St. Catharines Business College.**—Any person who contemplates taking a commercial course in January should by all means send to the St. Catharines Business College for a catalogue. This college is doing good work, and is in a prosperous condition.

**The Illustrated London News.**—The issue of Nov. 26, *Illustrated London News*, (American reprint), contains a wide variety of reading, besides the finely and spirited illustrations, *Effects of the Storm on the Mersey* on Nov. 1st, *Horse and Bicycle contest at the Agricultural Hall, Prince of Wales in London and Cornwall*, and a fine *Picture of Jenny Lind*, (Madam Lind Goldschmidt). The price remains the same as usual, at ten cents for the complete number. Office of publication, Potter Building, New York.

**Premium Offers for 1888.**—We would remind our readers of the valuable offers made by us to those securing new subscribers. Those who take advantage of them will find their time very profitably employed.

**The Fat Stock Show.**—The Fat Stock Show will be held in Toronto Dec. 13th to 15th, at Grant's repository on Adelaide st. We hope there will be a large attendance. Arrangements are being made with the railroad companies to carry passengers and stock at a reduced fare. Our young men should be present in large numbers to profit by this great object lesson as to the results of judicious feeding. Fathers should not grudge them a day or two where they have the desire to come.

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**FARMERS' INSTITUTES.**

The Secretary, President, or any member of any Farmers' Institute is hereby invited to send for copies of the Journal (which will be mailed free), to distribute amongst its members with the view of forming clubs for the Journal—a list of ten subscribers, at least, could be got at every institute in Canada. Clubs of three for \$2.55; clubs of five for \$4.00; clubs of seven for \$5.25; and clubs of ten for \$7.50—an extra copy going to the person getting up a club of ten.

**Stock Notes.**

**Horses.**

Mr W. Russell, Unionville, Ont., has just imported a two-year-old Clydesdale filly, two one-year-old colts and two foals. They were purchased from Mr. S. Campbell jr., Tofthills. One of the yearlings is sired by the 400 guinea horse Darnley King, and out of a Topspan mare. The two-year-old filly is of Shetland breeding and after Iron Tam. The one-year filly is by Rob Roy, and the two foals by Pointsmen and.

We call attention to the advertisement of Messrs. Percy & Young, Bowmanville, Ont., in this issue. Those gentlemen have kept stallions for service for eleven years, and have also imported, more especially during recent years. Amongst their selections have been the stallions Crown Imperial and Manfred (1758), horses famous in Canadian show-rings and as stock-getters. Manfred has had few equals either in pedigree or in individual merit. Foaled in May, 1879, and sired by Kier (1167), by Newstead (559), by Byron 203, by Lofty 458, he traces to Thompson's black horse (335), foaled about 1810. Newstead (559) was a first prize winner at the Highland Agr'l Society's show, and on the dam's side is a brother to the illustrious Darnley. His dam was Lily, by Drew's Prince of Wales (673). In the fact that this firm have handled such horses as those just described, we have a pretty sure guarantee of the reliability of their judgment. For the particulars of the shipment of 1887, see their advertisement. The stables are healthfully and pleasantly situated, and the firm propose to extend their operations in this line from year to year.

Mr. Robert Ness, of Woodside Farm, Howick, P. Q., writes thus under the date of Nov. 16th. "I intended writing you some time ago but expect it may be in time for Dec. number. At the time I saw you at Ottawa, I had only one stallion dead, but Marathon died after, also the two-year-old filly Maid of Erskine, making three altogether lost through the Sherbrooke fire. I had a very successful trip this last season, and just after getting home all right, to meet with this misfortune takes the cream off the business. However there is no use in crying over it, but persevere on. I imported 14 head of Clydesdales and 5 Shetlands, one 4 year, one three, five two, four yearlings, three yearling fillies. The four-year-old Golden Guinea by Sovereign, was in the short leet at the Feb. Stallion Show, Glasgow; the three-year-old Laird o' Balfary was also in the short leet last year, and is now the best horse I have. Five two-year-olds (1) Bruchag, by McLean, he by McGregor, (2) Fullwood Prince, by Harold; (3) Duke of Brandon, by Knight of Snowdon; dam by Prince of Wales; (4) Royal Gem, by Crown Jewel; (5) Prince of Woodside, a grandson of Prince of Wales, dam by Justice; four yearlings by the McMaster, What Care I, Braso and King of the Forest; 3 fillies by Clyde (2023), Cock of the Walk (3529), and Laird Craford (3747). I had entered for Ottawa, but after my experience at Sherbrooke, I could not think to show there. I have sold four, three two-year-olds and one yearling. Bruchag, the unbeaten two-year-old, has gone to Mr. Keith Gordon, of Havelock P.O. The same gentleman has also got two very fine mares from me. Imported last season. Duke of Brandon, a very fine colt and a cup winner in Scotland, goes to Mr. John Hay, of Lachute; Royal Gem has gone to the county of Glengarry. Mr. Wm. Sheill's Brave Lad, the prize winner at Quebec and Sherbrooke, goes to the county of Huntingdon, to Mr. Malcolm McNaughton. I have still six stallions and their fillies on hand and all looking very well, especially the Laird o' Balfary, considered by competent judges to be the best three-year-old in Canada. Marathon had a fine lot of foals this season; they are eagerly sought after and any that are sold are at fancy prices; all low set and promising lots of bone and good quality of hair. Your Journal is greatly in favor here and deservedly so; every farmer should have it. We have had a little fall of snow but scarce of water yet; the fields are very bare this fall; ploughing is well advanced here, dry ploughing tells."

**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, 13c. per line each insertion; for one year, 10c. per line each insertion. Cards in *Irregulars' 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.

**GEORGE THOMSON**, Bright, Ont., breeder of pure Scotch Shorthorns and Southdown sheep. *Best Stock for sale.*

**FOR SALE**—SOME CHOICE CHESTER WHITE Young Pigs, ready to ship now. Prices low. Apply to **DANIEL DRICOURCV**, Bomholm P. O., Perth Co., Ont.

**FOR SALE** Pure Plymouth Rock cockerels and pullets, of the famous Pilgrim strain. **Thomas Shaw**, Woodburn P.O., Wentworth Co., 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 **D. ALEXANDER**, Bridgen, 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-1f OR, STANFORD & ROLPH**, Markham, Ont.

**FOR SALE** Berkshire Sows and Boars, 12 crosses pure blood and rightly marked—Sept and Oct. litters. Pedigree exceptionally good. Prices moderate. **Thomas Shaw**, Woodburn P. O., Wentworth Co., Ont.

**2 GRADE PERCHERON STALLIONS** 2 years old, for sale reasonable. **WESLEY FARRIER & SONS**, St. Helens P. O., Huron Co., Ont. nov-2

**FOR SALE**

**THREE YOUNG SHORTHORN BULLS** First-class animals, colors and pedigrees. They will be sold on reasonable terms. For further particulars apply to **W. J. BIGGINS**, Elmhurst Farm, Clinton, Ont. nov-2

**FOR SALE.**

**THE AYRSHIRE BULL COMET**, 3 years old, and two Ayrshire Bull Calves, 6 months old, also a Jersey Bull calf, 4 months old, by Mr. Fuller's Canada's John Bull, the best Jersey Bull in the world. **E. W. WARE**, Burlington, Ont. nov-2

**FOR SALE** The pure Shorthorn bull calf, "The Gem of Riverside," red in color, and weighing 1,000 lbs. at 11 mos., including 1 month of travelling about at the fairs. He was sired by the Mantlini Booth Sunnyside-bred bull, British Sovereign, a grandson of the great Sir Simeon, and out of the best show cow in the herd. In every respect a stylish and beautiful calf. Also bull calves of different ages, cows and heifers. **THOMAS SHAW**, Woodburn P. O., Co. Wentworth, Ont.

**FOR SALE.**

**TWO IMPORTED HORSES.** One Cleveland Bay, 3 years old, weighs 1470 lbs., 16 hands high; winner of 3 first prizes and 1 silver medal. One Clydesdale, 2 years old, weighs 1580 lbs., 16½ 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. Correspondence answered by sending 2 cent stamps. Address, **MAJOR THOS. HODGSON**, Port Perry, Ont. oct-3

**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, 26 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.

### IMPORTANT AUCTION SALE

22 Pure Bred Shorthorns, 10 Grades, 12 Horses, 40 Sheep, 12 Berkshires, Etc.

Having decided to retire from farming, I will sell by Auction, On Wednesday, 21st December,

The whole of my **Stock, Implements, Wheat, Roots, Etc., Etc.** Cows were purchased by me since formation of Dominion Herd Book for the foundation of a herd, and have never been fed for show purposes; and are all in a good healthy breeding condition. This is an opportunity that is not likely to occur again, for any one to start or increase their herd. Trains leaving London, Toronto, Buffalo, Tilsonburgh and intermediate station morning of sale stop at the farm at 11 a.m., also stops in evening to take on visitors to return. For catalogues, apply to

**JOHN BALLACHEY,**  
Nov-2 Brantford, Ont.

### SALE OF DURHAM CATTLE

WE WILL SELL BY

### PUBLIC AUCTION

On the 25th January, 1888

About twenty five Durham Cattle—five of them bull calves—first-class animals and pedigrees. Full particulars will appear in January number of this Journal. Catalogues will be ready in due time. **WM. LANG & HUGH THOMSON,**  
dec-1 Drawer D, St. Marys P. O., Ont.

### Fifth Annual Provincial

### FAT STOCK SHOW,

TO BE HELD IN

The City of Toronto, at Grand's Repository, on Adelaide Street, on

December 13th, 14th and 15th, 1887.

Under the auspices of the Agricultural and Arts Association of Ontario, and a Committee from Toronto.

Cattle to be in the building on the afternoon of Tuesday, December, 13th.

The Prize Lists will be issued immediately. Special arrangements will be made with the R. R. Companies to carry passengers and stock at reduced rates. Each prize list will contain a R. R. certificate for this purpose.

T. C. SNELL, President. HENRY WADE, Secretary,  
TORONTO, ONT.

### GREAT SALE

-AT-

Elmira, Waterloo Co., Canada,

10 miles north of Waterloo, G. T. R. Station and 9 miles south, of Alma G. T. R., Western Division,

ON FRIDAY, DEC. 16TH, 1887.

30 HEAD OF

### Pure-Bred Shorthorns

CONSISTING OF YOUNG BULLS, COWS AND HEIFERS.

Many of the animals are of the Beauty and Lady Day importation, the same as Oscar, who won the Sweepstakes at the Iowa State Fair for best bull, any age, and Byron Waraby, who stood at the head of the Bow Park herd and won the grand sweepstakes at Iowa State Fair, and at the Minnesota and Dakota Fairs. This year's calves are got by Young Strathallan, dam Rose of Strathallan, who won the sweepstakes two years in succession in Canada for best female, any age. A sister of Young Strathallan was sold for \$1400 to Mr. Cargill, M.P.P.

The Entire Herd will be Sold Without Reserve.  
Catalogue in due time. **HENRY GROFF,**  
ELMIRA P. O., ONT.

### Dairyman's Association of Western Ontario.

THE Annual Convention of the above Association will be held in the Town of Listowel on the 11th, 12th and 13th days of January next. Dairymen, and all interested in dairy products are urgently invited to attend. Parties attending the convention are advised to purchase return tickets, as the Committee have heretofore failed to make any satisfactory arrangements with the railway companies for a reduction of fares. By order,

C. E. CHADWICK,

Secretary's Office,  
Ingersoll, Dec. 1, 1887.

Secretary.

### Shorthorns.

Mr. F. Birdsell, Birdsell, Ont., reports the birth on Oct. 20th of a c., Belle of Bellevue, out of the cow Blanch, and by the sire Inkerman, imp. The calf weighed 75 lbs. at birth.

Messrs Green Bros., Innerkip, write us with instructions to change their advertisement, as they have sold their entire herd of Herefords, and intend devoting their whole attention to Shorthorns and Shire horses.

Mr. Pat. Young, of Rockfield farm, Gould, P. Q., is now the owner of the Shorthorn bull Lord Aberdeen, for several years stock bull in the Hillhurst herd of the Hon M. H. Cochrane. He was purchased by Mr. Young in August last.

Messrs. S. Barclay & Son, Dale, Ont., report the birth of a bull-calf, red and a little white, dropped Nov. 15th, 1887; got by Oxford, bred by S. Campbell, Kinellar, and imported by A. Johnston, Greenwood, Ont., dam Emmaline, by Champion.

Mr. F. C. Sibbald, of The Briers, Sutton West, Ont., has added another fine lot of pure Shorthorns to his herd, which now numbers 50 head, from that of Mr. J. R. Bouchier. These are to take the place of the grades sold off, which Mr. S. states that he found unprofitable.

The three two-year-old heifers bought by Mr. Joseph Redmond, Peterborough, Ont., at the Burnside dispersion sale in 1886, and which could not be shipped at the time owing to quarantine restrictions, have arrived at Quebec. They have each produced a calf since that time, although one of them unfortunately has been lost.

The Shorthorn herd of Mr. F. W. Charteris, Chatham, Ont., is making good progress. The cow Camden Belle the 6th, dropped a bull-calf on the 7th Nov., mainly red in color, which makes the sixth male in succession from her. Lady Janthe has also dropped the second bull-calf, and it is a red man. Both are sired by Crown Prince. There are at present three young bulls for sale in the herd.

Mr. James Graham, of Spring Water Farm, Port Perry, Ont., reports the following births in November in his Shorthorn herd: Nov. 2d, c. c. red and little white; dam, Sally. Nov. 10th, b. c., red; dam, Marilla. Nov. 10th, b. c., red and little white; dam, Kate Henry. Nov. 11th, c. c., red; dam, Victoria. Nov. 12th, b. c., red; dam, Ellen Mar. Nov. 21st, b. c., red; dam, Kate. All sired by the bull Prince Victor 5th.

The following births and deaths have occurred in the herd of Messrs. John Cousins & Sons, Buena Vista Farm, Harrison, Ont., since the middle of August. Duchess of Rockingham, red; calved Aug. 20th, 1887; sire, Sampson; dam, Maid of the Mist. Lady Rockingham, red and a little white; calved Nov. 10th, 1887; sire, Sampson; dam, Lady Duffern. The bull Sampson has been sold to the shambles. Purchaser, Wm. Lunan, Esq., Toronto; sold for English market; bought of Henry Hammond, Canisville; calved 14th February, 1884; prize-taker at Paris, Harrison and Clifford, as a two-year-old and three-year-old; was the stock bull; good stock getter; his get were mostly females.

Mr. H. K. Fairbairn, of Theford, Boanquet Tp., Ont., mentions that his Shorthorns are in fine condition, notwithstanding the shortness of the pasture. The cow 5th Maid of Sylvan, bred by the owner, dropped a fine heifer calf a few days ago, got by imp. Warrior of the Sylvan herd of the Messrs. R. & S. Nicholson. Mr. F. owns a three-year-old bull which has done excellent service in his grade herd. He is red in color, and weighs in moderate flesh 2300 lbs., and sired by Prince Albert, formerly the chief of the Sylvan herd, and out of the dam Venus, by Prince Royal. Another, a yearling heifer, a full sister to a London prize-winner in 1885, is a fine one. The herd numbers four head, all registered in the D. S. H. H.

Mr. Arthur Johnston, of Greenwood, advises us that his recent shipment of Scotch Shorthorns arrived in quarantine after an exceedingly rough passage of 14 days. They are all quite healthy and thriving though the trip has greatly reduced their condition. They are expected home from quarantine about the last week in January, when he will be very glad to have his friends and customers come and see them. He says, "I will not indulge in any boasting about them but let them speak for themselves, which I think they are likely to do effectively some day. Stock doing well, though they came in thin. My home-bred bull-calfs are the largest and best lot I ever had. The herd will number over 70 by the time the recent importation reaches home, including 11 imp. bulls, and 11 home-bred bulls, all fit for service the coming season."

Messrs John Isaac, Markham, Ont., and James Russell, Richmond Hill, have recently made an importation of cattle from the herd of Mr. S. Campbell, Kinellar, Scotland, consisting of seven bulls and twelve heifers. Of the bulls, those of the Rosebud, Bessie, Jasmine, and Mary strains, are the best, being principally red in color, thick in body and standing on short feet. They are sired by Gravesend. The females include the Urie, Mina, Miss Ramden, Jenny Lind and other families. The two-year-old heifer Royal Princess, first at the Highland Society Show as a yearling, and this year at Aberdeen, is one of the best of the lot. A stylish roan, Miss Ramden, heifer-calf, is much admired, and a Mina, a low-set, thick, good one, is amongst the best. The shipment has reached Quebec safely and sometime in January will arrive at their destination in Markham.

We call attention to the dispersion sale of Mr. John Ballachey, Brantford, Ont., which will be held on the 20th and 21st of December. Mr. Ballachey is selling off all his stock and implements, as he intends moving away. Implements, furniture, sheep and grade cattle will be sold on the 20th, and the Shorthorns, Berkshires and feed on the 21st, on which day trains from London, Toronto, Buffalo, Tilsonburgh, etc., and intermediate stations, will stop morning and evening at the farm, for the accommodation of parties going to the sale. Catalogues are now ready and we understand the stock is in a good thriving condition. This sale will afford an excellent opportunity for the purchase of good foundation Shorthorns, as those of Mr. Ballachey came from the herds originally of Mr. Wm. Douglas, Caledonia, and Mr. John Gibson, formerly of Dunfield, Ont. We had the

### For Sale or Exchange—Durham Bull

Four years old; good animal and good pedigree; bred by G. B. Bristow, Rob Roy. Would exchange for Holstein stock, male or female.  
dec 1 F. F. BAKER, Nottawa, Co. Simcoe, Ont.

### —FOR SALE—

### Four Pure Shorthorn Bull Calves

8 to 12 months old Good Strong Calves, and red in color.  
dec-1 AMBROSE PETTIT, Grimsby, Ont.

### —FOR SALE—

### YOUNG SHORTHORN BULLS.

Fine animals; good colors; high-class pedigrees. Terms reasonable. Address,  
H. QUETTON ST. GEORGE, Oakridges, Ont.  
dec 3 Near King and Aurora Stations, N. R.

### FOR SALE—SIX VERY CHOICE

Clydesdale Fillies, two years o'd, imported, four of them got by Macgregor; two in foal. ALEXANDER SMITH, St. Marys, Ont.  
dec-3

### Thoroughbred Cattle Wanted!

Two farms in Kent, "Garden of Canada," 75 and 100 acres each, for sale at cash prices, and half value taken in Cattle; balance good time, 6 per cent. Write for particulars.

WM E. SCHACKLETON,  
Nov-3 Chatham, Ont.

### HERD OF SHORTHORNS

### FOR SALE CHEAP.

Bull, 4 years; 3 Cows, in calf; Heifer, 2 years, in calf; Heifer Calf; Heifer, Yearling; 2 Yearling Bulls; 2 Bull Calves.

11 Head All registered in Dominion Herd Book. Some of them are noted prize winners.

PRICE \$800. TERMS EASY.

Apply MAJOR LLOYD, OAKVILLE, ONT

### 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 highly 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 1885, 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.

### RIVERSIDE STOCK FARM

2 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. B. Prices moderate.

THOS. RUSSELL,

Dec-4 EXETER P. O., 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.

WANTED—Pure-bred Live Stock in exchange for Columbia Type-Writer, D. B. B. L. Shotgun, Job Printing Press and Outfit, Dry Goods, etc.

dec-1 J. C. STOCKWELL, Danville, P. Q.

### HERDSMAN'S DIRECTORY.

G. C., box 1, Elora P. O., Ont., wants a situation as herdsman. Shorthorns preferred. Best of references given.

pleasure of reviewing them, a little more than a year ago and were much pleased at that time with their condition.

Mr. Hugh Thomson, St. Mary's, writes: "I exhibited my yearling bull Victor Hugo Ingram, sired by Sir Arthur Ingram, at London only, where I took first honors, beating the first prize bull at Toronto. Before leaving London, I sold him to James Deans, Paris station, from whom I have had most favorable accounts about him. Mr. Deans writes me that since he purchased him, he has taken the following honors, viz., 1st at Blenheim Tp., held at Drumbo, 1st in his class, silver medal for the best beast any age or breed at North Brant show, 1st at North Waterloo, at Southern fair, City of Brantford, 1st at two year old, and sweepstakes for best bull of any age or breed, at Burford Tp. 1st for two-year-old, and sweepstakes for best bull of any age or breed. He headed the herd which took 1st prizes at all the above named places, except Drumbo, where no herd prize was offered. He is a grand pedigreed bull, and a grand animal. I have already a number of calves sired by him, which will be sold at our sale on January 25. Should nothing happen him, Mr. Deans will have one of the best show bulls in the Dominion. He weighed just 1800 lbs. the day I delivered him."

Mr. David Clark, Meadow Bank Farm, Peabody, Ont., writes: "I have been very successful this fall at the shows. My bull Golden Lion came out first at the Chesley show, where he won diploma for best bull any age. Won there the Durham herd prize for the second time, and the grade herd prize for the fourth time. Secured 10 red tickets and 6 blue for cattle, and diploma for best essay on improved breeds of cattle; took 26 prizes and four diplomas and a special for the most successful competitor. At Sullivan show, took a clean march through firsts and diploma on bull - won nine firsts at this show - on cattle, first for draught team and a number of other things - asking 27 in all at this show and five diplomas. Have sold Golden Lion to Mr. Hooker, township of Avon, as I could not use him longer. He was purchased from Mr. Norrie, Paisley. Have purchased again from Mr. Norrie. The name of the bull is Golden Lemon. He is out of Golden Bracelet 4th; 8 dam, Golden Bracelet 2d, imp. His sire, Young Abbotsburn, is a grand bull, bred by the Messrs. J. & W. Watt, Salem, Ont. He is straight Cruickshank. Have also sold a bull calf to Mr. McGee, Sullivan, and a Southdown ram to Mr. Riddle, Sullivan. Put 100 loads of turps under cover for winter, and have laid in a large supply of meal, so that we will not lack for feed this winter."

Mr. Geo. Thomson, Bright, Ont., is now the owner of some 25 head of pure Shorthorns, of these Clementina, imp., and Mina 12th, bred by John Isaac, of Markham, are both Cruickshank in the top crosses. Clementina had a bull calf, mainly red, got by imp. Vermilion, the stock bull of Frank R. Shore, of White Oak, from whom the dam was purchased, and has again dropped a bull calf, by the Messrs. Green Bros.' Earl of Mar, of the Glen, Innerkip. This is also mainly red. Mina 12th bred a heifer by Vermilion in 1886, and this year a bull by the stock bull Cashier, got by Prince of Northumberland, and out of Clementina. The other portion of the herd are mainly of Bates descent. Mr. Thomson has animals of both sexes for sale, and proposes giving increased attention to the breeding of Shorthorns. Mr. Thomson reports and instance of the production of triplets, out of the Shorthorn cow Maid of the Mist and a bull clansman, bought from J. Russell, Richmond Hill, which afterwards went to Bow River, N. W. T. These were born Sept., 1886, two heifer, and a bull, all doing well and a fine size. This cow produced six calves within three years. Mr. Thomson has a select flock of Southdowns, four ewes of which were bred by Mr. Jackson, Woodside, Abingdon. See breeder's card.

**Herefords.**

The Hon. M. H. Cochrane, Hillhurst, P. Q. has sold to Mr. C. H. Hackett, Compton, the three two-year-old Hereford heifers, Portrait 2nd, Cassandra, and Young Queen 2nd, to form the nucleus of another pure-bred herd within a few miles of Hillhurst. The local interest in pedigreed stock in that neighborhood is developing rapidly since the establishment of the Sherbrooke Exhibition. To encourage its further extension Mr. Cochrane has wisely determined to offer a selection of finely-bred stock at low prices to parties in the district for the purpose of founding herds. To those who do engage in this work, it will be found a great advantage to be located in a neighborhood that has long enjoyed the reputation of producing good cattle.

Mr. B. N. E. Fletcher, Silas, Mexico, has purchased Messrs. Green Bros.' (Innerkip) entire herd of Herefords for the Guanajuato Stock Association, Mexico; with the exception of two yearlings, they are all imported, and the whole herd, which is headed by Cronkhill 8th, prize-winner of the silver medal, is in fine condition, notwithstanding the heavy droughts. He also takes with him the white Shorthorn bull calf Quentzal, sired by the Earl of Mar (47815) dam, Vain Maid (imp.), by Edgar (41502). He also includes in the shipment a number of Cotswolds and Southdowns, selected from the flocks of Messrs. Stone, Lee and Thompson. Altogether, they are undoubtedly the best lot ever shipped to Mexico, and the Guanajuato Stock Association are to be congratulated on securing so valuable an addition to their herds and flocks.

**Ayrshires.**

Messrs. W. M. & J. C. Smith, Fairfield Plains, Ont., have been very successful exhibitors for some years past at our leading shows in their respective lines. They bred Ayrshire cattle, American Merino sheep, Poland China pigs and a variety of poultry. Their four-year-old Ayrshire cow Empress was awarded first at Ottawa for best female any age, and they carried the pen prizes on both sheep and hogs at Toronto and Ottawa. They won in all \$1325.25 in cash prizes, to say nothing of medals and diplomas.

**Sheep.**

Mr. H. H. Spencer, Brooklin, Ont., reports his Shorthorns as thrifty, though not in high condition. Shropshires doing extra, and all the breeding ewes now carrying lamb. Rams all sold the demand having been better than usual. The last lot of five head were sold to Mr. Geo. H. Mullery, of Montana, U. S. In Berkshires, the demand has been very good, only a few young sows on hand. Have just shipped a very choice young boar, to D. H. Ketcheson, of Menie, Ont.

**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 fame, all from the best strains, and registered in the Dominion Herd Book. Also young Horses and Pigs. Inspection invited.

F. C. SIBBALD.

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



I HAVE now on hand and for sale 13 extra good young bulls, all by imported sires and mostly out of imported dams, besides an excellent lot of young cows and heifers. All for sale.

I expect a consignment of young bulls and heifers shortly from Scotland. I have also a good lot of imp. GLYDESDALE 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.



**C. G. Charteris & Son,**

BEACHWOOD FARM CHATHAM, ONT.

BREEDERS OF

**Pure SHORTHORN CATTLE**

The splendid young roan bull 10th Earl of Darlington, bred at "Belvoir," and possibly famous strains, at head of herd.

Four bull calves for sale, sired by Crown Prince (12366) and Lord Byron (18821), and a few heifers, all registered in the new Dominion Herd Book.

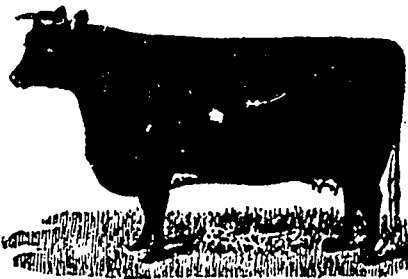
2 Miles from Chatham on the G. T. R.

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.

**MAPLE LODGE STOCK FARM**

Stables one mile west of Lucan Crossing, of London, Huron and Bruce and Grand Trunk Railways, 16 miles north of London.

We breed and have for sale first-class

**SHORTHORNS,  
LEICESTERS and  
BERKSHIRES**

A grand lot of young bulls, shearing rams and ram lambs for sale now, and we will sell them worth the money.

Come and see us.

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

Mr. Wm. Whitelaw, Guelph, Ont., reports having made a fresh importation of Border Leicesters with rams and ewes. He is finding a greater demand than he can supply, and has decided to breed only that class of sheep in future.

R. Rivers & Son, Spring Hill Farm, Walkerton, has made the following sales of breeding stock this fall: To H. Wallace Nova Scotia, one ram and two Leicester ewe lambs; Samuel Carter, Carrick Tp., one Leicester ram; J. H. McInnes, Ottawa, one shearling Southdown ram; Louis Fountain, Brant Tp., one pair of Southdown shearling ewes; John Hovey, Howick, Tp., one Southdown ram lamb; S. S. Adams Granby, Que., one Berkshire boar, E. Goodwin, Painesville, one Berkshire boar, W. J. Bell, Brant Tp., one Berkshire boar and sow; Labold Kramer, Mildmay, one Durham bull calf. Six good ones for sale yet, sired by Duke of Hamilton - 773-, and British Duke - 3203-.

Mr. Henry Harrison, of Huron, Dakota, U. S., has been purchasing a large number of Shropshire sheep in Ontario. He bought of Messrs. D. Grant & Sons, of Woodville, their whole stock of rams, one of which is the well known Lord P, from the noted flock of T. S. Minton, Montford Bridge, England. This ram and his get have been successful winners in the leading show rings of Ontario, during the past three seasons. The others were sired by Lord P. from imported dams and grand-dams from the flocks of Richard Jones and H. Lovatt. The above firm also report having sold their entire flock of ewes and ewe lambs to J. Campbell jr., of Woodville, Ont. Several of the ewes were imported, and with the ewe lambs which were sired by Lord P, are a fine lot. Impending changes in the firm, and the erection of buildings the coming season is the cause of disposing of Shrops for the present.

**Poultry.**

Mr. W. B. Cockburn, Aberfoyle, Ont., reports that his stock of poultry are doing well and give promise of paying returns this winter.

STANDARD WYANDOTTES, for sale cheap, quality considered. Also Pekin Bantams. Address, P. G. Keyes, Ottawa, Ont.

FOR SALE.—FOUR PAIRS BROWN CHINA GEESE, and some very fine Rouen, Aylesbury and Pekin Ducks, also a few Plymouth Rock cockerels, all good birds. Write for prices. W. B. COCKBURN, Aberfoyle, Ont. nov-3

**A. G. H. LUXTON**

OF THE BARTON POULTRY YARDS, HAMILTON, ONT., won at Caledonia this fall 1st and 2nd on Light Brahmas, 1st and 2nd on Buff Cochins, 1st and 2nd on Leghorns, 1st on Hamburg, 2nd on Game, 2nd on Cayuga Ducks; also won 22 prizes out of 25 entries at the Provincial Exhibition, Ottawa. Birds for sale from \$1 each up. Eggs in season.

**WESTMINSTER POULTRY FARM**

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

Over one hundred choice well-bred chicks for sale this fall—WYANDOTTES, PLYMOUTH ROCKS and DARK BRAHMAS. Remember my stock wins highest honors whenever and wherever exhibited.

**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 Berkshires are of the choicest breeding—large size and grand individuals. For prices and other information, address as above. Aug-7

**THE SECOND ANNUAL SALE**

**40 HEAD OF AYRSHIRE CATTLE**

OF THE

**BOILING SPRING FARM**

Will be held on the premises on

WEDNESDAY, DEC. 21, 1887

From mostly imported stock.

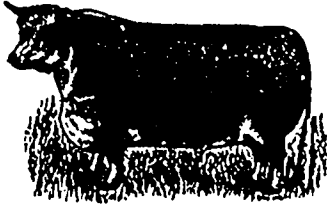
**Ten Young Horses and Colts.**

**Ten Thoroughbred Berkshire Pigs.**

BOILING SPRING FARM is three miles from Burlington, on the Toronto branch of the G. T. R.

E. W. WARE, Prop., BURLINGTON, ONT.

**THE TUSHINGHAM HEREFORDS**

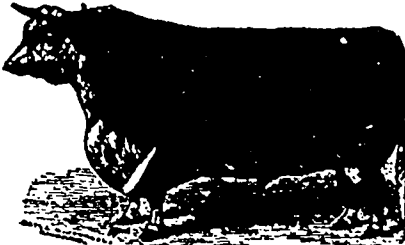


THIS herd, grounded on selections from the best blood in England, is remarkable for the number and uniformity of the good calves that it has produced during the three years of its existence, owing in a great measure to the excellence of the stock bull Tushingham (8127), by Charity 3rd (6350), by The Grove 3rd (5051). Several young bulls of his get are held for sale.

J. W. M. VERNON,

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

**LOWLANDS HERD**



A CHOICE LOT OF

**YOUNG HEREFORD BULLS FOR SALE.**

All eligible for or already entered in the "American Hereford Record." Amongst the sires of my herd are Auctioneer, Careful, Hayden Grove, Downton Boy, King Pippin, and Cassio. Also a fine lot of imported

Welsh and Shetland Ponies for Sale.

E. W. JUDAH.

"Lowlands," HILLHURST, P. Q.

**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 (6630) 13514.

**SHORTHORNS**

Heifers and bulls for sale, mostly sired by imported Duke of Hascote 68th, 65797.

Also a number of fine Hereford grade heifers and young bulls.  
G. F. BENSON, Cardinal, Ont.

**The Park Herd of Herefords,**

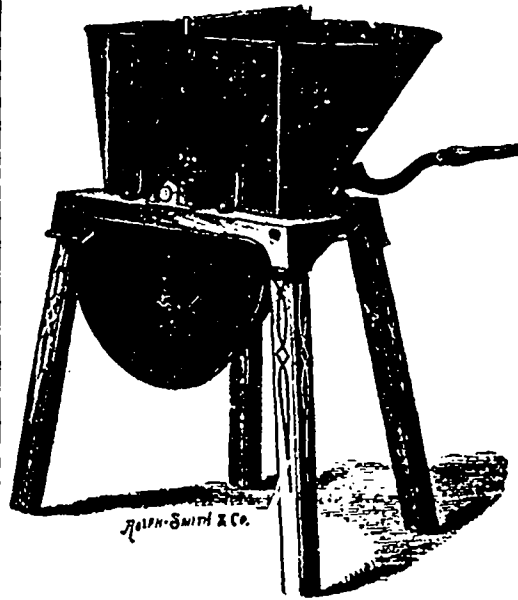


THIS herd embraces over fifty head of choice animals. All registered. Catalogues sent on application.

F. A. FLEMING,

Weston, Co. York, Ont.

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



**STRAW CUTTERS. ROOT CUTTERS. GRAIN CRUSHERS**

THIS cut represents our Patent Reversible Root Cutter, which by turning one way slices for cattle, and by reversing pulps for sheep. It will do more and better work than some machines at nearly double the price. All iron and steel except the legs; last forever. Price, \$20. With very large balance wheel, \$24.

Letter received from Mrs. E. M. Jones, of Brockville, the great Jersey Cattle Breeder.

BROCKVILLE, Nov. 15th, 1887.

GENTLEMEN:

I have now tried the Root Cutter, and am happy to report that we are delighted with it. It does even more than you claimed for it, and is the only Cutter I have seen that could be run by hand without being unreasonably laborious. It is run and fed by one man, and it is seemingly nothing to cut roots for all my stock. When another person feeds the hopper my foreman cuts a bushel in 40 seconds, and pulps a bushel in 80 seconds without exerting himself; and both cutting and pulping are done in a thoroughly satisfactory manner.

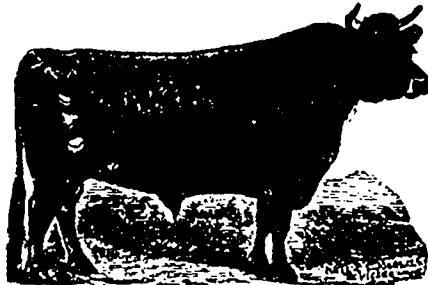
Mrs. Jones had other more expensive Root Cutters on trial, but none were satisfactory.

**J. FLEURY'S SONS, Aurora, Ont.**

Correspondence Solicited.

**OAKLANDS 'JERSEY' STOCK FARM**

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

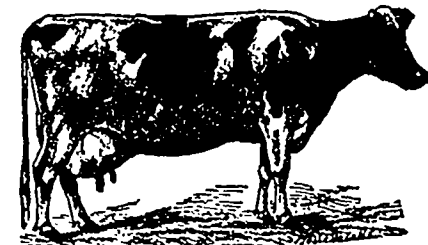


Cows with well-authenticated test of from 14 lbs. to 24 lbs. 13 oz. in one week, and from 8 1/2 lbs. to 106 lbs. 12 1/2 oz. in 31 days are in this herd. Young bulls registered in the above herd book for sale from \$100 to \$500 each.

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.

**The Manor Stock and Dairy Farm**



HOME of the imported Holstein-Friesian bull MARS ELLIS No. 661, Vol. 1, H. F. H. B., selected in North 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,

St. Anne la Perade, Co. Champlain,

on line C. P. R., near Quebec.

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

**A. FRANK & SONS**

Cheltenham Station, C. P. R. R.,  
The Grange P. O., Ont.

BREEDERS OF  
**Thoroughbred Horses**  
Shorthorns, Southdown Sheep  
of highest strain and pure-bred.



**SUFFOLK PIGS**, all registered. Young stock of all the above for sale. All orders promptly attended to. A number of young Shorthorn Bulls for sale at moderate prices.

**The Breeders' Annual**

ONLY PUBLICATION OF THE KIND IN THE WORLD.

**LIVE-STOCK JOURNAL ALMANAC, 1888**  
READY IN DECEMBER, CONTAINS

**BREEDERS' DIRECTORS**

A complete list of the most reliable breeders of all kinds of live stock.

Articles by the Earl of Coventry, Major Gen. Ravenhill, Professors Wortly Axe, Sheldon, Wrightson, and Boyd Dawkins, Sir J. B. Lawes, Bart., Dr. Bowman, Messrs. Walter Gilbey, Alfred Mansell, James Biggar, W. S. Hosley, F. J. Lloyd, Sanders Spencer, A. MacNeilage, E. Prentice, J. E. Backhouse, Edward Brown, R. H. Rew, Bosworth Smith, H. F. Euren, R. Bruce, R. E. Loft, "G." and other distinguished writers.

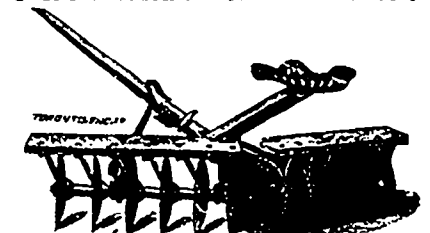
Illustrated by Sturges, Gauci, Williams, Babbage, Townsend, Lydon, Ludlow, and A. Price.

Mailed free on receipt of 35 cents. By VINTON & CO., Ltd., 9 New Bridge St., London, England.

**THE "NEW MODEL"**

Rotary Disc Jointed

**PULVERIZING HARROW**



MANUFACTURED BY

**J. F. Millar & Son, Morrisburg, Ont.**

Effective in work, simple in construction, durable in wear, convenient in handling. Progressive farmers say that it is the very best farm implement ever produced.

The "New Model" Disc Harrow can be set up without hammer or wrench; can be taken apart in 30 seconds, without hammer or wrench; can be loaded into a wagon by one man; its scrapers clean perfectly in any soil; its lever changes the angle of the gangs easier than any other; its scrapers are automatic in their operation; its journals have no end friction nor end wear; its scrapers operate independently of each other; its draft is not carried on the neck-yoke; its scrapers are self-sharpening by wear; its gangs are flexible, and they run level; its scrapers clean the disc without attention from the driver; its draft is lighter than any other harrow doing the same work; its axles are square, and provided with lock nuts and lock washers; less freight, less handling, less wear, and less trouble.

We specially request any person wanting a harrow to test The New Model in the field alongside of any harrow made. The New Model will be made for 1888 with new ratchet lever for changing gangs, a cut of which will appear in the next issue of this Journal. Write for circulars and prices. Agents wanted where we have none.



HILLHURST HERDS

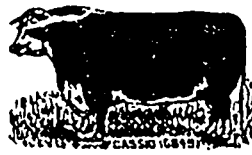
HEREFORD,

Aberdeen-Angus and Jersey

HEIFERS, COWS AND YOUNG BULLS FOR SALE

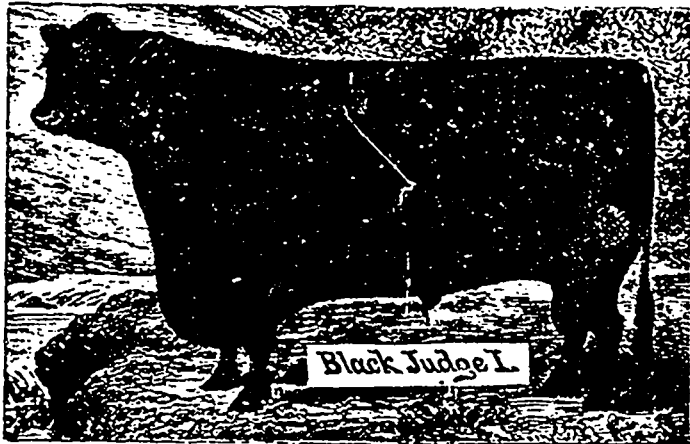
At reasonable prices, Send for new catalogues.

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



CANADIAN HOME OF THE ABERDEEN ANGUS-POLL

UNCONQUERABLE



BLACK JUDGE 1

First Prize Winner Toronto Industrial, 1883-1884-1885-1886. Grand Dominion and Provincial Medal and Diploma 1885. First Medal and Diploma, best bull any age, Toronto Industrial 1885-1886. Service Fee, \$100.

KINNOUL PARK STOCK FARM, NEW LOWELL, ONTARIO. HAY & PATON, Proprietors.

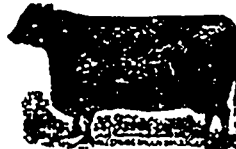
WE beg to call the attention of our patrons and friends to the above splendid cut of our Champion Bull Black Judge (1), with his unapproachable record underneath. We have also much pleasure in saying that we have again taken all the leading Prizes and Honors at CANADA'S GREAT FAIR, of this year. Not once, since 1882, have we missed taking the coveted Medal and Diploma for the best herd of Aberdeen-Angus Polls; and the Medal and Diploma for best bull of any age have gone to Kinnoul Park no less than FIVE TIMES IN SUCCESSION. For four years running we have secured the first premium for cows; twice being first, second and third; once (in 1884) against a ring of fourteen of the best animals ever shown together in Canada, comprising choice herds from Messrs J. H. Pope, Mossom Boyd, Geary Bros. and H. Walker & Sons.

We have confidence in asking intending purchasers to inspect our stock and prices before investing. We have some choicely bred Bulls and Bull calves which we will sell at prices ranging from \$100 to \$500, ACCORDING TO BREEDING AND QUALITY, and we shall have pleasure in sending to any address our Illustrated Descriptive Catalogues.

HEREFORDS FOR SALE.

30

Imported Yearling Hereford Heifers



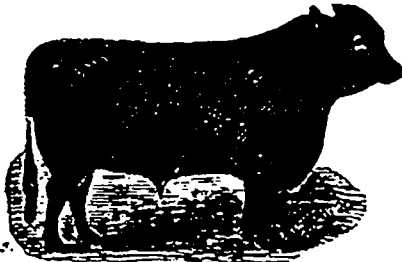
Eligible for entry in American Herd Book, all of which have been bred during the past season. Will be sold from \$250 per head up.

ALSO A FEW CHOICE YEARLING BULLS

R. H. POPE, EASTVIEW, COOKSHIRE, P. Q.

KEILLOR LODGE STOCK FARM,

THE GEARY BROS. CO'Y, Proprietors.



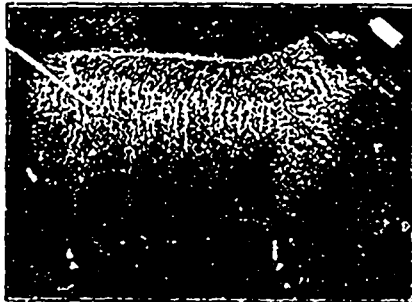
IMPORTERS AND BREEDERS OF POLLED ABERDEEN-ANGUS CATTLE AND ENGLISH SHIRE HORSES.

Young Stock, Imported and Home-bred, for sale

The Geary Bros. Co'y, Bothwell, Ont.

BLI BRO STOCK FARM,

GEARY BROS., PROPRIETORS,



IMPORTERS AND BREEDERS OF Polled Aberdeen-Angus Cattle, Lincoln and Shropshire Down Sheep. Young stock, imported & home-bred, for sale.

GEARY BROS., London, Ontario.

JAMES DRUMMOND,

Petite Cote, Montreal.

Importer and Breeder of PURE-BRED

AYRSHIRE CATTLE



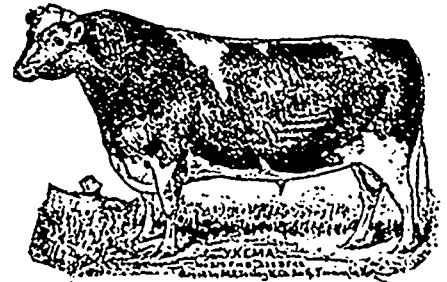
Of Large Size, and from Choice Milking Strains.

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.

SMITH BROS.

MOUNTAIN VIEW STOCK FARM



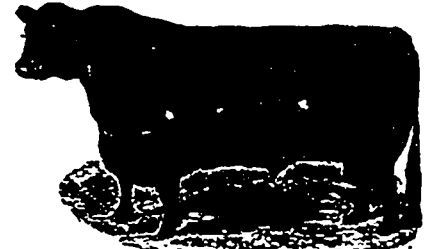
DUNDAS, ONT.

Breeders and importers of pure bred

HOLSTEIN - FRIESIAN CATTLE

Stock always on hand for sale. Send for catalogue. Visitors always welcome.

100 PURE-BRED ABERDEEN-ANGUS CATTLE



MOSSOM BOYD & CO.,

BIG ISLAND STOCK FARM,

BOBCAYGEON, ONTARIO, CANADA.

First Prizes, Windsor, Victoria, Sybil, Kinnochry Blue bells, Westworn Rose, Ballindaloch 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.

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 Aeggie 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. of unsalted butter per week. This herd has been crowned with more honors in the showing 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.

# 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 home-bred 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 purchasers to examine 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.

SHROPSHIRE SHEEP.

J. F. ORMSBY, V. S.,

ORMSBY & CHAPMAN,

GEO. S. CHAPMAN.

English Shire Horse Society.  
Dominion Clyde Horse Association  
English Nat. Pig Breeders' Association.  
American Shrop. Sheep Breeders' Assoc.

ONTARIO LODGE,

Imported and home bred stock for sale.

OAKVILLE, ONTARIO.

Every pedigree guaranteed. Prices low.

All our pigs registered in the English Herd Book.

"Good Stock with Straight Pedigrees," our motto.

## THE GLEN STOCK FARM,

Innerkip, Oxford Co., Ont.

SCOTCH SHORTHORNS,  
SHIRE HORSES,  
BERKSHIRE PIGS.

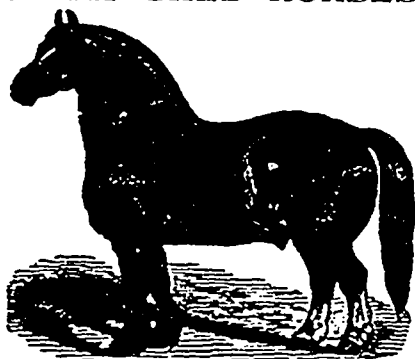


Herd headed by imported Earl of Mar (47515), winner of the gold medal at the Grand Dominion and 39th Provincial Show, and numerous other prizes.

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.

### SHIRE BRED HORSES



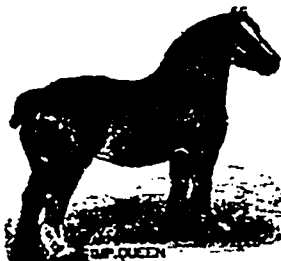
**MORRIS, STONE & WELLINGTON**  
IMPORTERS, offer for sale choice Stallions, Mares and Fillies, which are registered in the English and Canadian Shire Stud Books, including prize winners at the Royal Agricultural in England, and the Industrial at Toronto.

MORRIS, STONE & WELLINGTON, Welland, Ont.

## D. & O. SORBY,

GUELPH, ONT.

Breeders and Importers  
of Registered  
**Clydesdales.**



Sixteen imported Clydes  
on hand, nearly all of them  
are winners in Scotland,  
and of which four are stallions. The above are

### FOR SALE

along with a few Canadian bred. Visitors welcome.

ARTHUR TOPHAM,

78 Wood Street, Bold Street, Liverpool.

Exporter of every description of English pedigree Horses, Cattle, and Sheep. Buyers visiting England offered every assistance. Lowest rates for freight.

7-6

## FOR SALE PERCY & YOUNG FOR SALE

Bowmanville, Ont.

Home of the Provincial Renowned Manfred (1735)

Have on hand for sale, on very reasonable terms, their 1827 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 brogue 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.

## 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.

## BROOKSIDE FARM

New Glasgow, Pictou Co., N. S.

## STANDARD-BRED TROTTERS

American Cattle-Club Jerseys.

## Imported Clydesdales FOR SALE.

Prices moderate and terms to suit purchasers.  
Not long arrived, a superior lot of registered



### CLYDESDALE Stallions and Fillies

from 1 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 Hopton, 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,  
Wellington P. O.,

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

## CLYDESDALES



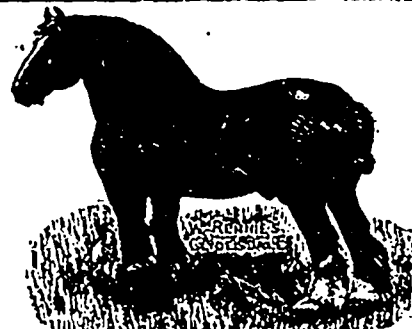
FOR SALE

ON REASONABLE TERMS.

NOT long arrived, a superior lot of Clydesdale Stallions, ranging from one to four years old, including gets of the celebrated sires Druid, Lord Kirkhill, McCammon, Lord Erskine, Newman, Belted Knight and Garnet Cross.

Catalogues will be published shortly.

ROBERT BEITH & CO.,  
Aug. 21, '86. BOWMANVILLE, ONT.



## 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 (1318), Harold (2354), Belted Knight (1395), etc., etc., for sale at reasonable prices; also a few Shetland Ponies.

WM. RENNIE, Toronto.

Stables, 88 Duchess St.

## GRAHAM BROS., CLAREMONT, ONT.

RESIDENCE ONE MILE FROM CLAREMONT STATION.

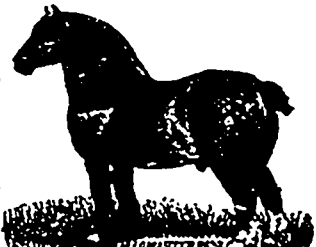
Importers of  
Registered

### Clydesdale

STALLIONS AND  
MARES.

We have constantly  
on hand and

### FOR SALE



At reasonable terms, a number of superior Clydesdale stallions and mares, registered, and which have been selected from the most successful prize winners at the leading shows in Scotland. Also a few choice SHETLAND PONIES.

Correspondence solicited, and visitors always welcome.

NOTICE TO HORSE OWNERS. - Ridgling Horses castrated with perfect safety. All other forms of castrating done without causing the animal. Send for terms and particulars. J. F. QUIN, V. S., Brampton, Ont., or R. J. QUIN, V. S., Edmonton, Ont.



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.

J. Y. REID, HILLSIDE, ONT.

(2 1/2 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.

MESSRS. J. & R. HUNTER, ALMA, ONT.



Importers and Breeders of SCOTTHORN CATTLE. Clydesdale Horses and Shropshire Down Sheep. A good selection of young bulls, from 4 to 30 months old, including the pure Booth Commander-in-Chief—the others are mostly Booth blood—are now offered for sale. TERMS REASONABLE.

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