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# CANADIAN LIVE-STOCK JOURNAL.

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

VOL. III.

HAMILTON, CANADA, APRIL, 1886.

No. 4



THE ABERDEEN-ANGUS POLLED COW WATERSIDE QUEEN 3RD (3322).

Imported by and the Property of Rufus H. Pope, "Eastview", Cookshire, P. Q.

## Waterside Queen 3d (3322).

This grand specimen of the Aberdeen Angus Polled was purchased by her owner, Mr. Rufus H. Pope, Cookshire, Que., from Mr. Geo. Wilken, Waterside of Forbes, Aberdeenshire, Scotland, by whom she was bred. A paragraph in the November number of the JOURNAL, 1884, regarding her individuality, reads thus. "It would not be easy overmatching her." And another in the November number, 1885 (p. 29) describes her as "smooth, strong, low, deep, level, immense, and carrying a very fine, intelligent head, one of the best cows of her species in the world." Nor do we consider the above the language of extravagance, as we have looked upon this handsome cow once and again, and always with the same admiring gaze. Mr. Pope considers her the best female in his herd. Her weight is 1,900 lbs., and yet her wealth of flesh does not interfere with that rounded symmetry which distinguishes the Aberdeen-Angus Polled from the Shorthorns in their general appearance.

Waterside Queen 3d. won first at the Provincial Exhibitions at Montreal and at Ottawa, 1884, and first in her class and diploma for best female of her breed on the ground at Sherbrooke, 1885.

She is only one of a very large gathering of this excellent breed of beefing cattle in Mr. Pope's herd at Eastview, which is made up of a number of the best specimens that could be purchased in Scotland, and of the best families, and the descendants of these since bred at Eastview.

The wonderful achievements of this breed in recent years in English and American fat stock show rings cannot but recommend it to the favorable notice of beef producers, and the very superior quality of the meat will further tend to popularize it with the beef loving portion of our farmers.

OUR sincere thanks are again given those friends of the JOURNAL who have sent us so many subscribers during the past few months, thus placing its circulation far in advance of what it was last year. Readers of the JOURNAL would be pleased to notice that our advertising patronage last month was so large, we were obliged, that issue, to add four pages, that reading matter might not be curtailed. We are grateful for the support thus given us by the honest, intelligent and progressive farmers from one end of the Dominion to the other. We trust the JOURNAL will always merit the support thus accorded

it. From the number of subscriptions still coming in, we believe it is not yet too late in the season for those desiring so to do to send one or more subscribers. We can supply back numbers of this year. Send for sample copies to show your friends.

A LITTLE NATURE.—On the 2d of March, one of our imported Shropshire Down ewes dropped a strong ewe lamb, which grew lively, the ewe in good health also, and on the 15th of the same month she dropped another strong ewe lamb. On both occasions the act of parturition was performed in the usual way, with the exception that on the last occasion a little assistance was necessary from the herdsman. Both lambs are doing well at the date of this writing (March 22). Singular as this fact may appear, there can be no doubt about its correctness, as the herdsman, who has grown up amongst stock, and two members of our own family, can testify. We were not at home when the first lamb came to hand, but were when the second one arrived, and have cared for them repeatedly with our own hands. They are good strong lambs, the younger one fighting bravely for its share of the milk. Have any of our readers heard of a similar instance?

**Canadian Live-Stock 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, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines, \$1 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.

**To Correspondents.**—All communications intended for publication in the JOURNAL should reach us by the 20th of each month—~~earlier, 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, APRIL, 1886.

Please examine your address tag. If it reads, Dec., '85, your subscription expired with that issue, and so of any month, and we will be obliged if readers in arrears will renew at once.

A number of our subscribers have lately complained of not getting their JOURNALS regularly, which to us is a matter of regret. Every subscriber's name is printed on our subscription list and the JOURNALS addressed by a mail despatcher, so that a mistake on our part is almost impossible. We believe the fault lies more frequently with the post offices, but hope our readers not receiving their JOURNALS regularly will always let us know at once.

THE idea is somewhat prevalent that the term *scrub* applies only to inferior classes of cattle. It is oftener used thus, it may be, but it is certainly as applicable to inferior classes of horses, sheep and swine, and the loss resulting from keeping scrub animals of any of these classes is correspondingly great. We do not think that the number of scrub cattle is proportionately larger than that of any of the other kinds referred to, if indeed so large. The free application of the term to cattle is bearing its fruit, inasmuch as a good many are trying to wipe away the reproach upon their methods; and we would that all could so be wrought upon. A Kansas cattle man has stated, that had he purchased good cattle when he commenced business some years ago, he would to-day be worth \$10,000 more than at present. How much more would not the Dominion be worth to day did every farmer but possess good stock; and how much richer would not every individual farmer be, if every beast now a scrub was instead an improved animal? Answer, our western contemporary, thou champion defender of the scrubs.

MAN suffers, pines, and prematurely dies, who is not kept supplied with a sufficient quantity of pure air. Under these conditions we never find him at his best, nor can he properly fulfil the ends for which he was intended. Pure air and plenty of it are as essential to the well-being of quadrupeds as to that of the human

race. Dark and overcrowded stables react very injuriously upon the inmates, and on no class of them, perhaps, so much as upon the horse. According to the *North British Agriculturist* a minimum space of 300 cubic feet should be given to each horse, and it is better for them where they can have 1,200 to 1,500 cubic feet. The same writer recommends raising the floor a foot above the surface level, and using as a material for the same a concrete of ashes, gravel and lime. A beast properly kept will invariably give better results than one which is not, and therefore it is the duty of all to place every animal which they may take in charge under those conditions most favorable to the security of the best returns. The humanity side of the question we have not touched upon.

THE Chicago *Breeders' Gazette* in a recent issue has a trite sentence bearing on sheep husbandry, which reads thus: "Upon the shepherd rather than the Congressman must they (flock-owners) depend for 'prosperity in sheep husbandry.'" Weigh it well, ye stock-owners in every line. It is to the concentration of your efforts upon your own branch, and the bringing to bear upon it your best energies, that ye are to look *mainly* for success. The Government may do a good deal by way of protecting you from diseases incident to live-stock, but they cannot do very much toward lessening the size of bone and increasing the proportionate amount of flesh. That must be done by judicious mating in the first place, and following this up by judicious and liberal feeding. The Government may say that wools may come into this country free, which may have a bearing on the price, but it cannot put ten pounds of wool upon the back of every sheep in the flock, where but six grew before—that must be done by the breeder. A self-reliant and persevering industry is an excellent form of protection.

It is always a question with young men as to which calling will give the best return for the outlay, and very properly so. It is not natural that a man should spend his strength for naught, nor would it be wise. It is well, however, that young men in choosing a life work, should consider the extent of the *competition* that they must encounter on its threshold, as well as their natural fitness for the work and advantages of its situation. In most lines the competition is very keen, and one who wishes to keep abreast must work with all his might. Yet even in farming there are lines which are less crowded than others. The keepers of good stock, though in the aggregate a strong army, are numerically small compared with the grain growers, and therefore in their line the competition is less keen. For many reasons a large number of our farmers do not choose to make stock-raising a leading interest, and though this is to be deplored, it leaves more room for those who lead in this direction. The early bird is the one which is surest of a full break fast. So he who is first to introduce good stock into his neighborhood is likely to be foremost in reaping the reward.

It is a great matter that an interest in good stock be awakened, and whatever will tend to move men in this direction is a blessing to the community. It matters not so much in which direction the current of this interest flows. The great thing is to start it flowing. Waters that do not flow, in their dank stagnation carry blessing to no one. So where there is no progress, the odors of a fatal miasma brood over neighborhoods, fatal to their best material interests. It has been said, and truly, that there is no such a thing as standing still in the domain of spiritual life. Where

there is no advance, indolence is engendered, which in its turn corrodes, so that deterioration or retrogression is the order. Whatever creates an interest, therefore, is to be hailed with welcome, whether it be the exhibition, the newspaper, or the object-lesson taught by him who successfully introduces a better class of stock. It is simply marvelous the apathy that is shown in this matter in so many sections of the country. One would suppose that, where so many good animals are exhibited, increasing interest could not but be awakened, even in the minds of the most sluggish. And so it would, we believe, but that so large a number fight against the awakenings of impulses that would lead them onward, through a process of false reasoning, having its seat in the ancient ruts of old-time practice. The work of doing something to awaken this interest is relegated to every stockman by an expectant country. And a great work it is. Its ramparts extend from sea to sea. Yet there is no reason for being discouraged. Of late years the advance has been great, and the time draws on when this mountain shall become a plain.

### Why Stock Feeding May Not Pay Sometimes.

Quite a number have tried stock-feeding in the stall on a limited scale, and after one or two trials which resulted in a balance sheet on the wrong side, have given it up in disgust, with the conviction that it cannot be made to pay. It is not with the decision that we are so much disposed to quarrel as with the steps which have led to it. While we cannot attach blame to any one for casting aside a venture which has not been attended with any profit, but rather loss, we may at the same time deplore the mistakes that may have led to this, and the baneful effect upon others.

That it can be made to pay, and pay richly, has been demonstrated over and over again in hundreds and thousands of instances. We can name farmers by the score who have amassed money in this way, which makes it abundantly clear that it *can* be made to pay. The fact, too, is very significant, that with but a very few exceptions the medal awards for the past six years have been given to farms largely devoted to the breeding and feeding of stock, and yet the number of farmers is very large who labor under the delusive idea that stock-feeding (in the sense of stall-feeding) cannot be made to pay; nor is it an idea consisting of mere sentiment, but one arrived at as the result of experiment made by themselves.

There are reasons, then, for these unfortunate conclusions, and we propose in this paper to trace what some of these may be, with a view to their removal.

(1) Some do not succeed because of a *natural inaptitude* for the work. There are those who never make any business pay them, whatsoever its nature. If set up in business to-day, by the expiration of one year they would be struggling amid difficulties. They may eke out a living in the rut in which they have all along jogged, but seem incapable of turning over one single leaf in the line of practical progression. Stock-feeding is expensive, and unless he who engages in it has tact sufficient to keep the eaters making the most of their diet and pushing well ahead, he will not succeed.

(2) Others fail because of the *inferior class* of stock chosen for the experiment. It is only reasonable to expect that parties who have made feeding a business and a study for years, will have a better knowledge of the work than any beginner, however well up in the theory of feeding. Now the fact is very significant, that such experienced feeders will not touch an inferior animal, under the conviction they cannot stall-

feed the same without loss. The conclusion, then, is irresistible, that inexperienced feeders handling such beasts cannot make it pay them.

But it is almost absolutely certain that it is just such beasts that are chosen for the experiment, for those of a suitable stamp are seldom found in a neighborhood where stock-feeding has not hitherto been practiced. The farmer, it may be, selects one of his own scrub steers, values him at what he would *ask* from the butcher, not what he would *get*; charges all the food fed at top market prices, not at what he would get for it in his barn; and then, unless there is a balance-sheet of direct profit he concludes that stall-feeding does not pay. The case we have supposed is just a sample of what has been enacted over and over again a thousand times, which is to be exceedingly regretted, as such experimenters are very apt to settle down self-satisfied with the experience of the past, and conclude that there is no money in stock-feeding; or in other words they are henceforth content to starve their farms by selling off the produce, and to allow the butcher to fatten on the gains accruing from the purchase of their three cent-per-pound cattle, purchased by the lump. Such experiments are peculiarly unfortunate. They dam the stream of progression in advanced farming in other ways. With the conclusion that stall-feeding does not pay comes the conviction that improved stock is not so essential, and hence a check is put upon advanced stock-feeding, improved farm-buildings for keeping the same, and advance in other ways.

(3). Some do not know *how to feed*. The mastery of this art is a splendid acquisition, but rarely found in a high degree of perfection amongst our Canadian bred yeomen, owing it may be to the unsettled restlessness of modern life in this western world, where the temptation is so strong to induce young men to change their calling from the numerous examples of others who have amassed money in a young land where the wave of general progress beats so high. To know just what to feed and what not to feed, how much to feed and when to stop, the grains which under present prices pay and do not pay, the harmonious blending of these to produce the best results at different stages of progression, the quiet that should be given, the amount of cleaning and currying that is just enough, the regularity that is requisite, are details which every successful feeder must master, and which must be made a careful study by him who is to be a success in the business. It is only reasonable to suppose that the man who has just commenced will not possess the knowledge in detail, and therefore he should not expect marked success at the outset. Our suggestion to those who have made but one or two attempts is to try again, for what some have succeeded in doing in the line of feeding may be accomplished by you.

(4). Others have not the requisite *accommodation*. It will not pay to stall feed stock where they are not kept comfortable. Where they suffer from too low a temperature they will not lay on flesh but at the expense of additional feed; where the feed has to be carried a long distance the labor bill is too high, and, where the work is carried on largely, is a serious item. Yet it should be remembered that where the farmer fattens but one or two animals, the labor bill is much larger proportionately than it would be where a number are fed.

(5). Still others do not know *how to sell*. The instances are but rare where stall feeding pays when the stock is sold by the lump. It does not pay to feed an animal when it has ceased to gain rapidly, or in other words when it is ripe, and the knowledge requisite to bring a beast to that stage about the probable market-

ing time is of much value. Locality, too, has something to do with prices. Where but two or three beasts are found in a neighborhood which hitherto provided none, dealers are naturally chary about going there, and the chances are that for the first two or three years the feeder will have to sell at a disadvantage, but this is a difficulty that all beginners have to contend with. The breeder feels it even more keenly, but due perseverance will bring its sure reward—success—and the homage of the class whom it is most desirable to reach.

(6). Others again look for profits in *wrong channels*. The profits at first to feeders are not usually in the form of cash direct, but in the form of accumulated investment, from which further and increasing profits are to be realized. A writer in the January number of the JOURNAL, on "Horse vs. cattle breeding," has put this feature of our argument most admirably when he says, "It is in the manure, in the consumption of stuff grown on the farm, in the sale to himself, that is to say, of home grown food at top market prices without the expense of taking it off the place, that the farmer's profit, whether he breeds horses or grade cattle, must be found." Thus it is at least for a time, until this accumulated power of production enables him to lay by a handsome dividend as a deposit with his banker.

Herein it is that the real bar is formed that stops the ship on her onward course—the absence of present direct cash gains. If these uniformly followed every attempt at fattening stock, our farmers would soon all become feeders. As it is, a large number of them will not engage in the work just because they have not capital to tide them on for a year or two, and second, a large proportion of those who have prefer present gains, which are certain, to future greater ones which they look upon as uncertain, or in other words they choose rather to take what the farm gives them at present and to run the chances of getting from it what it will give under a starvation process.

That stock feeding has already proved an incalculable blessing to the country cannot be denied. That men have enriched their farms in hundreds of instances and themselves as well, handing down a splendid legacy to those who shall live after them, cannot be gainsaid. What has been done by one can usually be done by another by the adoption of proper measures.

It is therefore more than prudent that those who have set down stall feeding as a non paying investment should re-examine their bearings, and ascertain what it was that was defective in past practice.

### The Terrific Evil.

A writer in a late number of the JOURNAL, in speaking of scrub bulls, says that one of these "is a 'terrific evil in his neighborhood.'" Those who have all along looked upon his lordship as deserving of the chief place at the straw stack in winter and on the common in summer will be startled at such a statement; but the readers of the JOURNAL will agree with us when we say that the adjective applied in describing the scourge is a mild one. That the language used is not too strong may be demonstrated without any trouble, as will appear below:

(1). Scrub bulls rob the farmers of a large proportion of their feed, in their perpetuating a race which are not only scrawny, but their very scrawniness necessitates a large amount of feed, as is always the case with quadrupeds that are unsightly.

(2). They disturb the peace of entire neighborhoods by the occasional raids they make on offending herds, committing depredations the ill effects of which are traceable for years after.

(3). They have occasioned the severing of long and tried friendships between neighbors, through their untimely visits, and have raised demands by way of compensation that have proved heartaches.

(4). They have formed barriers more effective than the Andes to the entrance of those who deal in superior butcher's meat, as cattle buyers for the old country trade never set foot in a scrub bull domain.

(5). When existing with a pure bred in the same region they present a standing temptation to farmers using a bull at from ten to fifty cents per service.

(6). They trouble the legislator, who finds it difficult to frame, and more difficult to enact, laws to restrain them.

(7). They are a sorrow to farmers' boys, who are tormented driving them to the pound in busy summer days.

(8). They are a great source of torment to the pound-keeper, who finds it difficult to build a wall which they will not scale or break down.

(9). They are a constant source of terror to milk-maids and to the young cow-boys of the farm, as being a privileged class, they roam at large.

(10). Their presence deprives the Province of millions which it would possess were pure-bred bulls substituted.

Without one redeeming characteristic to counter-balance these heavy charges, they are surely a "terrific evil." And we are only astonished that our yeomen have not all seen it long ago.

### Of a Scotch Letter.

A GOOD RECORD; A REPUDIATION; DEMAND FOR POLLED CATTLE.

The records of the Smithfield Club (London) have shown that for the joint purpose of providing beef and coming early to maturity, no race of cattle can beat the polled Aberdeen-Angus. A striking instance of their heefing quality has just been brought under my notice. In September, 1884, an English breeder, Major Dent, of Ainderby Hall, Northallerton, purchased at an Aberdeen sale the foundation of a herd of Black Polls. One of the animals he bought was Pride 11th of Greystone (Mr. Reid's), which at the time I noted as being "a useful, deep-ribbed heifer." Unfortunately failing to breed, last August she was put up to feed. At that time she scaled 80 stones. At Christmas she was sent to the local auction, when she scaled 100 stones live weight, took the third prize, and was sold to a butcher at £32. Killed, she dressed a remarkable carcass, and is described as one of the best fed beasts ever seen, with so little internal room that it was a surprise where the viscera had been packed, and with plenty of lean meat, very fine bone, and showing remarkably small offal throughout. Her dead weight was 62 stones, which is truly enough described as a remarkable result, considering that the animal had only been feeding between four or five months.

While speaking of polled cattle I wish to refer to an article which recently appeared in the *North British Agriculturist*, entitled "The Origin of the Tillyfour Herd—Polled Cattle and Pedigrees." There are certain statements in this communication which, with the importance they derive from the fact of being published in such a well-recognized agricultural organ, might be calculated to lower this popular breed in the eyes of foreigners like yourselves (if I should describe you as such), were they not promptly repudiated. The writer is a Mr. W. McCombie Smith, and he devotes the greater part of one article to an attempt to fix the exact time at which the famous herd of the late Mr. McCombie was started. Nothing need be said on this point, but when the writer proceeds with a needless amount of self-satisfaction to attack, on the

ground of impurity, one of the most noted tribes of the polled breed in existence, namely, the Prides of Aberdeen. I at once join issue with him. This is the extraordinary statement to which I refer:

"I make the deliberate assertion that the first Pride of Aberdeen, the most celebrated cow of the Aberdeen-Angus breed, was not a pure-bred Polled cow. By her dam's side she was as pure as any, I believe; but if Polled means anything in reference to cattle, it means that no horn or horny excrescence of any kind projects from the animal's skull through the hair. Now, Hanton, her sire, had unmistakable scurs, and was, therefore, undoubtedly not a pure polled bull. . . . I dare say to assert that the most famous cow of the Polled Aberdeen Angus breed was not a pure Polled cow will meet with some incredulity, but the question simply is—Is a bull or cow with scurs or other horny excrescence projecting from the skull through the hair on the crown of the head a Polled animal? If so, how is an animal that has no such excrescence from the frontal bone designated? If a bull or cow with such excrescence is to be called a Polled animal, what amount and nature of horny excrescence is allowable for a so-called Polled?"

This rather puerile attack upon the Polled Aberdeen Angus breed, for in attacking the Prides he may be said to be attacking nearly all the prominent families extant, will bring a smile to the faces of those whose acquaintance with the history of the polled cattle has passed the most elementary stage. The fact is well known and admitted that the black Polled Aberdeens, and the black horned Aberdeens, were herded together for many generations, perhaps centuries. And within the recollection of those living, cattle were of little value, comparatively, and no endeavor at that time was made to keep the one strain apart from the other; but notwithstanding the two strains were quite distinct at the time when McCornbie appeared on the scene, there being a typical breed of polled cattle as well as the black horned cattle. But it would have been strange indeed if the two strains had never commingled. Recognizing the pre-eminent merits of the polled variety, McCornbie and other breeders before him determined that the admirable material that lay at hand should be turned to better account. You know what in his labors have resulted—the production of a breed of cattle that in many important respects outstrips all rivals. For some forty years they have been handled with great judgment by the breeders in Scotland, and without in any way detracting from the merits of the Polled Aberdeen Angus cattle, I may say that the pluck, energy and perseverance of those who have joined their fortunes with "the blackskins" within the period covered by the recollection of the present generation, are in a great measure reflected in the extraordinary career of the breed. That an infusion of the two strains took place at a now pretty remote period has never been denied; it is admitted, in fact, in the only history of the breed that has ever been published, Messrs. Macdonald & Sinclair's. But where will you find a race of cattle showing an uninterrupted descent from one variety of uniform character? In the usual acceptance of the term the Aberdeen Angus cattle are undoubtedly pure. Since they were taken in hand by the early improvers they have been bred with extraordinary care and with equal success. As a breed their type is almost more firmly fixed than is the case in any other race of cattle. No variety exercises so strong an influence in the moulding of their progeny, not even the Shorthorn or Hereford or Devon. That has been a distinctive feature of the Polled Aberdeen-Angus cattle from the first, and it certainly points to the existence of the breed in the "dim and distant" past, and spite of perhaps a slight blending of foreign elements, before the days of McCornbie, they were found even in his time a distinct and typical strain by themselves. Mr. Smith's wonderful discovery has, I may assure you, disconcerted nobody on this side of the water; and probably, breeders on your side will also be able to value it at its true worth. Here Mr. Smith is advised by an able critic to inform himself of the elementary aspects of the subject in which he seems to have made so little progress.

The demand for our polled cattle is reviving. Breeders are getting a number of inquiries for their stock. Several buyers from America are at present here (February), and one gentleman, Mr. Christie, of Minnesota, has in Speyside and Morayshire picked up a dozen well-bred polls. At the head of the lot is a very fine ten months old bull-calf from the herd of Sir George Macpherson Grant Bt., of Ballindalloch.

Descended from the celebrated Erica family, he is by Bushman 2011, and out of Elfin 3795, by Elcho 595, and cost his new owner 100 gs. The remainder of the lot are heifers, five of these being from Aberlour Mains herd, and 6 from the Alyric herd. They have been well chosen, and the breeding of the animals is more than usually select.

QUIDAM.

### Prince Edward Island Shorthorns.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—In the February number of the CANADIAN LIVE-STOCK JOURNAL, in an article headed "The Duty of Shorthorn Breeders in their Relations to the new Herd Book," it is said: "Shall we not expect that friends in the Maritime Provinces will act upon the gentle but constant reminder and register their cattle in our herd book. Although Shorthorns are recorded in a way in these Provinces, the standard (our good friends by the sea will pardon us for saying it), is quite too low. They are placing an embargo on their own Shorthorns, which will hedge them in by a wall running around the provinces higher than that of China, from which there can be no egress to the markets of the world except through the gates which are made for the sale of beef." This may be applicable in respect to the registry of animals of this breed in New Brunswick and Nova Scotia, but so far as this Province is concerned, I beg to differ from the above, by informing you that for some years I have kept a register for all pure-bred Shorthorns bred or owned on the Island, including those bred on the Government Stock Farm. Of cattle admitted to this register, there is not one, either male or female, but which has eight or more crosses from pure registered bulls, the ancestry, in every instance, both paternal and maternal being traced to direct importation from the old country. The first bull entered as the foundation of the Government herd is Lord Clarence (22135), which was imported in 1864. He was bred by Mr. Wm. Torr, of Aylesby Manor, Lincolnshire, *got by Fitzclarence (14552), dam Lady Hopewell by Hopewell (10332), g dam Lady of the Manor by Highflyer (11576)*. These three bulls were bred by Mr. Robert Booth. His pedigree runs back to the celebrated bull Comet (155), to Mr. Colling's Favorite (252), and Hubback (314). This, perhaps, was, up to that time, one of the finest bulls imported to British America. The animal now standing at the head of the Government herd is Prince Alfred (12436), a massive, well-fleshed bull, with good ancestry. His g. g. sire Baron Oxford 6th (33075). Sir Wm. Lawson bought at one of the Holker sales from the Duke of Devonshire, at a large price. He left a lot of fine useful calves at Brayton, but he sickened, and while men slept, died. In the morning he was lying stark and dead when Sir William came to the Home Farm. With a regretful look the baronet struck off the following epitaph:

"Here lies Baron Oxford 6th,  
Quiet and cool,  
Bred by a Duke, and  
Bought by a fool."

Shorthorns have been imported to this Province from the old country at various times in the last sixty years, but the pedigrees were not properly preserved, so that our registry is unable to date back without flaws or missing links for a longer time than twenty-five years. In one instance since then a magnificent animal was imported of undoubted purity and high breeding, as he himself and all his progeny have shown; but his pedigree in part having a shadow of doubt as to its connectness, *debarred all his offspring from registry*. This action shut out many of our best, and no doubt pure-bred animals; but anticipating that the time would come when such pedigrees would not stand the ordeal they are now being subjected to, we decided to resist all blood that might possibly have a contaminating influence in our records. We have, however, found in one or two instances, to our cost, in breeding Shorthorn cattle, that if a bull is deficient in stamina, shape and constitution, he is the most unworthy of his kind to gain access to a herd, particularly if he is one of those with a long, high-sounding pedigree, for in that case he is much more impressive as a sire, and will transmit his weak and deficient qualities to a greater extent than one not so highly bred. A bull of this description was bought and brought here a few years ago from one of your most noted breeders in Canada, a gentleman who perhaps thinks, notwithstanding his long experience in

cattle breeding, that it may be unnecessary to breed from animals of a thoroughly sound and robust constitution providing their pedigrees show many crosses of the fashionable and aristocratic strains.

Were it possible for the executive committee of the combined herd book association now arranging to so thoroughly review the pedigrees of Canadian Shorthorns, to devise some possible plan by which the miserable, weak, ill shaped brutes, as many are, with pedigrees whose length may be lost in the mists of the past, and whose constitutions are diseased by tuberculosis, could be deprived of admittance to the new herd book, they, it will be conceded by many, would accomplish more for the benefit of this race of cattle than by excluding, as it will be necessary to do, many good animals of merit, through having a short or imperfect record of their breeding.

CHAS. C. GARDINER.

Charlottetown, P. E. I.

Mr. Gardiner has done the public and our selves a kindness by calling attention to the misconceptions the quoted sentences (unwittingly on our part) would undoubtedly convey. It is our object to state only truth—unvarnished truth—that all parties may be fairly dealt with. We are very much pleased to know that so much has been done in Prince Edward Island to promote a high standard of registry for Shorthorns.

### Farming and Stock-Raising Matters in Amaranth.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Thinking that a few notes on agriculture and improvement in stock-raising, from this part of our Province, would interest many of your readers, I thus assume the responsibility of writing a few jottings to give this township a representation in Canada's great and best stock paper. As a stock-raising district Amaranth is unsurpassed, on account of its great adaptability for pasturage and haymaking. The rearing of horses and cattle is principally the main object amongst our farmers, especially beef cattle, some of which would do credit to Toronto's great Industrial Exhibition. Car-loads of fine cattle are being constantly shipped from Waldemar *via* the Canadian Pacific railway, to Toronto, Montreal, and elsewhere. The monthly cattle fair held at Orangeville (the county town of Dufferin), and adjoining this township, is a grand sight to witness. Dozes of cattle are driven to this fair within a radius of 20 miles, and generally disposed of at good figures. Orangeville is noted for its great fair, as thousands of people flock into it on fair-day.

Of course there is still a great need for improvement in all the branches of farming and stock-raising. But time, which changes all things, will assuredly bring intelligent progress in these branches of agriculture. The scientific farmer who reads farm journals, whose ambition is to rise above the present state of things, continually improving his mind, is the man who will succeed in his calling and profession.

I think your JOURNAL ought to be in the hands of, and highly prized by every intelligent farmer in the Province. A number of them round here take the JOURNAL. I give mine to farmers to induce them to subscribe, and probably some of them have already done so.

J. MCPHERSON,

Waldemar, Ont.

### The Journal as an Emigration Agency.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—I am highly pleased with the JOURNAL. I believe it would do more to induce the right kind of emigrants to come to this country if only one-tenth of the money expended in Government pamphlets, and in paying good-for-nothing agents, was properly invested in such literature as the CANADIAN LIVE-STOCK JOURNAL, and placed in the hands of farmers and mechanics of Great Britain. In conversation with a new arrival from Scotland the other day, I asked him if they put much confidence in these Government pamphlets. His answer was, "They wadna look at them; they were 'a lees.'" I showed him a copy of the STOCK JOURNAL. After he had perused it awhile, I said to him, "Would they believe that?" "Oh yes," he replied, "that's a reality."

Ormond, Ont.

P. R. McDONALD.

### The Aberdeen-Angus Polls of Kinnoul Park.

We have known men try to construct a building with materials that were defective, and though they labored with the most patient assiduity, they had a very imperfect structure in the end. We also knew a drunken mason once—a good workman when not under the influence of the destroyer of our country, who had been provided with good materials, and yet, owing to the slap-dash way in which he flung together the stones, and threw in the untempered mortar, the job when completed was anything but creditable. That cellar wall is crumbling now, and is to-day banked with a wall of manure to keep out the frost. Although pure-bred herds not a few are grounded in a way not very dissimilar from one or other of those methods, and with results by no means satisfactory, it was far different with the Kinnoul Park herd. In its formative process no bad materials were used, and those that were selected were handled in no slipshod way, hence it is that in the show-rings of Ontario, although pitted against grand good herds of which any country might feel proud, since the commencement of their show-yard career, some four years ago, they have proved invincible.

This herd, a short account of which was given in the December number of the JOURNAL, 1883, and on the first page of which is a sketch by our artist of the prize-winning bull imp. Chivalry (1765), by Challenger (1260), is owned by Messrs. Hay & Paton, of New Lowell, a village on the Northern and North-western railway, in the County of Simcoe, which, along with the railway station, may be said to have been built upon Kinnoul Park, an undulating domain of some 1,200 acres of new lands, which is being rapidly reclaimed from the unsightly traces of the axe of the lumberman, and which, in the strength of its virgin richness amply repays the husbandman for his toils. Being well watered, and, further, owing to the variety of its soils, it is admirably adapted to the purposes of stock-production.

Our visit to New Lowell was made in January, perhaps the coldest month in the year. We had pictured to ourselves stables with stone basements, but found that these are only as yet under way. What was our amazement to find the splendid blackskins that we had so often admired at our exhibitions, and which we had half expected to see covered with blankets, standing in wooden sheds, where we would almost have trembled for the well-being of our Shorthorns; but we should mention that they were all or nearly all loose in box-stalls, singly or in groups. In one of these groups were four beautiful two-year heifers, fed solely on oat-straw, with the exception of a small meal ration once a day to keep the system in tone, and yet they sustained a good covering of flesh, which well preserved the characteristic absence of abrupt angles on the make up of this wonderful breed.

The temptation to say something about each individual of this herd, which is so completely destitute of culls, is strong, but we must deny ourselves, now that the pressure upon our columns is so great. But we cannot pass them all. Here is Mary 2nd of Knockiemill (5877) [2] imp., bred by John Morrison, Knockiemill, Turriff, Scotland, got by Black Prince of Brucklay (943), and now but five years old, although she has produced her third calf. She has an immense body, such as would gladden the heart of the great McCombie if he were alive to-day, supported on fine limbs which one may encircle in the hand, and sustaining a finished head splendidly put on. Her eye is full, her expression mild, her back a table-land, her crops full, her tail nicely set on, her quarters finely

rounded and her breast simply enormous, while we look in vain for any approach to coarseness in this unrivalled cow, whose career in the show rings has been one succession of triumphs, which certainly backs up the claim made in her behalf by her owners, that she is "the most superb animal of the Aberdeen-Angus breed on this side the Atlantic." Her two-year-old daughter Mary 3rd of Knockiemill [5] by Chivalry (1765), like her dam, has been a great prize-winner, carrying first last year at Toronto and Collingwood.

A worthy companion of Mary 2nd of Knockiemill, is Flower of Knockiemill (5875) [1], also imp., five years old, bred, too, at Turriff, out of the dam Florence 2d of Knockiemill (4132), of Montbletton ancestry, and bred by the sire Black Prince of Brucklay (943). She is considered, and we think justly, the most valuable breeding animal in the herd. She is the dam of Black Judge [1], Emma of Kinnoul Park [61], Miss Charcoal [80], and Charlie of Kinnoul Park [46], the winners of no less than ten first prizes and medals in 1885 at our leading exhibitions. Emma of Kinnoul Park [61], by Chivalry [1765] has captured all the reds wherever shown, and is just a marvel of symmetry and beauty. Miss Charcoal [80], grand on the crops, like the true Polls straight up in the shoulder, and with the Roman nose of the Prides—a lovely calf—was also first at Toronto at last exhibition. We have mentioned but a few of the choice females, and must hurry on to the review of the bulls.

The two bulls in service are Black Judge [1], imp., from the dam Flower of Knockiemill (5875), and the sire Jury Twin (1274), and Fairleader [42], bred by Messrs. M. Boyd & Co., Bobcaygeon, from the sire Lord Dundreary of Ambleside (2946), and the dam, Fair Lady of Collithe (4525). Black Judge commenced his wonderful show-yard career at Toronto Industrial, 1883, where he took first prize as a calf. In 1884 he was again first at Toronto and Collingwood, and at Toronto and London, 1885, he took first, medal and diploma, as best bull of any age, and stood "at the head of the invincible five which carried to New Lowell the Grand Dominion premium, and for the fourth time in succession the championship of the Dominion." Fairleader calved 10th September, 1883, was first at Toronto and Collingwood, 1884 and 1885. He is a stylish-looking bull, very taking to the eye.

Of the seven young bulls Baron Kinnoul [43] calved 7th October, 1884, is the prince amongst bulls of any breed. With a wild, roguish looking eye, the plumpness of a stalled Angus, the nimbleness of a deer and the playfulness of a kitten, his red coat covering a mellow hide is simply beautiful. Our mind went back to the green fields of Hillhurst where the head of Mr. Cochrane's red Polls graze, as we gazed at this strong specimen of an Angus bull, which carried the first in his class at the London Exhibition.

A goodly number of grades were at Kinnoul Park, the get of an Angus bull and common cows, which, as usual, were minus the horns and mostly black in color, carrying good, large, bulky bodies, which but confirms us in our opinion that the bulls of this breed may be used for crossing for beef purposes with much success.

In Britain the question has been much discussed of late as to the propriety of debarring breeding animals from showing when carrying a great load of flesh. And in London last autumn, we heard the opinion freely expressed, and by experienced cattlemen, that the prize herd of Messrs. Hay & Paton were dangerously fleshy. We determined on going to New Lowell to investigate the record of the champion herd, as breeders, which we did most carefully,

and with the result that not one animal of the prize-winning group has thus far failed to breed with the utmost regularity, so that we are shut up to one of two conclusions—either that Mr. Davidson, the careful and skilful manager of this herd, possesses a knowledge of his art beyond that of most cattlemen, or that the Aberdeen-Angus cattle can stand that sort of thing better than the other breeds. There may be a complement of truth in both surmises.

Since our visit to Kinnoul Park, Mr. T. C. Patterson, of Eastwood and Toronto, came that way in search of Angus cattle, and although a stiff rate was put on that would have proved prohibitory to many, it did not prevent Mr. P. from taking away four of the females, including Miss Charcoal [80], and Mary of Knockiemill [5], and the Bobcaygeon bull Fairleader [42]. This draft, however, is more than replaced by a contingent of imported animals and their descendants from the herd of Messrs. Hiram Walker & Sons, of the Essex Stock Farm, Walkerville, Ont.

The newly issued catalogue of the Kinnoul Park herd has just been placed in our hands. It is a model of its kind, evidently compiled with the most scrupulous carefulness, and artistically arranged, reflecting much credit on all concerned. It contains the pedigrees of twenty-six females, of which fifteen are imported, and the nine bulls already referred to, and to which further allusion is also made in the advertisement in this issue, and there is a complete list of the prize winnings of the herd.

From the introduction, which is also a short outline of the history of the herd, we clip the following: "For the improvement and selection which has resulted in the present magnificent Aberdeen-Angus breed of cattle, we are indebted mainly to one man, whose bust we must place in the central niche around which all other breeders and importers must be placed. We need not say that we allude to the late Mr. Hugh Watson, of Keillor. It is admitted on all hands that he was to the Aberdeen-Angus breed what the Collings were to the Shorthorns. The late Mr. McCombie, of Tillyfour, placed him in the front rank of those who distinguished themselves as breeders and improvers of the 'doddies.'" Again, in reference to selection, "In 1882, when we imported the foundation of our present herd, we made a point of having the animals themselves along with their pedigrees. It may be remarked by some of our friends, that the pedigrees in the following catalogue of some of our best animals are not conspicuous by their length, and, in explanation, we may say that we looked twice at the animal for once at the pedigree. We are very far, of course, from despising a long pedigree, when the animal carries his pedigree 'on his back,' but when it is difficult to see where the pedigree comes in, then the less we have to do with such, we like them the better." The success which has attended the Kinnoul Park herd, both abroad and at home, are the best illustration of the correctness of the above remarks.

The JOURNAL has supplied a long felt want, and stock owners appreciate the services in that direction. We wish you success in your unceasing efforts towards the improvement of our Canadian stock interest.—M. Cook & Sons, Aultsville, Ont.

"I highly appreciate your effort to elevate the standard of agriculture to its proper position. Of all the agricultural papers I read, none of them meets my views so well as the LIVE-STOCK JOURNAL."—Hugh Davidson, Peterboro.

"I think the cuts of your JOURNAL alone are well worth the money."—W. Bishop, O. A. C., Guelph.

"Yours is a very handsomely got up paper."—Henry Doering, Milverton, Ont.

### Breeding Light Horses for Exportation.

BY S. B. FULLER, WOODSTOCK,  
(Third Paper.)

Should you object to the thoroughbred as a mate for your mare, and should you want a big carriage horse, put her to a well-bred, well put together active coach-horse, with *extra* action. Such a horse shown at the Provincial Exhibition last fall at London took first prize and the diploma for carriage stallion. He was an imported brown coach-horse, which, if I am not much mistaken, will make his mark upon the stock of this country.

To get a first-class hunter I think you will need the service of a thoroughbred horse, upon a good sized half-bred mare, herself the get of a thoroughbred, though this is not absolutely necessary, provided the mare has more than an ordinary sprinkling of good blood in her, it may be from her dam's side.

Now, there is no reason that I can see why the smaller class of mares, if stout, sound and strong, should not be mated with the thoroughbred to produce a cob of fine breedy appearance that will sell well in any market. When the foal or such an union does not turn out a *cob*, it is pretty sure to be such a colt as will sell for lighter harness work, or for saddle use for lighter riding. This class of horses, if they show breeding and quality, are sought after to a very great extent.

Such horses as I have described are in great demand for exportation, and are sought after by buyers at prices that pay the breeder well. Let any one go out into the country within a radius of fifty miles from his home, and try to buy such horses, sound, and the right age for the market. He may perhaps be able to pick up three or four, but cannot get together even half a car load in a week's time, at least from the farmers. The trouble is, to my mind, that the farmers persist in breeding such a mare as I have described to some large, heavy draught stallion, it may be a Clyde, a Shire, or a Percheron. These stallions are all very well in their way, and I admit that the heavy draughts have been a most important factor in the export horse trade of Canada, but keep them in their proper place. They should be put to mares of their own stamp, and they will then get horses of 1,400 to 1,600 lbs., which will bring good money in any country. But mate one of these big horses, weighing perhaps a ton, with a clean-legged mare, of say 1,100 lbs., and what is the result? The mare is not big enough to carry the foal properly; it is in some way cramped, and it grows up a big, useless, "slab-sided" horse, high on the legs, weak in the muscle, and unfit for either heavy loads or a decent pace.

Many of our farmers are to-day crossing small mares at from 900 to 1,050 lbs., with these big horses. The result is, they get a poor, ill-shaped horse, light below the knee but thick in the pastern, a liberal sprinkling of hair, perhaps, light in the middle, big in the head, light necked and only saleable at street-car prices.

Again, many farmers and breeders, if they have a mare that can move fairly well upon the road, will breed her to some trotting horse, with the idea that she will produce a Maud S. or a J. I. C. If trotters can be bred to go really very fast, they are, of course, very valuable; but it costs a *lot* of money to develop a trotter. If they are not fit to win a race, what good are they? The offspring, as a rule (though it has exceptions), are short in the neck, and have not the vim required for saddle and carriage purposes. As roadsters they are good, when too much is not put behind

them, but for a long journey give me the produce of the thoroughbred.

Do not wait until your mare is old and worn out with hard work before you breed her to the horse of your choice. If you have what you consider a really first-class brood mare, in all respects, commence to breed her early in life. I do not mean of course that you should not work her at all on the farm or road. It is better in this way to ascertain what her temper is. If her temper is bad, her progeny are likely to inherit this serious failing. I am sorry to see so many of our best brood mares going out of the country to be bred from on the other side of the line. Sell all the geldings you can. Sell all the poor mares you can, but keep all the good mares here. We need them all. Good brood mares of proper stamp are scarce, but they will not be so in a few years if our farmers will breed to the right stallions. Care of course must be taken to see that the colt is kept growing, especially the first year. You need not "stuff it," but you may feed it liberally. Keep it well housed on winter nights or on very stormy days, but let it have plenty of exercise in a lot or paddock during the day.

The winter before the colt becomes three years of age is, I think, young enough to begin to break him to harness or saddle work, but you cannot begin the halter-breaking process too early. Before he is weaned it is well to get him to lead about quickly on the halter. Make him in every way to feel that you are his friend, not his enemy, and you will soon find he will want to do all your requests to the best advantage.

Four years of age is as young as you can expect to market such stock as I have described, but if a year older so much the better, they will bring more money.

As to the longevity of the thoroughbred as compared with that of the heavy draught, as stated not long since in the *Canadian Breeder*, it is a rare case to find a heavy draught stallion of any great age in Canada, whereas it mentions such instances as Harper being now twenty-five years of age, Thunder, (twenty-seven; Judge Curtis, and into the United States, at the age of seventeen. Imp. Reveller, now owned near St. Catharines, as being eighteen years old and yet getting first-class stock. The deduction is legitimate, that if thoroughbred stallions live so much longer than heavy draughts, so will their progeny.

### De Brave Hendrick.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

In your January number was a short editorial on an article, which came out in an October number of *Mark Lane Express*, which read as follows: "It appears that Oudorp, North Holland, had not hitherto been visited by American buyers to the chagrin of some of the cattlemen there. One of these, a long headed Dutchman, hit upon a happy plan for bringing them. He bought a good first class bull, The Brave Hendrick, used him for a time in his herd, showed him at the Amsterdam Exhibition in 1884, and won first prize. He soon found an American purchaser, who won many prizes on him after taking him to the United States, when at once the country around Oudorp was scoured by Americans in search of the offspring of The Brave Hendrick, to the great satisfaction of his previous owner."

To the breeders of Holstein-Friesians the moral of this interesting picture is "go thou and do likewise."

As further information about this noted bull, whose offspring can now be found from New York to Kansas, may interest some of your readers, I send you the following:

De Brave Hendrick, 199 Netherland Herd Book, was calved in 1880, at Helder Zuid Schermer, North Holland, and was registered July 19th, 1882, by his owner, Sir De Jongh, of Oudorp.

This year, 1882, he was a prize winner at Gouda; in 1883 competing with sixty bulls, he won a prize at Alkmaar, and at the International Exhibition at Amsterdam, in 1884, he won the highest honors.

In America he has never competed for prizes, consequently has not received them, as stated by mistake in the *Mark Lane Express*.

No doubt these prizes have greatly increased De Brave Hendrick's renown, but aside from his individual merit, which is of the first order, his offspring almost invariably inherit his characteristics, which indicate the strength of his blood.

Through admiration of his get, my attention was first attracted to this justly famous bull.

As inspector for the registry of stock in the Holstein herd book for several years past, many animals which I had marked as of superior excellence were shown by the breeders' certificates to have been sired by De Brave Hendrick.

Doubtless many Americans were greatly impressed with the strong points of his get, which with the honors awarded him in the show-ring, induced them to scour Holland for his descendants.

The Dutchman reaped the benefit of his superior intelligence, and so should every breeder who goes to the pains and expense of bringing into his neighborhood an animal of extraordinary merit. He deserves success and the cordial support of his associate breeders.

After having acquired a sincere respect for De Brave Hendrick as a sire, through inspecting scores of his get, seeing him for the first time (in quarantine at Garfield) was no trifling pleasure.

With due consideration of the merits of the best bulls I have seen during the past twenty-five years, De Brave Hendrick impresses me as being one of the most perfect models of the breed with which I have ever met.

DUDLEY MILLER.

Oswego, N. Y.

### Morgan Horses.

BY JOHN DIMON.

(Fifth Paper.)

In breeding this, the best breed of light horses in the world for all purposes, we find by examples in the foregoing articles on this subject, that when an out-cross of the family is required, the thoroughbred or high-bred mares give the best results. In the summer of 1885, not having a Morgan stallion at hand, I bred my Morgan mares to a thoroughbred stallion, a grandson of the renowned imported Leamington, out of a winner of the Queen's plate. The full results remain to be seen, but I feel confident that this cross will prove a success. I have heretofore stated in this series of papers that the Morgans are a general purpose breed. This is most emphatically true. In New England we find them doing the work on the farms, doing livery business; used as family horses, and they are much sought after as roadsters and gentlemen's driving horses. Before the advent of railroads, when teaming and traveling was all done by horsepower, we find some of the best and most durable horse-teams in the land composed of these same little Morgans. For stage purposes their equal for hilly countries has never been found. As a case in point, allow me to state an old-time incident occurring some forty years since. A party of gentlemen made a trip to the White Mountains. After having made the customary examinations, they arrived late one evening at the Fraconia "Notch House." Here they learned that a stage would leave for St. Johnsbury the next morning on its last trip for the season, it being then late in the month of September. This being the route our party preferred taking, they engaged passage at once. Consequently the next morning six good sized individuals besides the driver, with about an ordinary horse-load of luggage, were stowed away in the rugged-looking Concord stage-waggon, to which was attached a pair of medium sized horses, as follows: The near one, a gelding of a dark chestnut color, about 14½ hands high, very closely and compactly built, with a clean, small head, and exceedingly

small ears set pretty wide apart, and very lively and active. The other animal was a gray mare somewhat heavier, and considerably taller. She had a fine long hip and a good hind leg, well-shaped shoulders, and was on the whole a very fine animal. The party all objected to starting with so small a team, which they deemed quite unable for the load to be drawn over such a mountainous and hilly road; but, as remonstrances prevailed nothing, the passengers fell to discussing the chances of getting on with their "infant team," as they called it; from this, to discussing the relative merits of their nags. One of the party, whose fancy had been taken by the brilliant but pleasant eyes, that stood out large and full, the ever-restless ears and the strong, muscular loins and quarters of the chestnut, proposed to "back the horse," much to the amusement of most of the party.

When at length the driver gathered up the ribbons and gave them the word, the mare dashed ahead as if determined to pull the driver off his seat. The horse struck a short nervous trot without fretting, and kept steady at it. The mare took the whole thing for the first half mile almost entirely by the bit, and the travelers had a hearty laugh at the judgment of the man who had "backed" the chestnut horse. A half hour passed and with it a good five miles of the road. By this time bets were not so freely offered on the mare; she had commenced to slacken her pace, perspired freely, moved unsteadily, with an occasional toss of the head, that plainly told she was beginning to lose her interest in the trip. As to the horse, not a muscle moved save those of his ears. Thus they kept on for 14 miles, which was the end of the first stage, the mare nearly exhausted and panting with heat and exhaustion. Here they were to have a fresh team, but owing to a horse being very lame from a recent sprain, the driver changed but one, and drove the chestnut horse through to St. Johnsbury, some 14 miles further. This seemed to the party rather hard, but the horse did not appear to mind it in the least, and up the long hill leading to St. Johnsbury he pressed on at the same short nervous trot which he had maintained all the way. On leaving the stage at the little horse that had achieved such a wonderful task, and were told by an old horseman who knew, that the little chestnut was a son of old Sherman Morgan, that he was 18 years old, and had been running constantly in a stage team for 11 years.

The Morgan horse, though a small animal, is universally noted for his great bottom and hardness, as well as for compactness and roundness of form. He is a very sprightly animal, and is far more sagacious than the generality of horses. They are remarkable for their great strength in proportion to their size, and for their powers of endurance, bearing up under hard labor that would break down many heavy draft horses. As roadsters they usually take the premium wherever shown. At the United States Agricultural Society's Fair, held in Boston, Mass., in 1855, three premiums were offered for roadster stallions, and all three went to Morgan stallions. Four premiums were offered for stallions for general use, four years old and upwards. All of these were awarded to Morgans. To stallions for general use, three years old and under four years, two premiums were offered, one of which was awarded to a Morgan. To stallions for general use, one year old, there were three premiums, two of which were awarded to Morgans. Morgan brood mares and fillies at this same fair stood just about the same.

In my next I shall continue the story of their success at fairs outside of N. E., where they have met the enemy on his own ground, and may also say something of their success on the trotting turf.

Windsor, Ont., March 9, 1886.

### Piggery.

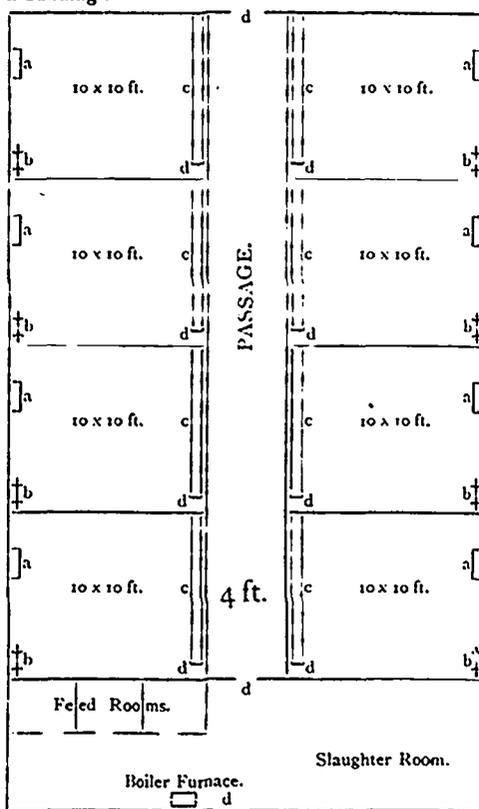
EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Would you or some of the readers of the JOURNAL give me a plan—or some information about building a piggery for fattening hogs through the winter, say a building with six or eight pens, and also handy for killing. Would a stone basement be healthy?

W. E. LYONS.

Dundas, Ont., Feb. 19, 1886.

Mr. J. C. Snell, of Edmonton, Ont., has furnished us with the accompanying plan, which represents the ground floor of a piggery, which he says they have found to answer all the ordinary requirements of such a building:



a Window. b Trap door. c Trough. d Door.

The sketch will explain itself. The dimensions are 50 x 24 ft., providing for 8 pens, each 10 x 10 ft., with a 4 feet passage in centre, lengthwise of the building, from which the feed is poured into the troughs; a door from each pen into the passage makes it very convenient for moving or changing from one pen to another, which in a breeding establishment is almost indispensable. A window in each pen is made to slide into a "pocket" for protection in warm weather, provides ample light, and a door from each pen into yard or pasture gives the necessary accommodation for exercise.

The space marked for feed-room, boiler and slaughter room, would probably need to be larger than we have indicated, if the main object is to be fattening and slaughtering. The size and number of pens may be modified to suit the circumstances. The partitions between pens and passage need not be more than 4 ft. high, which gives a light and airy appearance. We recommend making the building high enough for a loft above for storing straw for bedding, which may be put down through trap doors into the pens. If built to run out from the barn, the loft may be filled direct from the threshing machine, which will save extra handling.

A stone basement will be all right if the building is isolated, but we would not advise a piggery in the basement of a barn where other stock is kept. A wooden building on a stone foundation, well lined inside, and closely battened outside, can be made very comfortable.

"I will do my best to get new subscribers for your JOURNAL, you may rest assured of that, as I like it better the longer I get it."—James Robb, Co. Ottawa.

### Veterinary.

#### Black-Leg, Black-Quarter, Quarter-III.

BY F. C. GRENSIDE, V. S.

These are synonymous terms used to express one form of a large class of diseases named charbon by the French, from the coal-black appearance of the tissues which are the seat of the prominent diseased changes, as the leg or quarter of an animal suffering from "Black-quarter." This disease has been described by professional and lay writers centuries ago, and has been observed in every county of the globe, having committed serious ravages in some of them. Canada has perhaps suffered to a less extent than any other country, but, occasionally, in certain districts, a few young animals are lost.

These charbonous diseases, in some form or other, attack all classes of animals, from the highest to the lowest, the wild as well as the domesticated; and the different forms in which it manifests itself have given rise to a variety of names, as applied to the affection in different species, as well as in those of the same species. In the ox tribe there is a form of this disease in which there are no local signs visible externally, but on examination after death the spleen is found engorged with a tarry-like blood, in addition to a similar effusion into the bowels. Splenic apoplexy is the term applied to this form of the malady. Blain, black-tongue and gloss anthrax are names used to express the existence of this affection when the local lesions are in connection with the tongue; so that splenic apoplexy, black-tongue, and black-quarter are the same disease differently manifested.

What determines the variations in the character of the disease, it is difficult to explain, but black-quarter, the particular phase of the malady that we are now considering, is almost always confined to young cattle of eighteen months or two years old, and in high condition; in fact the best of the herd are generally first attacked, so that it would seem that where the process of nutrition is most active, or in other words, where there is most blood, is the likely situation for the development of the local signs of the affection.

#### THE SYMPTOMS

of quarter-ill are first of all dullness, shown by slowness of movement, lopping of the ears, and a heavy expression about the eyes, the appetite is lost, rumination suspended and the bowels inactive. There is tenderness about the loins, back, neck, head, brisket, or upon one or more of the limbs, in which case the animal is lame; but there is always more or less rigidity of movement. Swellings promptly appear in the regions indicated as being the seat of tenderness, and then the sensibility in them diminishes, they become cold, emitting a crackling sound when handled. The vitality in these parts becomes entirely lost, and if death does not rapidly ensue they slough off and leave large sores. A peculiarity of this disease is the sudden manner in which it makes its appearance, and its rapidly fatal termination in many cases. The first warning of its onset in a herd is often the finding of a dead animal or two in the morning; while in others it may assume a less rapid course, and they become unthrifty, lose flesh, are hide-bound, with arched back, and stiffened movements. The skin in these cases is harsh and covered with spots, and if no remedial measures are taken, the graver symptoms become manifest and the animal dies.

#### CAUSES AND NATURE.

The literature on this subject is most extensive and very confusing to one not conversant with the latest

researches and revelations concerning it. The celebrated Pasteur has immortalized himself by demonstrating beyond a doubt the essential element in causing the class of diseases of which the one we are considering is an example. Many observers had detected minute particles of a rod-like shape in the blood in great numbers; but the relationship which they bore to the disease had not been made clear; some considering them the cause of the trouble, while others looked upon them as the result of the diseased action. It was determined by Chauveau that similar specific particles caused cow-pox and farcy. He came to this conclusion by separating them from the blood or other fluids in which he found them present, and tested their virulence by inoculating animals with them, and was successful in producing the disease to which these germs belonged respectively. The crucial test was also resorted to of taking the fluid from which these particles were extracted and inoculating other animals. No disease resulting from this trial, the conclusion was justly arrived at that some contagious diseases at any rate had solid particles for the essential element in their production. It was also determined that these particles have life, for some of them move; and they all re-produce rapidly if suitable pabulum is provided. Not only do they multiply in the blood, but chicken broth or beef-tea affords them food for re-production, and if successive generations are thus produced, they still retain their virulence.

We may accept it as an established fact that these specific particles, or minute organisms, are the essential cause of the disease called Black-quarter, but it is not easy to explain the exact conditions that are necessary to bring them into active operation in producing this disease. The question suggests itself, of whether these germs exist everywhere, and only require certain conditions to bring them into activity as disease producers, or whether under certain circumstances they are generated anew or without any pre-existing progenitor. But this brings up the question of the spontaneous generation of the germs of disease, which has not yet been settled.

There are, however, certain conditions which seem necessary to bring this disease about, both as regards the animal that becomes the victim, as well as the surroundings of it. It was mentioned already that it is generally in the most thrifty of a herd that it first appears; and when they are on the luxuriant pastures, particularly where a change has been made to such from a previously spare diet; but associated with these conditions, undrained land, where water has a tendency to stagnate, or where there is much decomposing vegetable matter, as in marshes, and particularly when the subsoil is tenacious and consequently opposes filtration. It is when a dry, warm period succeeds a moist one, or when evaporation is most profuse, that this malady shows itself generally. June in this country is the usual time when it makes its appearance.

It is found to be contagious, and readily communicable by inoculation, either designed or accidental, as through an abrasion in the skin. It is also transmitted through the medium of the digestive organs, either by consumption of the fluids or solids of a diseased animal. Many human beings have lost their lives by absorbing the virus of this disease from an animal, and it produces what is called in the human subject "malignant pustule"—a very fatal affection.

#### PREVENTION AND TREATMENT.

It is not until after the occurrence of a fatal or well-worked case of this malady that the cause will be likely to be sought out; but it will be likely to be connected with some of the conditions already indi-

cated as favorable to its development; so that the young cattle should be moved to higher and dryer quarters, and where food is scarcer. In some serious outbreaks, housing or removing to somewhat distant pastures has proved effective in controlling the trouble. The insertion of a seatose smeared with catharidine ointment, into the dewlap has received the approval of some of the best authorities. Any carcasses of animals dead of any form of charbon should be carefully disposed of, burning being the most effectual means. If burying is resorted to, it should be done deeply and in a place unfrequented by animals, if possible. Cattle that have been subjected to the cause of the malady should have three-drachm doses of Chlorate of Potash administered three times a day in some food; and those that have developed the disease, and in which the course is less rapid than usual, may also have the potash as directed, with forty drops of caloric acid added to each dose; and if they refuse to eat—which is likely—it should be poured down in a pint of water. The local swellings should be freely fomented with very warm water unless they have lost their vitality, in which case local treatment will not be of much avail.

#### Inquiries and Answers.

EDITOR CANADIAN LIVE-STOCK JOURNAL.  
ABNORMAL ENLARGEMENT OF UDDER.

DEAR SIR,—Will you kindly enlighten me through the medium of the JOURNAL on the following: I have a Jersey heifer coming two years old next May. Last August she was served, and should be due to calve next May. Could not have been served at any other time without my knowing it. About the first of the year she began to make a bag and has continued to do so very fast, and now (Feb. 18th) has an udder larger than that of a good many cows. Yesterday morning I found the left hind section of her bag caked a little, but I did not do anything to it until noon, when I found it no better. I gave it a good rubbing, and in doing so I accidentally drew some milk from that teat. It came extremely easy and was a shade watery. Afterwards I took about half a cup of milk from the same teat, but none from the rest. In the evening I gave it another hand-rubbing, applying a little spirits of alcohol and camphor. This morning that section of her udder is like the rest. She has a very fair appetite. Have been feeding her per day about a quart of bran and a pint of corn meal with cut hay moistened, and given in two feeds, with a taste of salt, a few roots, and all the cut hay she will eat. She is in good condition for a Jersey, and goes out to water once a day. I would like to know, 1. Am I feeding her right? if not, how should this be done? 2. If she comes to her milk in spite of me, will there be any bad results? 3. Does she need any medicine of any kind? 4. If the udder cakes badly, what is the correct treatment?

St. John, N. B.

S. S. HALL.

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

The course of feeding you have adopted is a very rational one, but under the circumstances would withhold the grain. I do not think any harm will result if she comes to her milk, but if there is any sign of caking, draw off the milk frequently and hand-rub; and if this do not dissipate the congestion, rub three times a day with a solution of the solid extract of Belladonna, one part to eight of warm water, and withhold half the food for a day or two. Immediately after calving it would be well to give one pound of Epsom salts and ten drops of croton oil dissolved in a pint of warm water, with three pints of cold water added, and given in one dose. This treatment will tend to ward off milk fever.

The heifer will probably soon calve.

"I am so well pleased with the JOURNAL, that I would not like to do without it."—Francis Masson, Craigsholm, Ont.

"I like the JOURNAL very much, it merits a liberal patronage from the farmers of the Dominion."—E. E. Martin, Canning, Ont.

#### The Farm.

THOSE who are enthusiastic in their work usually succeed the best. They give a closeness of attention to details that is thought unnecessary on the part of others, and it is just this that gives them so often a large measure of success. The successful farmer must not grow weary in attending to the endless little details connected with his work. Unimportant and trifling in themselves, in the aggregate they have an important bearing on the returns of the farm. A water-furrow left unopened may cause loss ten times greater than would have been the cost of opening it. A low place in a fence that is left unattended may involve the destruction of a good share of the crop, and so of a hundred other things. In stock-keeping equal, if not more constant vigilance is required. One may tend a flock of sheep fairly well through most of the year, and yet from a little lack of attention during the lambing season may lose disastrously. The farmer who means to take front rank must stand all the day upon his watch-tower, and sometimes even in the night.

#### A Commendable Work.

Judging of the tree by its fruits, and this is always a safe method, the work of rescuing destitute children by the good Dr. Barnardo and those associated with him, has proved a cheering success. Already 1,734 children have been placed in Canada by means of this agency—880 within the last four years—and out of this number not one of the girls has turned out badly. Of the boys two have proved dishonest, and two developed hopelessly lazy and indolent. This is certainly a splendid showing, and speaks volumes for the nature of the work. Nor are the results detailed above accidental, as the children sent out have either been orphans or rendered destitute at an early age. They have been received into the institutions connected with the work in England, and have received there a careful, industrial and Christian training, and have not been sent out to Canada (unless when sent young for adoption) until they have satisfied those in charge of them that they were prepared to become industrious members of society. In a country such as ours where labor on the farm is so scarce and dear, both indoors and out, any additions to the staff of laborers of the right stuff should be hailed with welcome. Parties wishing to secure the help of any of these rescued ones should apply to Mr. Edward Duff, Dr. Barnardo's Distributing Home, Hazel-brae, Peterboro, Ont., at the same time forwarding a certificate of their standing from their minister.

But the material aid that may be the result to the country from the prosecution of this work is the lowest view that can be taken of it. Its brightest side is this—it is a work of mercy calculated to render perishing immortals happy in time and eternity, and therefore it should be encouraged. Contributions will be thankfully received at the above address, or by Dr. Barnardo, home for working and destitute lads, 18 Stepney Causeway, London, England.

#### Gentlemen Farmers.

For such is the name imported from the old country for that class of farmers who may, as a rule, be said to be farmers who work with their coats on, as contrasted with those who work with them off. The nobility of agriculture has been acknowledged since the days when Virgil wrote his Georgics, and it was the highest praise to an ancient Roman that he cultivated well his own spot of ground. The old generals returning from the wars were restless till they

once more got upon their farms. It was when this ceased to be the case, when the better-born gave way to effeminate luxury and to the idleness of the Orient, that the glory of Rome dwindled and her empire fell. The dignity of agriculture has been, and ever will be, unquestioned. The nobility, clergy, and gentry of Great Britain have ever been devoted to husbandry. The English race is therefore a manly one. King George III. used to boast that he was a farmer; and if the portraits of that day are to be trusted he looked like it. The progress of agriculture, the food supply, the rotation of crops, the improved methods and machinery, furnish inexhaustible subjects for discussion among the learned and energetic. No farmer, properly so called, has any business to be a mere hewer of wood and drawer of water. He is wasting his talents if only doing what he can hire a man to do for a dollar a day; and the man he hires is a laborer—not a farmer—so long as the day's work is his highest and only consideration. A well-known agricultural implement maker, living not a hundred miles from Ayr, Ont., was one day thus accosted by a friend: "Well, and how has the farm being doing this year, John?" "Well, friend, it has made a good living, I guess, for my hired man!" It is a common thing to hear So-and-so sneered at as a book-farmer, the impression being conveyed that he is therefore a mere theorizer, wanting in practical knowledge. Now practical knowledge is essential, but, like the top crosses in a prize Shorthorn, the books crown a good foundation with indispensable quality. Is it the stone-mason or the educated architect under whom he works, that ranks highest in the building trade? Is it the intelligent manager of a factory or the man that runs the engine who stands first in the manufacturing world? It won't do to scoff at gentlemen farmers. They are the moneyed recruits to ranks that would be poor indeed without the patronage of capitalists, willing and able to pay high prices for the best of its kind. Here in Canada it is all too seldom that the retired merchant, the prosperous lawyer, or the gentleman with leisure embarks upon the sea of agricultural speculation. It is too often the case that young men, with parents of more or less means, and themselves hating the restrictions of office rules or the exactions of a life devoted to the counting-house, are put at farming, without one single qualification for it. Because they are able or willing to do nothing else, they are to be made farmers. This is a delusion that soon becomes self-evident, and the last state of the young man is worse than the first. The fact is, that he who would succeed as a farmer, must first be a practical judge of work, and able to direct all operations on a farm. He must, as in other walks of life, to ensure success, be sober, honest, industrious, judicious, and an early riser. He must also study his business and be abreast of the times; more than all, he must have trading instincts, and know thoroughly how to buy and sell. He must have executive and administrative talent. Too many young gentlemen sent to farming fall as far short of these requisites as do the unambitious, slow-going born farmers, who plod on following the plough and teaming wood as if they had no higher sphere of action within their reach. Whether the young gentleman for his ignorance, or the born farmer for his stupidity, is most to be sneered at, it were difficult to say.

It is our opinion that the really progressive and successful farmer—how many are there in each township?—would have been successful in any walk of life he had chosen to follow; and it is certain that in no walk of life does success, coupled with an intelligent and unselfish devotion to those public duties entailed

by it, command more respect from the persons composing the community in which that success has been attained. The gentleman farmer who is not practical, and is merely fooling away money in the manner that happens best to meet his fancy, is useful to his neighbors, if not to himself. He is navigating a pleasure yacht instead of a schooner carrying freight and passengers. He buys liberally and of the best, and his trouble comes when he has to sell surplus stock. His only refuge then is in an auction, and if his sheep and cattle are properly fitted he ought not to be a serious loser, though severely handicapped by the breeder, who being also a tradesman, has known how to sell at private sale. He sets an example in buildings, tree-planting, fencing, painting, draining and the like, which, if not directly remunerative to himself, carried out within more economical limits, is of benefit to his practical neighbor, who looks for an immediate money return for his outlay. For many reasons the gentleman farmer should be encouraged, and by nobody more than by those too apt to sneer at him.

### Tree Planting.

This cannot be commenced too soon, nor can it be prosecuted too assiduously. Our timber supplies are largely gone, and with them the protection that the country enjoyed from the icy winds of Hudson Bay and Labrador. One cannot make a permanent investment to better advantage. If property is to be handed down to a coming generation, it cannot be left in a better form. Timber of various kinds will command prices that cannot be low in coming time, and the country will have the further advantage of the protection which these forests will afford.

Prof. Brown, in an article which appeared in the JOURNAL last October, threw out the suggestion that the Council of Agriculture and Arts take up the work, and add this also to the many useful labors in which they are engaged, with the view of advancing the material interests of the Province. We hope that the board will consider it, and engage in the work in the way that may seem most feasible, and that is most likely to secure the desired end.

Were it not that we are all so bent on reaping ourselves the results of our labors in the form of material gain, there would be no difficulty in persuading many to engage in the important—shall we not say duty? About its ultimate profit there can be no question. An oak was felled in Gellems, Monmouthshire, England, in 1810, the bark of which brought £200, and its timber £670. We cannot hope to grow oaks like that, but we can grow good ones, good enough for the ribs of an English ship of war.

The tastes of each generation differ, therefore it would not be wise to plant trees of only one kind, especially of the fancy varieties. There will always be a taste for good, strong durable oak so long as wooden spokes are used in wagons, and wooden tongues are used in farm implements, while there may not be the same desire to possess walnut lumber a hundred years hence as there is to-day. The mighty pine, so adapted to the general uses of the carpenter, will always be in demand; and the evergreens, as the Norway spruce, that form a barrier against the winds which are a source of so much discomfort.

There are thousands upon thousands of acres upon the Ottawa river and its tributaries from which the timber has all been removed, and which, owing to the stony nature of the soil, is not profitable for farming purposes. We see no better use that these large tracts can be devoted to than the re-production of timber. If live-stock were kept out of them, they might soon re-clothe themselves, and with all the crowding

in numbers so characteristic of eastern Ontario and Quebec forests, which ensures a straightness of growth favorable to the uses of the lumberman.

We have, we think, as stated above, fastened on the standing obstacle that lies in the way. Most of our farmers are needy and cannot afford to wait for the returns. But some of them can, and for the sake of kin and country we hope they will. We know of no more enduring earthly remembrance than ordinary men can hand down to coming generations than the fact that they planted the forest giants that have chanted requiem over their departed dust for many a passing year.

### Swindling Agents.

If agents meet with a very ungracious reception from farmers to whom they are not known, they must not take it too much to heart. There is a reason for this expression of displeasure and incivility, which is the outcome of the scandalous treatment that the farmer has in so many instances received at the hands of agents. The farmer is above all men naturally inclined to be civil and hospitable, and where the opposites of these are manifested, depend upon it there is a reason.

Designing agents, it seems, have pitched upon the farmer as their especial prey, and like an army of leeches, they have not only deprived him of much of his substance, but they have also aroused the impatient feeling with which he so often views the approach of an agent. Why they have thus singled the farmer out, they know well themselves. The eagles never come where there is no carcase, nor will leeches draw where there is no blood. Agents never angle where there are no fish, nor will they waste a bait upon those which will not bite. Hence it is that the lawyer and the merchant escape, while the unsuspecting, honest, undesigning farmer swallows the bait whole.

Certain lightning rod agents are abroad in the land, and are playing their pranks. One of these, not long since, in showy garb and with bland demeanor accosted a farmer at the plough, who had just erected a new house, and offered to put up rods upon it free of cost, by way of an advertisement for his rods. To this the farmer assented. The agent asked his name, apparently as an afterthought, and proceeded to write it, but purposely as was afterwards evident, allowed the wind, to blow this paper along with some others onto the ground. Gathering them up he handed what the farmer supposed was a blank sheet to him, and asked him to write his address himself, as he, (the farmer) would do it more exactly. This done, the same afternoon lightning-rods were laid down to the value, it was alleged, of \$150, and immediate payment demanded, as it turned out the farmer had signed a cash order for the above amount on delivery.

Be it far from us to injure anyone doing a legitimate business, but we cannot at the same time stand tamely by and see our farmers plundered by wandering vagabonds, who should have the brand of Cain upon them, without standing up in their defence.

How long is it going to take our farmers to learn the lesson which their children are taught at school, that lightning rods are no protection beyond a distance of eight feet from the rod? The measure of their worth may easily be decided from this statement. The scandalous odium which the vendors of these have so often in the past drawn upon themselves, is a striking comment of their worthlessness. They have been long tried now, and if they had proved themselves capable of doing what has been claimed for them, they could be sold readily enough in a legitimate way.

Nor does the remedy consist in treating agents *rude*.

ly. Every man upon this earth has a claim upon every other man to be treated *civily* by him till he prove himself undeserving. This obtains in virtue of the common brotherhood of the race, and of the obligations which flow from it. Agents are now a mighty army, an indispensable medium in carrying on the barter of the world, or, to put it in another form, a medium which at present, at least, the barter of the world will not consent to do without.

The simple remedy is just for the farmers *not to allow themselves to be bled*. A firm negative should be enough to an agent of good manners; where it is not efficacious, a gesture in the direction of the highway, and the resumption of work will usually suffice. Nor need the farmer waste his precious time with the agent listening to his endless yarns. He can simply excuse himself and go on. The merchant and the lawyer do not waste five minutes with the agent who is not wanted, and why should the farmer? Above all they should never, never, never sign a document without knowing its full import.

### First Prize Essay.

ON THE BEST METHOD OF UNDERDRAINING THE DIFFERENT SOILS OF ONTARIO, THE COST AND THE PRACTICAL BENEFITS RESULTING THEREFROM.

(By the Editor.)

(Continued from March Journal.)

Our essay calls for information (1) *On the best method of underdraining the different soils of Ontario*; (2) *the cost*; (3) *the practical benefits resulting therefrom*. Regarding the nature of the information asked by the divisions 2 and 3 there need be no uncertainty, but we frankly confess we are not quite clear as to what was in the minds of the framers of the subject when they use the term "best method," as applied to the underdraining of the different soils of Ontario, nor have we any means of certainly divining. And yet this is just where the bull's eye should be pierced; here it is that the spring should be tapped by the lateral which is to convey its waters to the main drain of the whole argument. If the term "best method" has reference only to the materials used as best adapted to the different soils, then the subject is very much narrowed, as we claim that we have already shown that tile is incomparably the best material on the grounds of cheapness, efficiency and durability, which latter quality alone gives them an immense advantage over every other form of material. But if the clause referred to include the details of construction, the subject is greatly widened. We are inclined to take this latter view, and shall proceed accordingly.

The surface of Ontario is made up of clay, clay loam, sandy loam, sand, black loam, gravelly soil, stony ground and rock, with a limited amount of swamp, bottom land and springy ground, which latter are included in one or other of the varieties of soil first named. Swampy land is usually made up of black loam, and springy land is oftener sandy in its texture. When sandy soil rests on an open subsoil of considerable depth, it does not need draining; when very light and resting on other subsoils, it will not repay the draining. Gravelly soil, porous a long way down, will not give back the outlay, and soils in which both the surface and subsoils abound in large stones had better be left alone.

The principal soils of the Province are clay, clay loam and sandy loam. These largely predominate in many of the counties, and in area, clay loam exceeds the others. Although this latter is sometimes found resting on a subsoil of gravel, hard pan, etc., it oftener rests on one of clay more or less porous, so that if we

give a hurriedly detailed description of the "best method" as yet known of draining this class of land, we shall then have a fair type of the method to be adopted in draining the other "different soils" of the Province, for really the variations in mode are far fewer and less important than one would imagine at first thought. The material to be used is the same—tile; there are not many variations in mode of cutting, ditches, and fewer in the mode of laying the tiles.

We shall give, therefore, in brief detail what we consider the best method of tile-draining clay soils. This we shall regard as our leading main, and dovetail into it the laterals of divergence relating to any differences of procedure that are necessary in treating of the "different soils" other than clay, something after the fashion in which Messrs. Boynton & Co., of New Jersey, unite them with their junction pieces. We shall thus try and keep out the silt of all extraneous reference, and after constructing the submains relating to "cost" and "advantages," conduct them to the one grand outlet, the magnificent return in Canadian gold, which is the certain and speedy outcome of the judicious underdraining of our soils.

And here we pause to remark that in giving the details of method we are indebted not a little to that inimitable work, "Draining for Profit and Health," by Waring, a book that every farmer in Ontario should not only read with the utmost care, but the contents of which he should talk over with his sons, both in the house and in the field.

Of the considerable number of Canadian farmers whom we have consulted, and with whom we have corresponded in order to ascertain their practice, we may mention the names of James Thompson, of Whitby, one of the few pioneer tile-drainers of Ontario; John Dryden, M.P.P., Brooklin; W. Heron, Ashburn; Messrs. C. and W. Graham, Ottawa; W. Rennie, Toronto; S. Rennie, Milliken (Markham); A. Hood, Hagerman (Markham); F. Green and F. Malcolm, Innerkip; and J. McMillan, Constance (County Huron). Where we have occasion to refer to the concurrent testimony of these men and of others not named here, but whom we shall refer to further on, we shall do so by the use of the phrase *Canadian Practice*, as these are representative men, and living, as several of them do, in places widely apart.

#### LAYING OUT AND CONSTRUCTING THE DRAINS.

We shall treat of these together. Underdraining a piece of land requiring it is like making a deposit which gives a splendid return every year and where the security is absolutely secure; but only on the condition, first, that the work be economically done; and second, that it be well done. The first of these conditions qualifies the laying-out of the drains, and the second the construction. When the work is done properly it will last a very long time, but if injudiciously performed (not necessarily in a careless manner), it is only a source of sorrow to the spirit. Mr. Dryden speaks of a farm in his county where the draining was done by contract without the proper supervision, which in certain parts has been *made a quagmire* in time of wet, through means of the wretchedly laid drains.

By laying a system of drains out properly, a saving may be effected in the length of them, amounting in some instances to *one fourth*. Where it is undertaken, then, on a large scale, it would be money well invested to call in the aid of a practical draining engineer, not a professional ditcher, who too often finds reasons for placing a large number of drains. The best thing, however, in ordinary practice, is to secure the assistance of some neighbor who has had experience in the work in laying out the drains, until that

day dawn so full of promise, when a considerable number of our young men shall have learned at least the outlines of practical engineering.

It is better to make a *map* of the land before the work is commenced, containing the proposed route of all the drains, after having first carefully taken in the contour of the land. Where this has not been done before, it should certainly be done after, that when any repairs are needed the drains may be easily located.

The best instrument, perhaps, in ascertaining the *levels* is the ordinary telescope level used by railroad engineers, especially when in the hands of one of mechanical tastes. Some use the ordinary level and straight-edge. The level in favor with Mr. Dryden and others "is made by inserting a common glass level or tube in a piece of hardwood which will not warp or twist, nor become easily bruised by occasional hard knocks. The wood must be planed perfectly smooth and true, and should be eight or ten feet long, one and a quarter inches thick, and say six or eight inches broad. The glass is firmly imbedded in the centre or edge of the wood, so as to be below or even with the surface, that the sight may not be impeded. If desirable the whole may be firmly bolted to a strong stake, which may be driven in the ground at any desired point."

In laying out the drains the location, depth and finish of the *outlet* should be most carefully considered, and also the course and depth of the *main* drains, the *sub-mains* and the *laterals*, which in practice may be indicated by placing stakes at certain points. It is more systematic usually to ascertain where to locate these by actual measurement. It is well to weigh the provision that should be made when necessary for carrying off the water of *springs* or that flows over rock that may lie near the surface, or for the prevention of the accumulation of silt, and to give due thought as to the kind and size of tile to be used.

The *outlet* should, where at all practicable, be placed at the lowest point. A good strong floor of stone should be placed below. All the better if the bottom stone is a broad flag extending some distance forward to receive the flow, and up the drain to prevent undermining, as drainage repairs are costly and particularly unpleasant. Stones can then be built up around the tile and extending a little distance up the drain, and forward beyond the end of the tile. Brick will answer the same purpose where stones are not at hand, in which case they should be laid on a stout, broad plank. The end tile should be of glazed work or vitrified ware, with earthenware grating, which is movable, as manufactured by Messrs. Boynton & Co., of Woodbridge, New Jersey, and should extend over a step, to show perfectly the action of the water. The number of the outlets should be reduced to a minimum, owing to the cost of constructing them properly and keeping them in good repair. For this reason, amongst others, open ditches are objectionable, even where there is a strong flow of water. Where the land slopes both ways toward a depression, channelled by an open ditch into which the drains flow, it necessitates the construction of a large number of outlets. The open ditch is also a serious injury to tillage, and is not in any sense ornamental. It is better, then, unless there is a very strong flow of water at certain seasons, to lay one large main instead. Canadian practice is divided in reference to the matter. The names of Messrs. Thompson, Dryden and Rennie are arrayed against the open ditch.

The *main* drains should lead up the lowest part of the valley, be of sufficient depth to secure a fall, and the utmost pains should be taken to have the grade

uniform in the different sections; when it is desirable to reduce the size of the bore in the ascent, a decreasing tile, as manufactured by Messrs. Boynton & Co., may be used as the connecting link, which interferes less with the uniformity of flow than the method of old-time practice. Formerly main drains were placed sufficiently low to admit of their receiving the water from the sub-mains and laterals at the top, but now, by the use of the Messrs. Boynton's junction piece, now made in Canada, which is a part of the pipe itself where the union takes place, these are made to enter near the bottom which accelerates the flow, and thus reduces to a minimum the accumulation of silt at the points of intersection, which so troubled the ditcher at these points under the old system.

The *sub-mains* should ascend the lesser valleys. Where the valley is wide, there should be two of them, the course of each skirting the base of one of the hills, and with one or more laterals between them, if required.

(To be continued.)

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### Managing a Summer-Fallow.

The following is my plan for making a summer-fallow: First, draw out your manure as it is made from the stables, in a sleigh, direct to the field you intend to fallow. Spread as you draw it. I have a good many reasons for hauling manure in the winter: 1st, it gets work along which otherwise would have to be done when the busy season comes; 2nd, the manure is not lying in the barn yard leaching out, and likewise in the way; 3rd, the manure is a great deal better when applied fresh from the stables.

Having the manure out and properly distributed, we will proceed to plough the ground, or "break it up," as some would say. 1st, take into consideration the number of acres you have to plough; 2nd, how soon your hay wants cutting; 3rd, any other pressing work, for I want the weeds and thistles left as long as they can be, and likewise the manure to push them on very luxuriantly, so as to make quite a mass to plough under. I want the thistles well out in blossom.

Now, hitch up a good team (or three horses if not very stout), to some good jointer plough, taking care to have it in first class order, with a good chain of right length fastened to the off horse's whippletree, and to the beam of the plough just behind the coulter. If the man to do the ploughing is a tobacco chewer, he will please see that he has an abundant supply in his pocket. Thus equipped, proceed to the field and plough the head lands first, by so doing you will get all the thistles cut off, for when I undertake to fallow a field, I want every thistle, every stone, every stick, every stump or root out, and a clean job. Now roll the head land, and harrow and roll, and so on till it is thoroughly pulverized. Be sure and leave it smooth by rolling, so that it will be better to turn around on.

Commence on the far side of the field to plough. Strike in with a full depth furrow through the field, turn around, putting the off horse in the ploughed furrow, thereby turning back again the newly ploughed furrow. The reason is to thoroughly cut off every thistle, and so keep on, taking every precaution to turn all over nicely, and likewise cut every thistle off. Have your roller in the field, and roll before noon and night what you have ploughed, for it is easier to crush when a little moist. When all ploughed, harrow thoroughly, then roll again, then use a scarifier (I use one of De-ward's scarifiers, made at Stony Creek, Ont., a splendid farming implement), until all is as fine as a garden. You may then commence your hay. Mornings when the dew is on you can spend an hour or two on the

fallow, or after a rain, when the hay is too wet. So whenever you see a sign of a thistle coming, *cut it off*, for in this lies the secret of killing thistles. Work it over every week, or at the longest every two weeks the season through. On or about the 10th of September sow in drills, going north and south, with good, sound, clean seed, about 1½ bus. to the acre, and you will have cleaned your field, and if the weather is favorable will have a good crop of wheat. I would advise sowing about six pounds timothy seed to the acre in the fall when the wheat is sown. If is a sure catch when sown then.

In the spring would recommend sowing about six pounds alsike clover seed in addition. I have never failed to get a good stand of clover when handled in this way.

I took a piece in 1884 that was noted for its tall thistles and hard clay. An old resident remarked, "West, what are you going to raise on these great, hard, white lumps, and among these thistles?" Well, I will tell you what I got off this very piece of ground, and I worked it just as I have tried to tell you in this article: I got 22 bushels for every one I sowed, and a splendid stand of timothy and clover.

W. A. N. WEST.

St. Catharines, Ont.

### The Dairy.

MR. DAVID NICOL, of Catarqui, stated in a paper read before the Inverary Farmers' Club, that "the most important consideration for the practical dairy-man must ever be as to how he is to obtain the best returns from the amount of food consumed." All-important as is the principle thus laid down, it receives comparatively little attention. The great rage of to-day is for large yields only. There is no difficulty in demonstrating that if one cow produces 10 lbs. of butter in a week and another cow 12 lbs., but the latter requires one-third more food than the former, the one producing the smallest weekly yield is the more profitable of the two. More attention should be given to the cost of production rather than to the quantity produced. This it is that makes us anxious to have the Jersey-Holstein-Ayrshire-Native test at the Ontario Experimental Farm, where the hay and all the food can be accurately weighed. No farmer can take the trouble to do this, unless a gentleman of fortune, at least on a large scale. When this point is determined, we shall have made a wonderful advance in dairying. Instead of arriving at conclusions as to profit by going around Cape Horn, we should reach them by the Isthmus of Panama. The man who shall give this knowledge to the dairy world will be a public benefactor.

### The Western Ontario Creamery Association.

This association is now a reality, having been organized in Guelph on February 23d, and has commenced a career that, we trust, will prove a source of much material gain to our Province. Mr. John Hannah, Seaforth, was appointed President; M. Moyer, Georgetown, Vice-President; Aaron Wenger, Ayton, Secretary-Treasurer; and Messrs. G. Browning, Formosa; J. N. Yinkman, Wellesley; E. Miller, Parkhill; J. T. Brill, Guelph; and H. D. Tye, directors. The name of the association is as above, and an annual meeting is to be held at a time and place not yet fixed upon. The directors are to secure the services of speakers and essayists for the benefit of this meeting, at an outlay of not more than \$150. Mr. Moyer and Mr. Browning were appointed a dep-

utation to wait upon the Government with a view to secure the necessary aid to enable the association more fully to carry out the object sought. It was also the opinion of the meeting that it would greatly tend to assist the cause of creameries if the services of a suitable instructor were secured.

The deputation appointed to wait upon the Ontario Legislature did so forthwith, along with others; of the officers, and framed a bill of incorporation, which will be on the statute-book in all probability before this reaches our readers, as the deputation was favorably received. After incorporation a meeting will be called for the re-appointment of officers.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### The Holstein's Defence.

(Concluded.)

As beefers the Holstein certainly takes a rank which none of the other dairy breeds can ever hope to attain. Large, vigorous, hardy, with rapid growth and early maturity, combined with unequalled milk, butter and cheese production, are qualities which are not to be under-estimated. Prof. Brown to some extent admits these qualities in the Holstein, when he says: "In some respects we see in them our typical mixture of butcher and dairyman—in the males especially."

The *London Farmers' Advocate* for October says: "Of all the dairy breeds the Holstein is the best for general purposes." Unbiased testimony coming from a source not at all prejudiced in their favor, is certainly flattering.

The milch cow competition at the Toronto and London exhibitions was referred to at the time in your columns. Mr. Fuller has at considerable length in some of your contemporaries sought to make capital out of it for the Jerseys. Mr. Dudley Miller, in a letter to the *Montreal Dairyman*, shows the absurdity and inconsistency of many of the results arrived at by Prof. Brown and alluded to by Mr. Fuller.

In referring to the same subject in an editorial, the *American Dairyman* says:

"What are we to think of the prize Jersey test? The cow receiving the highest honor, made an average of 8.81 at the first trial, and seven days later she fell to 5.75 (lbs. of butter to the 100 lbs. of milk). We are very sorry Mr. Fuller did not see proper to make some explanation of this remarkable change, and we would like to know what the manager of a factory would do with such a case, and whether or not such often occur. If this test churn was properly conducted, and we presume it was, is it a safe guide? Is it not too erratic? Would not a good dairyman discharge a milkman who answered one day that a cow would make 8.81 lbs. of butter from a hundred pounds of her milk, and seven days later change his figures to 5.75, even though he knew the man was only guessing at the amount? Could not Hazard tell closer than this by the escutcheon? Mr. Fuller is a practical man and advocates practical work in the dairy, and we would, therefore, like to know his opinion on the subject.

"In relation to the cheese test, Mr. Fuller says: 'The next operation was the determination of the yield of cheese curds in decimal proportions. This test covered two days.' This statement is not sufficiently explicit to form any idea as to how the determination was made, but presume the professors used the most scientific means at their disposal. Now let us look at the result again. The Holstein is one of the oldest and best established breeds of thoroughbred cattle, and yet out of eight specimens there was a variation in wet cheese curd per 100 lbs. of milk from 11.25 to 20.00. This is simply astonishing.

"The prize Jersey again showed a percentage of 20.60 in cheese curd at the first trial, but seven days later she shrunk away to 16.80. How is it possible to account for this vast difference in any way that does not emphatically condemn the system by which the test was made, or else prove absolutely that cows' milk, under many conditions, is so variable that it is

useless to attempt to prescribe any rules of percentage in connection with it."

Dr. E. Lewis Sturtevant, whom I have already quoted, in concluding a criticism on Mr. Fuller's contentions, says in the *Jersey Bulletin* (the organ of the A. J. C. C.): "I can give you from my own observation evidence equally as good as this of Mr. Fuller's, and yet which contradicts. . . . I have spoken frankly as you desired, and perhaps not in accordance with your own views of what will be useful to the Jersey interest, but I believe that the Jersey is too good an animal to require to be bolstered up by any irregularities of logic."

After such a mass of evidence, coming from so many eminent sources, all of an apparently reliable nature, would not the dullest witted dairyman become skeptical as to the value of Prof. Brown's exhibition tests, and are they worth the paper they are written on?

Prof. Brown opens what he calls the closing controversy as to which breed the farmers of Ontario shall adopt for dairy purposes. This shelving of all the other breeds except the favored one the professor chooses to take under his patronage, may not be such an easy task as he imagines. It may be the closing controversy, but I venture to predict that if he persists in his efforts to banish the Holstein from Ontario's soil, that it will be a long one, and that a score of years from now she as well as some of the other worthy but less favored breeds will still have hosts of admirers. And why not? There is certainly room for all. It is only the narrow-minded and bigotted partizan who cannot see anything good outside of his own herd or favorite breed. The generous rivalry that has existed between the different breeds, since the introduction of the Holstein, has stimulated the various breeders to obtain greater results, and thus the standard of the dairy has been raised throughout the whole country.

The Holstein breeders make no war on any of the other breeds, nor do they seek to disparage any of the results achieved by any of them, but on all proper occasions are glad to act in harmony with them and do their part towards building up the great dairy interests of the country. They pre-eminently believe in the doctrine of the survival of the fittest, and for the future of their favorite breed they have no fear, as they will continue as they have in the past to successfully tide over every wave of opposition that can be brought against them, for they have come to stay.

JOHN M. COOK.

Aultsville, Ont., Jan. 6, 1886.

### Holstein-Jersey Controversy.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—In your last issue Mr. John M. Cook, the prominent Holstein breeder, with the intention of endeavoring to weaken the effect of the competitive tests at the London Exhibition, where the Holsteins demonstrated themselves the worst of all dairy breeds for milk, cheese and butter combined, cites reported cases to show their very great excellence. Nothing is easier than this. All Mr. Cook has to do is to select such statements or reports as are favorable to the Holstein and reject those that are unfavorable. What do such extracts prove in opposition to open competitive tests in the hands of disinterested people? merely that Mr. Cook's literature is extensive, and that he has some system of retaining or procuring such one-sided published reports, to be produced to suit the occasion.

He first sets out the statements of the Holstein breeders, Messrs. Yeomans & Sons, as to the exceedingly rich milk of their herd of cows. Is De Vières one

of the cows? Has Mr. Yeomans ever had any of the butter so produced analyzed? Because, unless I am misinformed, the butter produced by De Vières at least, would hardly be classed as what is known as even fair butter.

I am reliably informed of a direct comparison of the milk of one of Messrs. Yeomans' cows, exhibited by him with Jersey milk, set side by side for 12 hours, in which the former produced a "thin white scum on top" and the Jersey milk produced almost  $\frac{1}{2}$  inch of "golden-colored cream."

In the *National Live Stock Journal*, page 249, of 1885 issue, is a report of a Cooley creamer agent, acquiring the milk from a Holstein herd at a then recent State fair in a western State, in the vain hope of demonstrating the cream-raising capabilities of his creamer; the cans used were 18 inches high, 8 inches in diameter. Fresh milk was put in, the cans filled with Holstein milk the evening of the first day, and proper temperature was retained. On the following morning the cans were opened, and from the milk of this "rich breed" (the Holsteins) an inch and a quarter of the thinnest kind of thin cream was all that had been able to struggle to the top of the eighteen inches of milk. It was allowed to remain four or five hours longer without any change, still, "an inch and a quarter of thin cream and no more." Thinking there might be an error somewhere, the Cooley Creamer agent obtained another supply of Holstein milk with the same result, and knowing that if the reputation of his creamer was to depend upon a breed which refused to give cream, he was leaning on a broken reed, he procured milk from a Jersey herd on the grounds, and in the same cans, and in 12 hours setting (and in fact for the two or three days the Jersey cream remained in the cans), at no time was there "less than one-third or  $33\frac{1}{3}$  per cent. of cream," or six inches from the Jersey milk to  $1\frac{1}{4}$  inches from the Holsteins. I have never seen this statement contradicted, and I believe it is incapable of contradiction.

Mr. Cook quotes the *American Dairyman* and Mr. L. A. Hardin, who, if I mistake not, is the same Mr. Hardin who was editor of the *American Dairyman*, and who wrote the following in that paper, January 21st last, with reference to the Holstein records. This article was commenting upon a letter of Mr. James Long in the *London (England) Farmer*, in which Mr. Long severely criticises Mr. Dudley Miller's statements with reference to the performances in America of Holsteins. It is as follows:

"That is a hot article from the pen of Mr. James Long in the *London Farmer* on Mr. Dudley Miller's extravaganzas. Mr. Miller makes a great mistake when he relies for his facts upon the bare statements of men who refuse to give the slightest data for the phenomenal records they claim for their cows. Americans as well as Englishmen know facts when they see them, and are fairly able to tell a fairy tale when they read it. We entirely agree with Mr. Long when he makes the following somewhat heated remarks: 'There is no reason to suppose that the American climate or the American breeder has any more influence upon the production of milk than the work of skilled breeders and feeders of England and Holland, and until it is shown that they have, we in the old country must decline to credit the monstrous statement of which this is an example, i. e., that a herd of Holsteins in New York State has made an average of 15,000 lbs. of milk in a year. Everybody knows what herd we refer to, and everybody is coming to the conclusion that the whole thing is a put up job. The most honorable gentlemen in this country connected with the dairy have addressed respectful communications to this firm of nurserymen who own the so called herd of phenomenal performers, but have so far failed to get a single response. While this fact, of course, does not prove that the whole thing is a fraud, yet it throws such a cloud of doubt over it that we would not give it credence for a moment. It is all rot. We had not heard this remarkable statement from Mr. Miller's pen, that Echo weighed in milk condition 1,900 lbs. and gave over 23,775 lbs. of milk in a year. All we can say, that in our opinion Mr. Miller has simply been repeating some old Holstein breeder's wind stories. In this country we all know that the Holstein-Friesian Association has formulated a most admirable set of rules for governing the testing of Holstein cows, and these gentlemen of vigorous imaginations could easily call the corroborating testimony of

an official tester if they were inclined to do the fair thing. In fact this unofficial test business with a dozen men to make hooks about it, is just enough to make an honest breeder sick."

Mr. Long says that at the Amsterdam International Exhibition he was present in the capacity of a judge. In class 123 for the cow "giving the most milk" there were 60 entries. The first prize cow gave 35 litres to his knowledge, which would be about 30 quarts, and this was at the great exhibition. In the class for the cow "yielding the best milk, and not less than 18 litres per day," the winner gave only 18 litres, or 15 quarts. These were the best cows in the class excepting one which had calved 12 months previously. Mr. Long says that he formed one of the twenty British members of the commission who made a tour through the department of North Holland, where the best milking cattle exist. Subsequently, at the invitation of two provincial burgomasters, he went into the Provinces of Oberjissel and Friesland. In every case visiting a large number of farms where from five o'clock in the morning he saw the actual work in progress. He says:

"I afterward showed, in articles to the *Field*, what the Dutch cows are really capable of doing, and that so far from their milk being rich, it was admitted in every instance to be extremely poor; for if the farmers did not say such in so many words, they did what was equally clear—gave me the percentage of butter to milk. In order to prove this further as regards Dutch cows in England, it would be only necessary to show the analysis of their milk in every successive year from the establishment of the meetings of the British Dairy Farmer's Association. There is scarcely an instance in which the fatty solids reach 3 per cent., the majority being, I believe, less than 2.65."

"To come, however, to Mr. Gilbey's trial. The two cows purchased by this gentleman, and which had calved in June and July, were brought to England, one taking a first prize at the Dairy Show, and also proving the largest milker in the same show, although she lost the milking prize on account of the poverty of her milk. It should be noted that points were allowed her on account of the time which had elapsed since calving. In the trial two Jerseys were placed beside the Dutch. During the first fourteen days the four beasts were at grass, but received at milking time hay and straw chaff, pulped cabbage, half a peck of bean meal, and half a bushel of barley meal among them. The Dutch consumed in the fortnight 1,140 lbs. of food, and the Jerseys 766 lbs. The cows were housed at night, and ate what hay they chose. Of this the Dutch consumed 155 lbs., or in all 1,295 lbs. of food, while the Jerseys consumed 140 lbs., or in all 906 lbs. The former averaged  $27\frac{1}{2}$  quarts of milk daily, and the latter  $15\frac{1}{2}$  quarts. Now, however, comes the result. The larger yield of the Holsteins consisted simply of water, for their butter weighed only 23 lbs. 13 c., while that of the Jerseys weighed 28 lbs. 3 oz. During a second trial the four beasts were stall fed. They received mangold, hay and straw chaff, wheat and bean meal, and cabbage daily. The Dutch ate 1,140 lbs., and gave 365 pints of milk, the greatest yield being 35 pints in the morning and 20 in the evening. The Jerseys consumed 755 lbs. of food and gave 194 pints of milk, the heaviest yield being 18 pints in the morning and 11 pints in the evening. The butter-yield was 13 lbs. 3 oz. against 10 lbs. 1 oz. given by the Dutch. There is then no comparison between the Jersey and the Dutch for butter-making."—(James Long in the *Farmer and Chamber of Agriculture Journal*, London, England.)

What a wide difference again there here is between the "claims" of Holstein breeders and in open exhibitions and also the comparative tests side by side between the Jerseys and the Holsteins. Surely neither Messrs. Miller nor Cook can claim that these two Holstein cows, tested by Mr. Gibley, were not fair representatives of the breed. They certainly were not ordinary cows, because they show that they were far better than the average.

Mr. Cook, in speaking of the test of Mercedes, does not tell of my vain attempts to induce Mr. Wales, her owner, to place her in public competition with Mary Anne of St. Lambert in the hands of disinterested witnesses. If Mr. Cook, in remarking: "the official tests of the single cow wherein she beats all comers," refers to Mercedes, I beg to differ with him, as in the Breeders' Cup competition no official test was ever made of Mercedes; or, if so, was never published in the stock papers.

Mr. Cook cites Prof Arnold as evidencing the good keeping qualities of the Holstein butter. What does Professor Arnold say of the Jerseys as cheese-makers? It has been contended that no one but myself and Professor Brown ever discovered their qualities in this respect, yet here is what Prof. Arnold says: "The business of the Jersey cow is emphatically butter-making; her milk, however, is rich in cheese matter, and contrary to the general belief, if I may judge from samples of cheese from Jersey milk which have been recently sent me, is capable of making as fine cheese as it does butter. It requires less milk to make a pound of cheese than it does of the milk of natives, about 8 of milk to 1 of cheese. It is a new feature worthy of note in the uses of this breed of cattle, that their milk can, without the waste of butter matter, be converted into a strictly fancy cheese, and as rich in fat as Stilton. Analysis of cheese from pure Jersey milk, recently made at Cornell University, has shown over 40 per cent. of fat."

Mr. Cook devotes considerable space to a report between a native and a Holstein, basing the profit on the sale of the milk. There is nothing in the report to show what quantity of fat and casein (or total solids) there was in the milk, and until that is given, no proper deduction can be drawn as to the value of the milk for cheese or butter, but it merely shows that a large quantity of fluid at considerable additional cost was given by the Holsteins.

I have given these quotations to show how easy it is to find clippings or extracts which favor one breed as opposed to the other, and I could quote an almost unlimited supply in favor of the Jersey. What I content we require to arrive at the respective merit of the two breeds is competitive tests between the breeds conducted by disinterested parties.

For the past five years a series of experimental analyses have been conducted by that eminent specialist Dr. Aug Voelcker, under the auspices of the British Dairy Farmers' Association at their shows at Islington with the following results of solids, as it relates to these two breeds:

	Fat.	Total Solids.
Jerseys.....	4.26	13.6
Holsteins.....	2.97	11.8

or with the Holstein such a lacking in solids as would in many of the American cities under their laws be condemned as "watered milk," as would be the case under the analysis as made by Prof. Brown at the Agricultural College. A higher authority than Dr. Voelcker cannot be found in England or on the continent, and the result of his tests for five years of Holsteins, above cited, Lear out Prof. Brown's analysis as to the total solids very closely. The Shorthorn in these tests made an average of within 2 lbs. of milk in 24 hours as compared with the Holsteins, while in fat the Shorthorns averaged 3.79, and in total solids 12.7 to 2.97 fat and 11.8 solids of Holsteins; yet Mr. Cook claims the Holsteins as the great general purpose cow. In these tests of five years duration at Islington, as also at London, Ont., when subjected to public test, the enormous yields of milk of Holsteins vanish, as the Holsteins average 46.99 lbs. of milk to the Shorthorn's 44.91 for the five years.

In Mr. H. M. Jenkin's much prized contribution in the *Royal Agricultural Society Journal* he cites (as special example of the milk-giving qualities of the Holsteins) a dairy of 500 cows at Holeby, Denmark, producing 9 quarts per head per day. Another of 36 cows averaged 648 gallons (2,592 quarts) in the year 1866, and 661 gallons (2,644 quarts) in 1872, and in a third case, 650 gallons (2,640 quarts) each per annum is given. This would be an average of about 660 gallons (2640 quarts) per annum. While this is remarkably good showing, it is far from fulfilling the extravagant claims made for the Holsteins on this side of the water.

Apropos of this, I shall look with some interest to the reply to my former question to Mr. Cook, namely, whether these cows who are reported to have made such prodigious milk yields were farrow during the whole or the greater part of their tests.

I have asked Mr. Cook and Mr. Miller to point out (1) wherein these tests were unfair to either breed; (2) to state whether the cows tested were or were not fair representatives of the breeds.

If Mr. Cook or Mr. Miller claim either of these points then let them arrange to accept my challenge for another test between the breeds. Mr. Cook accused me of not including the United States in my challenge. In the *Montreal Dairyman* I have stated

my willingness to have him or any of his friends in the United States accommodated, but up to the present have heard of no action therein. Surely it cannot be that Holstein breeders prefer to permit the reputation of their breeds to rest on statements of interested men rather than submit them to public or open competition. It would seem that such was the case at the Michigan State Fair, held at Kalamazoo in the fall of 1885, where dairy cows were judged on their merits and performance in the pail, and where the milk was set in glass jars and publicly displayed: All the other dairy breeds on exhibition submitted their milk, but the Holstein breeders at this exhibition refrained from doing so, as did the Holstein breeders at Toronto abstain from entering their stock in public competition against the other breeds for milk, cheese and butter.

I think I am not far amiss in believing that the public will prefer to judge by the result of the impartial tests at the Agricultural Farm, at the London Exhibition, and the five-year test of Dr. Voelcker at Islington, England, especially when the Holstein men by allowing my challenge to remain unaccepted, virtually admit that they fear the result of another public test, when they admitted as much at Toronto by not allowing their cows to be tried, although they had been entered; and when they declined at Michigan State Fair to permit the milk of their herds to come under public and impartial observation.

If the Holstein men of Canada claim their cows excel the Jerseys for "milk, cheese and butter combined," let them accept my challenge and have another test, producing the best Holstein. If they do not, I shall claim it is because they know and feel it will only confirm the fast growing opinion that the Holsteins are a failure as a dairy cow.

VALANCEY E. FULLER.

Oaklands, Hamilton, Ont.,  
March 22d, 1886.

**Holsteins vs. Jerseys.**

EDITOR CANADIAN LIVE-STOCK JOURNAL.

On page 72 of your March number, Mr. Valancey E. Fuller asked me regarding my opinion of the Holsteins at the 1885 London show. My answer is, judging from appearance, many of them are first-class animals, but, according to the dairy test, they were below the average. That these dairy tests differ so widely from experience in Europe and the United States, is conclusive evidence that they are not a true criterion of the merits of the breed.

Mr. Fuller says: "Judged by these tests, as a breed of dairy cows, they" (Holsteins) "are an entire failure."

It is probable that all the butter was not extracted from the Holstein milk at these tests. This is apt to be the case where the entire milk is not churned, or sufficient time is not allowed for all the cream to rise. This often explains why Holstein milk does not show a larger percentage of butter, when tested by those ignorant of its nature.

Holstein milk contains small fat globules, which take longer to rise than large ones found in the milk of the Jersey. On account of these small fat globules Holstein butter can be made firmer and remains sweet longer than Jersey butter, or that made from milk containing large fat globules.

Dairying is profitably carried on in Holland on land which sells for from \$500 to \$1000 an acre, and upwards. For five years—1869 to 1874 inclusive—with less than a million cows, Holland produced and exported a surplus of 37,779,765 lbs. of butter and 60,360,665 lbs. of cheese annually. Were Holsteins "an entire failure as dairy cows," these results could not be obtained.

In the London market Holland butter is called by the name of the province whence most of it comes. As to its value, compared with American and Jersey butter, *The Farmer*, of Jan. 25th, published in England, gives the following London quotations per cwt.:

	1886.	1885.
Jersey,	80s. to 110s.	80s. to 110s.
American	60s. to 112s.	80s. to 122s.
Friesland	116s. to 126s.	120s. to 132s.

Though Danish and Normandy butter of the first quality generally brings more in London than Friesland butter, the quotations of Friday, Feb. 13th, in the *Agricultural Gazette* were as follows:

	1s.	1d.	per pound,
Danish, 1st quality	15.	11d.	"
" 2nd "	15.	11d.	"
Swedish, 1st "	15.	11d.	"
Kiel	15.	11d.	"
Ostende	15.	11d.	"
Normandy, 1st quality	15.	11d.	"
" 2nd "	15.	11d.	"
Friesland (Holstein)	15.	11d.	"
Jersey	15.	11d.	"

From this practical test of shillings and pence, compared with all foreign butter offered on the London market, Friesland butter (Holstein) brought the highest price, and Jersey butter the lowest.

There is no copyright on this, and Mr. Fuller is at liberty to use it, to convince the dairymen of Canada which is the best butter breed.

As Messrs. Yeomans & Sons' herd of Holsteins has been tested for butter, and Mr. Fuller has asked questions concerning them, I enclose a report of the tests and hope you will have room to give it entire.

DUDLEY MILLER.

Oswego, March 14, 1886.

BUTTER RECORDS OF THOROUGH-BRED HOLSTEIN-FRIESIAN COWS OF THE HERD OF T. G. YEOMANS & SONS, OF WALWORTH, WAYNE CO., N. Y.

It is a well established fact that the better strains of Holstein-Friesians are superior to any other breed for the production of butter as well as milk.

We give the following records, all made in our herd, and all but three have been made since January 1st, 1884.

We feel that we may justly claim that in butter our herd stands far ahead of any other herd of Holstein-Friesians in the country.

Several of these were two or three months under five years, but being over four and one-half years, we give them as five years.

These records were made in the most careful and accurate manner possible, many in the winter season, and are authenticated by the affidavits of reliable persons.

In all our butter tests, the butter is thoroughly washed with water in the churn, then taken out in granular form and well worked in one solid mass and weighed, before salting—this being, we think, the only correct and accurate way to get the true amount of butter.

These are not estimates, but actual records for the full time given:

Queen of Wayne,	11 years,	17 lbs.	4 oz.	in 7 days.
Lady Walworth,	8 "	19 "	" "	7 "
" "	6 "	37 "	6 "	14 "
Crystal	8 "	16 "	" "	7 "
Dewdrop,	6 "	18 "	6 1/2 "	7 "
Patsy,	6 "	19 "	10 1/2 "	7 "
*Aggie 2d,	2 "	17 1/2 "	6 "	7 "
" "	6 "	26 "	7 "	7 "
" "	6 "	105 "	10 1/2 "	30 "
" "	6 "	304 "	5 1/2 "	50 "
Sibyl,	7 "	18 "	3 1/2 "	7 "
Prairie Flower,	5 "	20 "	1 "	7 "
" "	5 "	81 "	10 1/2 "	30 "
Jenny Lind,	6 "	22 "	" "	7 "
Lily,	5 "	21 "	4 1/2 "	7 "
Lily,	5 "	83 "	11 1/2 "	30 "
Princess of Wayne	5 "	22 "	9 "	7 "
" "	5 "	91 "	7 "	30 "
Georgie,	5 "	21 "	15 1/2 "	7 "
" "	5 "	63 "	4 "	21 "
Oatka,	5 "	22 "	8 1/2 "	7 "
" "	5 "	85 "	7 "	70 "
Holland Jewel,	5 "	15 "	8 "	7 "
Sadie Vale,	6 "	23 "	11 "	7 "
Princess of Wayne 3d,	3 "	15 "	12 "	7 "
" "	3 "	76 "	12 1/2 "	30 "
Sibyl 2d,	3 "	17 "	7 "	7 "
Princess of Wayne 4th,	3 "	14 "	5 "	7 "
Florabel,	4 "	17 "	1 1/2 "	7 "
Aggie 3d,	3 "	19 "	1 "	7 "
Telephone,	2 "	12 "	4 "	7 "
Ideal,	2 "	14 "	1 1/2 "	7 "
Laurie,	2 "	13 "	7 "	7 "
Sunrise (1 year 11 months),	12 "	4 "	" "	7 "
Gift,	2 "	10 "	10 "	7 "
Frolic,	2 "	10 "	3 "	7 "
Star (2 years 8 months),	15 "	13 "	" "	7 "
Duty (1 year 10 months),	13 "	14 1/2 "	" "	7 "
Sunset,	2 "	12 "	15 "	7 "

\*After the loss of one-fourth her udder and her milk reduced to an average of 56 lbs. a day, she made in 7 days, 17 lbs. 4 oz. of butter, showing conclusively that she was capable of making over 21 lbs. a week, before the injury to her udder.

\*When 3 1/2 months in milk.

Aggie 2d,	made a pound of butter to 20.59 lbs. milk
Princess of Wayne,	" " " 18.4 "
Prairie Flower,	" " " 22.7 "
Oatka,	" " " 22.3 "
Princess 3d,	" " " 23.3 "
Sibyl 2nd,	" " " 21.00 "
Dewdrop,	" " " 22.07 "
Jenny Lind,	" " " 24.06 "
Holland Jewel	" " " 25.84 "
Gift,	" " " 26.7 "
Frolic,	" " " 26.55 "
Florabel,	" " " 23.3 "

All the animals named are now in our herd except two, of which we have the offspring.

The 9 two years averaged	12 lbs., 13 1/2 oz., each, per w. k.
The 4 three years averaged	17 " 6 1/2 oz., "
The 15 four years and over averaged	20 " 12.8 oz., "
The entire 29 of all ages averaged	17 " 7 1/2 oz., "
Best 12 (including 2 three years),	21 " 6 1/2 oz., "
Best 5,	23 " 7 oz., "

One cow made . . . . .	304	"	5 1/2	oz., but'r in 90 d's.
" " . . . . .	105	"	10 1/2	" " " 30 "
" " . . . . .	91	"	7	" " " 40 "
" " . . . . .	85	"	5	" " " 30 "
" " . . . . .	81	"	11 1/2	" " " 30 "
" " . . . . .	81	"	10 1/2	" " " 30 "
" " . . . . .	61	"	4	" " " 21 "
One three-year-old heifer . . . . .	76	"	12 1/2	" " " 30 "

Five cows (including one three years) averaged 87 lbs. 12 1/2 oz. for 30 days. Thirty-eight cows (including 17 two year olds) have averaged one lb. butter from 21.3 lbs. milk.

We make no claim to having one of the *largest* herds, but we do claim the most *uniformly choice* one, with best milk and butter records.

With a herd of less than 40 cows of various ages, giving milk during these trials, we ask: "Where is there a herd of *any* breed that can make a like showing?"

Princess of Wayne (954), calving at 5 years, 9 months, gave 20,469 lbs., 9 oz. in milk one year, at the time the largest record of any living cow. Her weight at close of record was 1,475 lbs. Seventeen head averaged in 7 days, 20 lbs., 5 oz. of butter.

## Poultry.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### Pure Bred vs. Common Fowls.

The interest in thoroughbred poultry has never been so great as in the past season. Since the more general use of thoroughbreds the receipt of both poultry and eggs in our markets have greatly increased; and this increase is due to the great improvement in our poultry, through the influence of thoroughbred birds.

I would respectfully suggest to all interested in poultry to get a few thoroughbred fowls. It is waste of time and money to keep common stock. If you do not favor the kinds the writer may have, get some other variety from a reliable breeder, and test the difference by that measure we all consider the most important, viz., the *socket*.

I have proved it. A few years ago there was great discussion on this subject, some claiming that common fowls would do as well, *i. e.*, give as much profit, or even more than thoroughbreds, with the same care and attention. I gave them a fair trial for one year, and satisfied myself there is no money in them. Where I was getting on an average a dozen eggs per day from 20 thoroughbreds in the winter, I was only getting 3 or 4, and sometimes not every day, from the 20 common ones, with exactly the same care, feed, etc.; and then the chicks from common stock were only fit for market; and there is not, of course, so much profit in them as in stock chicks. Here we would venture a word of warning to all intending purchasers: Beware of so-called cheap stock; it is almost certain to be worthless, as there is always a good and ready market for first-class birds at good prices. Also consider what you want the birds for. If you desire birds for exhibition purposes you will have to pay more for them than if you only intended them to produce eggs and chicks for market, and every breeder has such as these for sale at lower prices; and though in every sense pure and thoroughbred, they may not be so beautiful in plumage, perfect in comb, etc., which shuts them out of the show-room, but does not diminish their useful qualities. The chicks from a pair of fowls will vary in excellence just as the children of a family will, but the best and most perfect specimens, properly mated, are more certain to transmit their perfections to their progeny.

The male bird is really the best half of the breeding pen, hence the necessity of procuring a good one. From him the chicks inherit their beautiful plumage and external points of excellence, while from the mother comes the size and egg-producing qualities. This is not mere guess work, any intelligent person can by careful mating prove it.

Now when a fancier culls his birds and selects his pets for exhibition and for sale, carefully excluding all that do not meet his entire approval, and looks to

these as the real result of his year's labor and thoughtful care and attention, he cannot and will not sell them for what people call cheap prices. There is as much room for a difference in thoroughbred fowls as there is in horses or any other stock; some are sure to be of more value than others. It is only because poultry stock has been so undervalued that this fact has not been so generally recognized, except among fanciers. All lovers of our beautiful pets should do their utmost to increase their beauty and usefulness, by taking one or more of the many breeds, and studying to bring them to the highest state of perfection; there is no more pleasing sight than a flock of well-kept thoroughbred fowls.

I have often heard the remark, that the care and attention bestowed by the fancier on his stock is calculated to produce debility and delicacy of constitution, whereas the very reverse is the case. The fancier studies the material requirements of the birds, and provides everything his observation has shown to be needful for them. No breeder would be bothered with a lot of sickly fowls. His aim is to have the best birds that can be raised, and any one that knows anything at all of breeding stock, will be with me when I say he cannot get beautiful, large, well-grown chicks from weakly birds. Indeed, this care is the very thing that gives the fancier a chance to sell his stock, for the most attentive breeder will best carry his birds successfully through our long cold winters. If I have any success I shall have chicks from my incubator next week (24th February). One would need beware of the wet and drizzly days of early spring. They are more harmful than severe cold.

W. C. G. PETER.

Angus, Ont.

### Raising Turkeys.

Very opportunely, as the laying season is commencing, we are enabled to furnish our readers with the experience of one of the best poultry raisers in the Province on the above subject:

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—In raising turkeys it is necessary in the first place to have large, healthy stock to breed from. I prefer two-year-old birds to younger ones. At any rate two-year-old hens with a young gobbler, as the chicks from such stock are far larger, stronger and easier raised than when both parents are young birds. The turkey is very fond of wandering away and hiding her nest, which is a great source of trouble finding it at times; and crows and other vermin are almost sure to destroy the eggs, or perhaps the hen herself will fall a prey to master fox, weasel or mink. I have adopted a plan for a great many years which has proved successful. I shut them up for a week or so before they commence laying in spring. You can easily tell by the noise they make when looking for a nest. I generally put them in an old empty hayshed, with a little of the hay left for nests. When once they commence to lay, they will always go back to the same nest. Of course an opening must be left for ingress and egress at pleasure; or if you want to move them to a more secure place there is no trouble whatever, but you must cover the hen over or enclose her for a few days until she gets used to her new abode. I always move them at night. If the weather is very cold I generally remove the eggs to the house and pack them in bran, small end down, until the hen is ready to incubate. When hatched, feed the young chicks with hard boiled eggs and bread crumbs soaked in milk for the first week or so. Curd is also excellent for them; onion-tops chopped fine, also dandelion leaves cut up and mixed with the food. I have also used a weed called wild camomile, which is a fine tonic mixed with chopped scalded corn, and which they relish highly. I confine the hen in a large dry coop (an old pig-crate does very well), allowing the chicks to roam about at pleasure, picking up ants and other insects, which they are very fond of. I move the coop from one place of the grass plot to another occasionally. When about a fortnight old, feed some

small wheat. Plenty of fresh water must always be given; and keep the coop in the shade of a tree, if possible, as the hot sun is almost as fatal to the young chicks as wet, or a heavy dew. Another very particular thing to guard against in the successful raising of young turkeys is lice. In setting the hen dust some sulphur in the nest and under the wings; and if you see the young ones drooping, examine them for lice, as that is generally the cause. Apply a little sulphur or a little grease mixed with snuff under the wings and on the head. Another cause of failure is, oftentimes some of the shells of the eggs are soft and get broken; the albumen of the egg closes up the pores of the other eggs, thereby smothering the embryo chicks. Every time the hen comes off, count the eggs and see that none are broken; if they are, wash them in tepid water until the albumen is all removed. The young birds after about three weeks, can be allowed to follow the hen during the day, but be sure and shut them into the coop at night and guard against wet. I have lost as many as twenty in one night by neglecting to bring them home. After they are six weeks old, or after they "shoot the red," as it is called, they can stand a great deal, and may be allowed to roam anywhere. Turkeys are great foragers, and will gather from the fields during the summer months their entire food, at the same time destroying myriads of grasshoppers, bugs and other insect pests that are injurious to vegetation.

The hardiest and best variety is the bronze, which often weighs as much as 60 lbs. the pair. I have had a young gobbler weighing 28 lbs. at 8 months old, for which I paid \$10. I have also raised the wild breed, and was very successful for some time, but latterly have given them up, as they enticed my tame ones away to the woods after them, when often they were lost or shot. I one year raised 14 fine wild turkeys from one hen, and never saw her from the time she hid away her nest until the snow fell, except at a distance. They were as wild as ruffed grouse; and then I had to shoot them before I got them; they would roost on the top of the highest trees.

I hope these few disjointed remarks may enable some of your numerous readers to raise some good turkeys during the coming season, as during a 25 years' experience, by following the above rules as nearly as possible, I have found no trouble in raising turkeys.

JAS. ANDERSON.

Springfield Farm, Guelph, Ont.

### Large Geese—Best Fowls.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—In reply to your question of last issue I would say the Toulouse are the largest breed of geese in Canada and the known world.

In answer to "J. F." of Windsor, I would say the dark Brahmas are the best winter layers by all odds, but Wyandottes bid fair to excel all others as general purpose, all the year round farmers' fowls. Of this last breed, however, we will not speak too confidently, as our experience with them has been quite limited, and we do not deem it wise to throw an old, well-tried friend overboard, and grow enthusiastic over a new one. Thus far it has surpassed our most sanguine expectations.

J. W. BARTLETT.

Lambeth, Ont., March, 1886.

## The Apiary.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### Wintering Bees.

In treating of this subject, I wish it to be understood that I do not mean simply bringing colonies of bees through the winter months alive, but rather carrying them to that time, and in that condition that they will be serviceable in gathering the honey crop.

1st. I think experience has proven that in this climate cellar wintering is the most successful. After the experience of last winter few will be found to advocate any other system. But successful cellar wintering depends on being able to control both heat and moisture, at least to some extent. If colonies are weak in numbers, and the air damp, the heat will require to be higher than with strong colonies and a

dry atmosphere. There is little doubt in my mind that the great cause of loss in wintering bees is in having them in too cold a place. The air does not absorb the moisture generated by the bees; they consequently become wet, to such an extent frequently, that water will hang in drops on the cloth cover, and even at times run out at the entrance of the hive. Many will know of some such experience, as when sleeping in a cold bed-room, having the beard wet in the morning around the mouth, as also the bedclothes. Why is this exceptional? Because at other times the air in the room was sufficiently warm and dry to absorb this moisture. Now it is just so with bees. The moisture should never condense and cause perceptible dampness; if it does, loss has got to be sustained.

Now I need not go into a description of how this state of things is to be attained. I merely mention a principle, and leave it to every one to study out the best means of attaining it for himself. In fact, I think the most important information we can obtain is a knowledge of the laws of nature under which bee life and health is necessarily found, rather than a detailed description of the methods of certain individuals. I was among the first dairymen in the county of Oxford. When the excitement on cheese-making arose, between 20 and 30 years ago, people would come frequently a long distance to learn how to make cheese. Some of them would take out a note book and pencil and begin to ask questions. Such as, "How long after putting in the rennet till you cut?" "How long do you take in heating?" "What amount of salt do you use?" and so on. My answer to such questions were, *It all depends on circumstances.* When I commenced bee-keeping I was like those people, and felt discouraged and annoyed at the variety of answers that would be given to almost every question, however simple. I have for some time come to the conclusion that bee-keeping cannot be learned by rote. That what is best to be done at any particular time will depend on something before, or to come after, or on some certain condition, all of which must be taken into account. To illustrate: I have been told that only about five per cent. of those who attempt to keep bees succeed, and from the success I have in wintering, I begin to think I am one of that five. I have only lost five colonies the last two years, and they were lost by accident rather than the usual trouble in wintering. Three escaped, having the entrance blocks taken off; one was queenless; a weak one was robbed after having been set out of the cellar. This success I think depended on keeping them at that degree of heat and state of dryness, which prevented the state of condensation of moisture on the bees. When bees come out of the cellar in this dry and healthy condition, with capped brood and young bees (as I believe many of mine had), there is not much difficulty in spring management. But there are certain principles that should be attended to in the spring, however well they may have been kept in the cellar; the most important of which is, a right understanding of the effect heat has upon air, and the importance and necessity for heat at this particular time in the hive. On this last condition we only need to think for a moment to be convinced that breeding cannot go on without heat; and if breeding cannot, dwindling will. The bees at this time are active, consuming honey very fast, and thereby creating a good deal of heat, just as the more liberal burning of fuel increases heat. Their instinct tells them how to economize and save it, which they do the previous summer by closing all openings with propolis, making the top of the hive air-tight. They seem to know, what frequently the owner does not, that hot air has a strong

tendency to go up, to work its way out at the top of the hive, therefore they make it air-tight. Whatever change of air there is at the entrance, it is the coldest in the hive that goes out, but if it goes out at the top it is the hottest that escapes. Now with this principle in mind, what can we think of the practice of tearing up those glued covers without some urgent necessity. I have seen advice given in bee journals to close entrance block to simply one bee space in cold nights (which is all right), without a word being said about the top of the hive. Now I would rather have six square inches open at the entrance than one at the top the size of a goose-quill. It is a well-known fact that air cannot get into the hive except it can get out, and the bees evidently want to have it so that they can change it as they want it, which they will do at the entrance. My advice is, therefore, to work in harmony with this principle and instinct, without going into detail how best to do it. Of course there is likely no one that hears this, or that will read it, that does not practice keeping cushions on top; but some additional care, especially with weak colonies, to keep the conditions as before indicated. It should be borne in mind that all early manipulations are attended with risk in various directions. If they are necessary in order to crowd up, double up, or to feed, it should be done with care and at the most seasonable hours.

As a general thing I believe there is more harm done trying to build up, and thereby save weak colonies, than to let them take their chance with the best care that can be given. It should be understood that the only loss that may be prevented by such work, is that of a queen—and often they are not worth much in colonies—that are weak by bad wintering or disease. I do not refer to nuclei or late swarms.

I conclude by saying that the best help a bee-keeper can have, is the faculty of close observation, and the ability to reason from cause to effect.

F. MALCOLM.

Innerkip, March 8, 1886.

### Horticultural.

#### Some Thoughts on Grapes.

BY E. D. SMITH, WINONA.

The season of 1885 has taught us many things about grapes, not known before. It has been the worst ever known since grape culture has become a prominent industry here, for rot, mildew and kindred diseases, being cold and wet almost continuously. The last two weeks of July, being the only weather at all suitable for a healthy growth, the only real summer weather during the entire season, grapes grew more during these two weeks than during any other four weeks in 1885. Besides having a good opportunity of testing the merits of different varieties as to their power of resisting mildew, rot, etc., we had the best opportunity afforded for years of testing their productiveness, as every variety of grape was loaded to its fullest capacity; and, moreover, as the price was astonishingly low, growers have the necessity staring them in the face of considering whether they can continue planting grapes with no prospect of a rise in price, or whether means cannot be devised of opening up more extended markets; or, finally, whether they can grow grapes at prices current the past season.

Before proceeding to point out weak points in the different varieties of grapes, as shown by the experience of the past year, let me enumerate the characteristics of a perfect grape. First, the quality should be at least as good as that of the Concord, so good, in

fact, that when a citizen eats one bunch he wants another, and another, and as soon as possible. The better the quality, the more grapes will be called for, and consequently the better the price obtained if the supply is limited. Second, the vine should be productive. Third, hardy enough to stand at least 30° below zero, on the open trellice, even after a cold summer and fall, when the wood does not get properly ripened. Fourth, vigorous, though this depends very much upon the soil. If the soil is a deep, rich sand, a less vigorous growing variety will do better than one very vigorous, which would run too much to wood. Fifth, bunch and berry of good size. Sixth, the leaf should be tough and leathery, of that mildew-resisting type to which belongs Concord, Moore's Early, Worden, Lady, Cottage, Pocklington, Niagara, Champion, Dracut Amber, and others. This is very important. Seventh, if possible, capable of resisting the rot. As this is an almost new disease here, we scarcely know whether it will prove serious here permanently or not; but I am very much inclined to fear that it will now take up its abode with us for all time to come, showing its most disastrous effects in wet seasons like the past. There certainly was a marked difference in the quantity of rot on different varieties. But, alas! alas! judged by these seven points, we have no perfect grape yet; whereas, if it were not for the rot we would have a number of varieties very nearly so. The rot and the leaf blight seem to me to be allied forms of the same disease, for nearly, if not quite every variety, that was attacked on the leaf, and so lost its foliage, was not troubled with rot, and vice versa. All the varieties named above as having mildew-resisting leaves were affected with the rot, whereas Delawares, all the Rogers Hybrids, Crevelings, Isabellas, Israllas, and others that fail more or less in the leaf, were not troubled with rot.

Champion and Dracut Amber, both early grapes, had nothing whatever the matter with them; they held their leaves and ripened perfect clusters and enormous loads of them, while all around was disease, ruin and decay. But lack-a-day, ill weeds always grow fastest. The quality of both these varieties is so detestable under all ordinary circumstances that I should toss them out as I would a wild grape. If they are suitable for wine they might pay, but for table grapes they ruin the trade. The Champion is the earliest grape we have of any account, and formerly brought a high price, because people would give a high price for the first bunch of grapes in the market, but they rarely wanted another bunch. Fortunately for the growers there was only a bunch a piece for the consumers; so all went well. But this year many new vineyards came into bearing and the crop was heavy, so there were two bunches apiece, and three and four for the consumers, and the consumers did not want them. They said, "No, thank you; we will wait until your grapes come in sweet." So Champions took a tumble; ten cents per lb. no longer, but 8, 6, 4, 3, 2, 1½, and still no sale, until they were gone, gone for Concords. The Concord's reputation was nearly ruined in working off a lot of sour Champions. So Concords sold low all through the season, partly due to heavy crop, partly to the cause just mentioned; partly, also, to the lateness of the season and the closeness of money, an aggregation of causes that may not occur again for some time.

Well, judged by the seven points named, the Champion and Dracut Amber fail in quality, and miserably fail. I wish to raise no more. Concord rots, otherwise all right. Moore's Early, rots and is not very productive and not very vigorous, otherwise splendid.

Worden rots otherwise splendid. Cottage rots, also bunch rather small and berries drop, otherwise very good. Lady, slow grower, shy bearer, rots also, otherwise good; and being very early, is desirable, especially on rich ground. Pocklington rots, otherwise first class. Niagara rots also, and is a little tender at the root, otherwise it is the king of grapes. Red Wyoming, bunch rather small; quality not good enough. Early Victor, bunch and berry rather small, otherwise good. Delaware, small bunch and berry, and very weak in the leaf. This old, well-tried and useful friend, of such excellent quality, is doomed to go, though so far we have not tested a really good red grape to take its place; but feel very sure one is coming soon among all the claimants. Brighton is the nearest to a perfect red grape, so far as I have tested, but it fails in the leaf, and only there, for the quality is choice; it is a vigorous grower, productive, and bunch and berry large enough. The former is just compact enough; it is also early, and I think hardy.

Tokalon is useless. Martha rots and will not bear with us. Isabella too late, though excellent this year; a little weak in the leaf and rather late, but usually it is not a desirable grape. I believe the Adirondac is useless. Eumelon (if I have it true to name), too sour. I may have the variety wrong, however, as I see it called of good quality by some. Creveling, no use; too shy a bearer and too straggling in the bunch, weak in the leaf, otherwise good. Rogers 9 (Lindley), best of the red Roger grapes, weak in the leaf, however. Rogers 15 mildews in unfavorable localities and seasons, as also weak in the leaf; in fact, all the Rogers hybrids have this very serious fault, a fault so serious that I shall plant no more of them, but wait patiently for a good red grape with tough leaf. I have Rogers 4, 19, 30, 33, 39, 43, and 44, besides those named above; also Salem—all are strong growers, and fruit of good size and excellent quality, but most of them are not perfectly hardy, are not very productive, and fail miserably in the leaf.

If I were asked to name six varieties best suited for market, with this season's useful experience, I should say Moore's Early, Worden and Concord for black grapes; Lady and Niagara for white, and Brighton for red. However, seasons and localities vary, and what suits me here this year might not suit so well in other localities, or so well here another year. There have been great improvements in grapes during the last few years, and new claimants are continually pushing the old standbys to the wall. Our markets for grapes are not half developed, but at the same time the vineyards already planted are not half in bearing. This season 130 tons of grapes were shipped from Winona station alone, probably as many more went from this township into the city of Hamilton. If we should get such another favorable year for production, three years from now five hundred tons would be harvested in Saltfleet township. Other townships are following on with increased a reage yearly. So the question is very pertinent indeed, Have we planted too many? But more anon.

Feb. 1st, 1886.

If there is no club agent at your Post Office, you, reader, are hereby authorized to make up a club. Send for sample copies, etc.

**NEW STOCK CUTS FOR SALE** at this office. Large cuts of stallions suitable for posters. Small cuts of horses, cattle, sheep and swine. Send for specimen sheet. Address THE STOCK JOURNAL Co., Hamilton, Ont.

## The Home.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### Overdoing It.

BY MRS. HANEY.

Human nature is weak at best  
Self is a hero with most;  
A little praise goes a good way,  
Who ever must pay the cost.  
A word of advice is free to all—  
Where ever the shoe may fit,  
"Be careful and don't overdo a thing,  
Because people praise you a bit"

Mrs. B. was cooking a meal  
For herself and her family to eat,  
She wished for a change in the bill of fare,  
They were tired of butcher's meat.  
A knock at the door—Mrs. A's little boy  
Came in with a covered dish,  
And in it, already prepared for the pan,  
Was a beautiful fresh-caught fish

She praised Mrs. A. for her kindly act,  
Quite beyond reason or rhyme,  
For the fresh-caught fish in the covered dish  
Came just in the nick of time.  
Mrs. A. was flattered, and so it fell out,  
At morning, noon and night,  
The B's were overrun with fish  
As long as a fish would bite.

They were hustled from bed, they were hurried from prayers  
By a ring at the front door bell,  
While the chink of the dish, with the corpse of a fish  
Became a funeral knell.  
And all that summer, and all that fall,  
When the weather was wet or dry,  
The little A's went fishing for fish  
For Mrs. B. to fry.

Till even puss, as she snoozed on the rug,  
(And cats, you know, love fish),  
Would prick up her ears and run away  
At the sight of that covered dish.  
Human nature is weak at best—  
Self is the hero with most;  
A little praise goes a good way  
Whatever may be the cost.

A word of advice is free to all—  
Wherever the shoe may fit,  
"Be careful and don't overdo a thing,  
Because people praise you a bit."

CAISTORVILLE, ONT.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### Public Libraries

It is a prevalent notion that very little education is required to be a successful farmer. That a farmer ought to be a constant and thoughtful reader, not simply of one or two party newspapers, but of books, is a strange doctrine if announced to many in this land. In practice and in theory the most stupid boy of the family is relegated to the farm, whilst another son with whom nature has been more lavish with her gifts enters the mercantile or professional world. Now the popular notion that *any body*, with or without brains, can farm successfully, is certainly a fatal fallacy. It certainly does not require much mental power or activity to plow and sow, sow and plow simply, year after year in unending, dull monotony, but this method of proceeding must ultimately lead to starvation.

But surely it requires intelligence, reading and close careful observation to learn the chemical constituents of various soils, and also of various kinds of farm produce, and adapt the one to the other in scientific harmony. Can any one say that farming is intelligent, scientific unless this be done?

Wide reading, keen observation and thought are certainly required in successful breeding. Moreover the *successful* farmer, in the true sense of the term requires to have some knowledge of architecture in order

to have his residence and his barns as commodious and beautiful as they ought to be. Over all his "broad acres and fertile fields," his handiwork should display beauty, the product of the trained and the cultured mind.

This many-sided man must then be in the real sense of the word a highly intelligent, thoughtful well read man, if he is to occupy his true sphere, and farmers as a class are to take their proper position among other classes of men. We know of no occupation which demands as broad culture, an intelligence as many sided as that of the farmer.

How is this intelligence to be attained? Partly by association with men of like pursuits and kindred tastes, by occasionally leaving their "native hamlet" and "quiet vale," and seeing how other enterprising and intelligent men carry on their business, and what advances they have made, partly by attending and taking an active part in the Farmers' Institutes which are being fortunately established in many counties of the Province; partly by reading one or more of the best agricultural journals published, and partly by reading books treating of agricultural subjects, and pursuits in a scientific, intelligent way. But whilst we think that primarily the farmer should read those books having a more or less remote connection with his vocation, he should read more widely; not be merely the slave of his calling, but in his hours of leisure—and every man ought to have these hours of leisure—should devote himself to the study of literature and science in general.

But how can he get the necessary books to do this? Some well-to-do farmers have large and varied libraries, but these are only of the favored few. In this country many of our honored yeomen are now and will be for some years in straitened circumstances financially, and cannot purchase books, however much they may desire so to do. Need they mentally starve or be less intelligent men and farmers in the meantime? We think not. Some are not desirous apparently of enlarging the circle of their mental vision, but wearily plod away year after year without ever striving to become more intelligent or more scientific in their work. Can the members of this large class be diminished? We think so.

Our proposed remedy is the establishment of public libraries in every municipality, every township, village, town and city in this fair Province, by the rate-payers of each of these municipal corporations. The rate of taxation need not be high to establish these; in fact, it may not be necessary to increase the present rate of taxation at all, but let each ratepayer, and others who desire to make use of the library, pay, say one dollar per year, for the use of the same, and have it open at certain stated times. By not exacting any more than this moderate fee, in a very few years in each municipality, a fairly good library can be established. We have no doubt that the Government of Ontario would also lend some financial assistance in the establishment of such libraries, as they have in the past assisted various Mechanics' Institutes, and similar institutions in our towns and cities. We fail to see that the question of finance would be a difficult one to solve.

We would suggest that in an agricultural community the first books bought should be those relating to agriculture, and then as years roll by, and funds increase, the productions of the best historians, essayists, poets, philosophers, novelists and scientists, be added. In a manufacturing town, the books first bought should be those relating to the various mechanical and manufacturing industries to be found there, with the above mentioned valuable additions in the process of time. This is a wide and important subject, and this short article is intended to be merely suggestive and not by any means exhaustive.

### Welcome Visitors.

For the month these are :

The Business Circular of J. W. Bartlett, Lambeth, Ont., who breeds Dark Brahmas, Plymouth Rocks and Wyandottes, and is agent for the new model incubator.

Seed Catalogue of J. A. Everett & Co., Wason-town, Pa.

The Report of the Industrial Exhibition Association, of Toronto, for 1885. The admission fees for 1885 were \$34,759.38, and the amount paid in prizes, \$20,774.00. The assets amount to \$82,173.85, and the liabilities to \$25,648.29, which leaves the association worth \$56,525.56. A splendid showing since the commencement of the exhibition in 1879. Mr. J. G. Withrow is continued President; Capt. W. F. McMaster and W. Rennie, Vice-Presidents; J. McGue, Treasurer, and the indefatigable H. J. Hill, Manager and Secretary. The report is neat, concise and clear.

The Business Circular of the Huron Light Brahma Poultry Yards, owned by John Finch, Seaford, Ont., who breeds Light Brahmas exclusively, of the Geo. C. Bucknam's strain.

Circular and Price List of Superphosphate and Complete Phosphates, manufactured by the Standard Fertilizer and Chemical Co. (lim). R. O. Harvie, Secretary, P. O. box 176, Montreal.

Constitution and By-laws of the Pennsylvania Association of Trotting Horse breeders. A. W. Harrison, Secretary, Newcastle, Pa.

Descriptive Catalogue for 1886 of choice Fruit Plants, grown and for sale by A. G. Hull, Central Fruit Gardens, St. Catharines, Ont.

Illustrated Circular of the Northern Canada Poultry Yards for 1886. Plymouth Rocks a specialty.

Circular from the St. George (Ont.) Poultry Yards, owned by W. C. G. Peter, who imports and breeds Plymouth Rocks, rose and single comb Brown and White Leghorns, Wyandottes, etc.

Private Catalogue of the Glen Stock Farm herd of Shorthorn and Hereford Cattle, belonging to Green Bros., of Innerkip, Oxford Co., Ont. The Shorthorn females number 22 animals.

Hints and Suggestions on School Architecture and Hygiene, with plans and illustrations prepared under the direction of the Hon. the Minister of Education.

Report of the Council of the Agriculture and Arts Association of Ontario for the year 1885 (to be noticed further in May issue).

Catalogue of Horace Henry's Ayrshire Cattle to be sold by public auction at Fairview Farm, Woodburn P. O., on Wednesday, 28th April, 1886 (see advertisement). Mr. Henry offers at this dispersion sale his entire herd—founded on that of J. Jardine & Sons, Hamilton, all sired by the prize-winning Mars 1st [803], and imported Stoncalsey (309) [1435]. Of cows, heifers and cow-calves, 30 head; and of bulls of different ages, 15 head.

A neatly prepared catalogue of sale on Thursday, 8th April, 1886, by R. Thomson, St. Mary's, Ont., in which is given the pedigrees of 6 bulls and bull calves and 14 cows and heifers, and also of two imported stallions.

THE NEW BOOK, by J. H. SANDERS, on "HORSE BREEDING," in which the general laws of heredity are exhaustively discussed and applied to the practical business of breeding horses, especially with reference to the selection of breeding stock, and the management of stallions, brood mares and young foals, will be sent to any address, post-paid, on receipt of publisher's price, \$2.00.

Address, STOCK JOURNAL CO.,  
Hamilton, Ont

### Jottings.

**The Clydesdale Stud-book.**—The eighth volume of the Clydesdale Stud-book of Great Britain has been issued. The entries (only covering six months time) comprise 813 brood mares and 855 foals, and 592 stallions.

**The Dominion Exhibition.**—The Dominion and Provincial Exhibition will be held at Sherbrooke, P. Q., this year instead of at Montreal. It was a good exhibition last year and should be a splendid affair this season.

**Jersey Cattle.**—The twentieth volume of the American Jersey Cattle Club Herd Register has been published. It contains the entries of bulls from 14,801 to 15,000, and cows from 33,001 to 35,000. The membership is 379.

**Black Prince.**—Our thanks are due to Geary Bros., of Bli Bro and Keillor Lodge, for a beautiful sketch of their famous Aberdeen-Angus steer Black Prince, which at the Chicago Fat Stock Show of 1883, won for them \$250 in sweepstakes prizes. Henceforth it shall adorn the walls of our sanctum.

**Cleveland Bay Stud-book.**—The second volume of this breed of horses, now so high in popular favor, is out. The Cleveland Bay Horse Society, with a view to embrace as large a number of animals as possible that were eligible, decided a good while ago to allow parties owning such animals to register them. This privilege, not very numerously embraced as yet, will only be continued till the end of the present year.

**Shire Horses.**—The seventh annual show of Shire horses was held in the Agricultural Hall, London, late in February. The number of entries was 392, the largest number ever made. Mr. Walter Gilby's Staunton Hero was the champion of the show, defeating Prince William, the champion of 1885. The two sires, which have most distinguished themselves in the stud of late are William the Conqueror 2343, and Premier 2646.

**Dishorning Cattle.**—We had been congratulating ourselves with the thought that three thousand miles of the Atlantic lay between us and the abominable practice of dishorning cattle, but it seems that men as cruel are found not nearly as far away. One Mr. Haaff, a farmer of Atkinson, Illinois, was prosecuted by the Illinois Humane Society not very long ago, and we regret to have to chronicle that they failed to secure a conviction. We trust that the cruel and needless practice will never disgrace our Dominion.

**The Poor Scrub.**—"No one appears to say a good word for him. It is not even asserted that he is good for anything. It is not pretended that he places money in the bank to the credit of any man, or pays anybody's taxes. When people set to talking about what kind of cattle is the best his name is never mentioned. Evidently the experience of the world is against him, and everybody knows he is not the best, but on the contrary, if not actually worthless, as near to it as it is possible for any kind of cattle to be."—*The Breeder's Gazette*.

**Hambletonian Mares as Producers.**—From the *Breeder's Gazette*, we learn that there is a total of thirty-six trotters in the 230 list of Hambletonian's daughters. Thirteen of them have records of 2:25 or better, ten 2:23 or better, three have beaten 2:20 and one has a record of 2:14. Three mares by Rysdyk's Hambletonian have produced two trotters in the 230 list. They are Alley, who has to her credit Albert France, 2:20½, and Wilton, 2:30. Belle Brandon, the dam of Gov. Sprague, 2:20½, and Amy, 2:20¾; and Reina Victoria, with Ecudid, 2:28½, and Princeton, 2:23¾.

**Chilled Lambs.**—The method of resuscitating chilled lambs by the Oregon shepherds is to dip them for a few minutes into water, so warm that one can just bear to hold his hand in it. They are then taken out, rolled in a warm blanket, and laid on a frame of slats over a warm stove until the wet is dried off them, when they are given a drink of the dam's milk and allowed to remain with her. We have known the method of immersing chilled lambs all but the nose and eyes in warm water tried here with much success, but the method of drying was by rubbing, a very tedious one, and not very effective.

**The Journal as an Advertising Medium.**—"I am pleased to say that the past season of the JOURNAL has been of more use to me as an advertising medium than the three other papers I make use of.—J. W. Bartlett, Lambeth, Ont."

"Before your February number reached me I had several enquiries for stock advertised therein from parties who had got it earlier. It is a splendid medium for buyer and seller, reaching as it does, a great many practical men who do not trouble advertisers for nothing, and give unnecessary trouble, but men who mean business every time.—R. A. Brown, Cherry Grove, Ont.

**Treatment of Shipping Cattle.**—We notice with very much pleasure that Mr. D. Messenger, of Guelph, is using his best efforts to get such legislation as will tend to the amelioration of the treatment of shipping cattle in the export trade. He brought the matter before the members of the Guelph Fat Stock club, who memorialized the Ottawa Legislature on the subject. We hope the friends of our dumb dependents will rally to the rescue at this opportune moment throughout the province.

**Creamery for Penetanguishene.**—Mr. John Campbell, of the above place, who honored us with a call a short time ago, writes: "Through what I saw and heard at Georgetown during my visit to Mr. Moyer, I have concluded to start a creamery here. Mr. M. addressed a meeting of the farmers called since my return, and they are much pleased with the idea. It must prove a great improvement over old methods, prices here ruling at 15 cents per pound, all winter and all grades at one price." We wish the movement every success. Thus and thus it is that the stock interest is extending in every direction.

**Tested Seeds.**—When in London not long since, we called upon the seed firm of Messrs. John S. Pearce & Co. We were much pleased with the great pains taken by this firm to make sure that their seeds will grow. This is assured in a most practical way. One hundred seeds of each variety offered for sale are planted, and unless 90 per cent. of these germinate, the seed is not put upon the market. This plan may be adopted by other seedsmen also, but whether or not, it is a most excellent one, and the seedsmen who goes to so much trouble to make sure that those who buy his seeds will not be disappointed deserves to succeed.

**Aberdeen-Angus Polls.**—The tenth volume of the herd book for this breed has been issued. It contains the pedigrees of 2,983 animals of which 674 are bulls. Vol. ix contained the pedigrees of 2,509 animals. The qualification for registry are: (1) "That the animals, sire and dam, are registered; (2) that the animal is by a registered sire, and has for dam a cow, whose produce has been already registered; (3) that the sire of the animal, and the dam's sire, grand sire, and great grand sire have been entered in the herd book, and the animals great grand dam was an Aberdeen or Angus Polled cow, certified to be so by the breeder or owner of the great grand dam."

**Ayrshires.**—Mr. Horace Henry, of Fairview Farm, Woodburn, Ont., has concluded to sell his entire herd of Ayrshires 45 in number, as advertised in another column. We had the pleasure of scanning this herd a few days ago, and were pleased with their thrifty look. It is a dispersion sale, and will afford a good opportunity of securing good milkers of this useful class of dairy cattle. Imp. Stoncalsey (309) [1435], for some time the stock bull at the Experimental Farm, heads this herd of young Ayrshires. He was a great prize-winner in the old country. We regret that Mr. Henry has concluded to sell both his farm and his herd.

**Binders.**—The Chatham Harvester Manufacturing Co. we found very busily engaged in making Binders at the time of our visit early in March. They are turning out a larger number of Binders this year than ever before, and the usual number of Reapers and Mowers. Their patent adjustable binder-table is a distinguishing feature of this Binder. The principal change for 1886 is the adoption of a new reel, which is said to be strong and durable. While engaged in making the awards on Prize Farms for the Council of the Agricultural and Arts Association last summer, we were surprised at the number of these excellent Binders in use in the easterly counties of Ontario. May the good work prosper.

**Dominion Clydesdale Association.**—On the 24th March, the Clydesdale breeders of Ontario formed themselves into an association, with a view to further the interests of the breed of this noble race of draught horses. The new association is designated "The Clydesdale Association of Canada." Mr. D. McCrae, Guelph, was elected President, Wm. Smith, Columbus, Vice-President and H. Wade, Toronto, Secretary-Treasurer. Messrs. Henry Jeffrey, Whitby; Robert Cheyne, Toronto; H. H. Hurd, Hamilton; Wm. Rennie, Toronto; Jas. Beith, Bowmanville; Simon Beattie, Markham, and John Jackson, Grahamsville, from the directorate. The standard is to be made so that animals entered will be eligible for registration in the third vol. of the American Stud Book.

**Hog Cholera.**—The herd of a western pork grower who feeds his pigs upon a variety of food, giving but little corn until they are four or five months old, has so far escaped hog cholera. His nearest neighbors who feed corn exclusively have lost heavily from the disease. Experience and observation led him to believe that by feeding oats, bran, pumpkins, in their season, and mangolds instead of corn, and providing dry, clean,

warm nests, changing the latter frequently, this dread disease can be avoided. This is good sense and we believe it will yet be shown that unsound and immature corn fed exclusively to hogs, horses, cattle, &c., is a fruitful source of disease. The immunity Michigan enjoys from the disease is largely because their hogs are not confined to a corn diet, but some think that hogs can stand anything.—B. Gott, Arkona.

**Fish Guano.**—Dr. A. P. Aitken thus speaks of the comparative value of fish manures in the *North British Agriculturist*. "Their insolubility renders them unsuitable for application in circumstances where Peruvian Guano exerted a powerful influence, such as in the forcing away of cereals or young grass, when applied as a top-dressing. They are chiefly valuable for broad-cast manuring with the view of raising the general fertility of the soil, or for application to root crops, which have a prolonged period of growth. While they contain much phosphate and abundance of nitrogenous matter, they contain almost no potash." He suggests that they be sold under a name that is not misleading, and that Potash salts should be added to them, which would make them much more efficient in their action.

**Fanning Mills.**—Of the several good fanning mills manufactured in this country, we have good reasons for believing that the Chatham mill manufactured by Manson Campbell, of Chatham, Ont., is one of the best. The gearing is inside and therefore out of the way, the screens and riddles are adjustable to any pitch, and the mill has a capacity of from 80 to 90 bus. per hour, if men are disposed to work hard enough to keep it running at this rate. A special feature is a patented riddle for extracting cockle and wild peas from grain. It is shipped in sections, which saves much in freight. 11,300 of those mills are now in use, 1,330 were made and sold in 1885, and 1,500 will be made this year (see advertisement). A truly good fanning mill is of incalculable service to the farmer, as an hour spent in this way, preparing seed, may save days of combatting afterwards with vexatious weeds. A poor fanning mill is worse than none. There is no article on the farm which it is more necessary to have of the very best.

**Engines and Separators.**—An exceedingly handsome pamphlet for 1886 from the old and reliable firm of L. D. Sawyer & Co., Hamilton, has just been placed in our hands, which leads us to notice the useful work which this establishment is carrying on. They manufacture Grain Saver and Peerless threshing machinery, comprising complete steam power outfits, complete horse power outfits, separators for steam and horse power, etc. The engines take in a cordwood stick readily without cutting and will this year be manufactured on a large scale. Quite a list of improvements are announced on the grain saver for 1886, although the testimonials hitherto published are very flattering, and nearly 200 were sold last year. The Messrs. Sawyer & Co. tell us that the tread horse powers are much sought after and are likely to be largely used; that business is brisk with them at the present time, and that the outlook for the future is cheerful. See advertisement just renewed for the third year.

**Wallace's Year Book of Trotting & Pacing in 1885.**—In the latter part of March or first part of April there will be issued from the office of the AMERICAN TROTTING REGISTER, in New York, a complete record of all trotting and pacing performances of the past year. These performances will be given in full summaries, showing every incident of every race where any mile was trotted or paced in 2:50 or better. These summaries have been diligently compared and then rechecked with official reports in the office of the National Trotting Association, and they are altogether more nearly correct than anything of the kind ever heretofore published. As there will be no skeletons or sham summaries, this part of the book, with its indexes, will fill more than two hundred pages. Then will follow the great annual tables of performers under their sires, embracing nearly or quite a hundred pages more. These tables are the great educators of this generation of horsemen and embrace all past teachings and all past experiences. They not only show what performers have come from the loins of each sire, but they show what the sons and daughters of each sire have done in the way of getting or producing trotters and pacers. This volume of nearly three hundred large octavo pages will be handsomely bound in flexible covers and sold at ONE DOLLAR, with a liberal discount to the trade, editors, postmasters, etc. Address, John H. Wallace, 212 Broadway, New York.

**Seed Corn.**—It is all-important to those who purpose planting corn to know that the seed is good. There is still time enough to test it, which is a very sure plan, but not absolutely so, as seed will sometimes germinate, and yet from lack of vitality the growth will be sickly. It is an excellent plan to save one's own seed, when the husking is done early in the fall.

Unless the quantity wanted is very large, it is safest to have a part of the husk attached to the cob, to plant a number of these together, and to suspend in bunches in some dry place inaccessible to mice. Where a large quantity is wanted, the early husked corn should be sorted, the plump mature ears going into one apartment of the corn house, and immature and imperfect into another, test the latter through excessive dampness, destroy the former. Indeed, this latter is an excellent plan whether the corn is intended for seed or otherwise. The bad here, as elsewhere in nature in all her kingdoms, contaminates the good, rather than the good improving the bad. Our attention was drawn to the importance of thus exercising care in the harvesting of corn by observing the soundness of the corn in the bins of Mr. C. G. Chartens, of Chatham, Ont., notwithstanding the excessive wetness of last autumn, and that the variety was the Smoke Dent, of western origin, and a little later in maturing than our Canadian varieties. We may add that this variety also yields heavily

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R. F. Ivey Eggs for Hatching.
Geo. H. Richmond Poultry—Light Brahmas.
Horace Henry Auction Sale of Ayrshires.
W. H. & C. H. McNish Berkshires for sale.
R. S. McCrea Stallion for sale.
Mrs. A. Ireland Auction sale, Shorthorns, &c.
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Dep't Public Works Notice to Contractors.
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A. G. Hull Grape Vines, &c.
S. Weiss Percheron horse.
H. McKay Eggs for Hatching.
D. H. Price Eggs for Hatching.
Hay and Paton Aberdeen Angus Polls.
Messacar & Smith Herefords for sale.
S. J. Pomeroy Shorthorn Cows.
W. H. Carpenter Percheron Stallion for sale.
Oaklands Jersey Dairy Dairy Salt for sale.
F. W. Stone Herefords and Shorthorns.
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L. R. Sawyer Engines, etc., etc.
Jos. G. Haig Berkshire Boar.
J. E. Brethour Berkshires for sale.
Wm. Rennie Clydesdales.

**Stock Notes.**

Parties forwarding stock notes for publication will please condense as much as possible. If written separate from other matter it will save much labor in the office. No stock notes can be inserted that do not reach the office by the 3rd of the month preceding, the issue for which they are intended.

**Horses.**

Messrs. Dack & Dack, of the Reporter, Kincardine, say of the electro of a Clyde stallion purchased from us: "We are much pleased with the engraving. It is a credit to any house."

Messrs. Wm. Rennie, Toronto, J. & R. Forbes, Woodstock; W. H. Miller, Severn Bridge; W. H. Carpenter, Winona, and R. S. McCrae, Glen Williams, place their advertisements in this issue, offering stallions for sale.

Messrs. F. Archinan & Sons, Epsom, Ont., mention that the sale of horses is improving. They have sold the Clyde stallion Jamie Fleaman (3703), vol. vii, to Messrs. W. Lamb & Thos. Prouse, of their own township, and the 2-year stallion Sir Walter Scott, vol. viii, to J. A. Asling, Berea, Ohio.

Messrs. J. & W. Pringle, Ayr, Ont., report the sale of a three-year-old Percheron Norman stallion, and a two-year-old filly, at a good figure, to Mr. J. S. Frain, Walker Centre, Pa. They were both by their importer Percheron stallion Dauntless, and have arrived safely at their destination. Mr. F. mentions that his friends are greatly pleased with his new purchases.

As we go to press, Arthur Johnston, of Greenwood, Ont., reports the following sales of stock. To J. Wilson, of Newcastle, Pa., 1 imported bull; G. Y. Christie, Bloomfield, Ont., 2 Clydesdale mares; John McIntosh, builder, of Stellarton, N. S., 2 Shorthorn heifers and 3 pure bred Clydesdale fillies; J. B. McKay, Stellarton, N. S., 2 Clydesdale fillies, Messrs. McIntosh & McKay, Stellarton, N. S., 1 very superior imported Clydesdale stallion, Jamie the Laird (3704), sired by the Keir-bred stallion Laird of Aboyne (1775), a son of the famous Keir-horse Newstead (159). To the same parties 1 imported Shorthorn Bull. This Nova Scotian shipment is said to be of excellent quality and the very highest standard of breeding.

The well known breeder, Mr. Thos. Good, of Richmond P. O., near Ottawa, has purchased from Robt. Ness Jr. Esq., of Howick, Q. C., the magnificent Clydesdale stallion, The Montgomery (3254) for \$3,000 cash. The Montgomery is one of the most fashionable bred Clydesdales on either side of the Atlantic, having for his sire the Great Macgregor (1487), and grand sire the noted Darnley (222), dam Jess (1236), by Prince of Kelvin (656), he by the far famed prize winner Prince of Wales (673). Jess (1236), is half sister to the noted Corsewall (1422), and is herself a prize taker. A full sister to Montgomery, was 1st at Glasgow last season in a very large ring of yearlings. The Montgomery is winner of seven first prizes, a diploma, and gold medal, and never was defeated. It is gratifying to know that this noble animal is secured to Canada, and not allowed to cross the lines where so many of the good ones go.

The Messrs. T. & A. B. Snider, of German Mills, Ont., have lately purchased a fine Kentucky bred Coahx stallion, sired by the celebrated stallion Smuggler. They say regarding him that "he is considered by good horsemen to be the finest Coahx stallion now in Ontario, being of good size and grand style." They also write, "Our stock of both horses and cattle are doing well." Have lately sold two imp. Percheron stallions Custow and Rivoli, and the half bred stallion Major, to Mr. Isaac Frain, Centre Co., Penn., the same gentleman who bought a number of colts, sired by our own stallions before, and who speaks highly of his success with them. We are having a fine increase in our Shorthorns this season, all our show females having good calves by their sides except one, which is soon due to calve. Rose of Strathallan and has a fine roan bull calf, red and a little white. The question has often been put to us, will your cows breed when so fat, and we would here state that we have always had better success with our show females than with the rest of the herd; less trouble in getting them with calf, and a smaller percentage of loss in calves.

**Shorthorns.**

Mr. John Gibson, Denfield, Ont., writes: "I think the advertisement of my sale in your paper was a good investment."

Mr. S. C. Isaac, Baltimore, Ont., reports the following sales since January, 1886: To J. C. Snell, Edmonton, one imported heifer, two years old, 1 heifer calf, and three bull calves, and 2 yearling heifers to D. Douglas, Warkworth. Stock doing well.

Mr. J. B. Conboy, of Belfountain, Ont., bought two nice heifers from Mr. A. Johnston, of Greenwood, about first Oct., 1884. He now reports that they number 7 head—the two original cows, three heifer calves and two young bulls. Who can beat Mr. Conboy's luck?

A lovely sketch of the beautiful imported Shorthorn cow, Wild Eyes Winsome 4th, sold by R. Gibson, of Delaware, Ont., at his sale in Chicago in 1881, to H. F. Brown, Minneapolis, Minn., for \$1,050, appeared in the National Live-Stock Journal for March.

Mr. John Robinson, Spring Ridge Farm, Sanfield, Manitoulin, reports: "My stock is doing well. I like the JOURNAL well and yet many do not subscribe on the plea that they must take their party paper. If farmers would pay more attention to their stock and farm, and less to party politics, they would not do without their farm and stock papers."

Mr. Bliss Anderson, Sackville, New Brunswick, writes: "I arrived home safe, after five days and nights on the train with my stock. The cow purchased from Mr. Pettit, Grimsby, has dropped a fine bull calf. Queen of Lorne and, bought of Mr. Hunter, dropped a fine cow calf, and they are all doing well. The Clydesdale colt Lord Clyde, is going to suit the people well. He is much admired here."

**Advertising Rates.**

The rate for single insertion is 18c. per line, Nonpareil (24 lines make one inch); for three insertions, 15c. per line each insertion; for six insertions, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not more than five lines, \$1 per line per annum.  
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.

**STOCK FOR SALE.**

**HALF BRED PERCHERON FOR SALE**—Rising five years old. SEBASTIAN WHIS, Plattsville, Ont. ap-3

**FOR SALE**—Half-bred Percheron Stallion, 3 years old in May; sired by imported Dauntless, dam by Fox Hunter. Weight, 1,600 lbs. D. G. HANMER, Mt. Vernon, Ont.

**FOR SALE**—THREE BERKSHIRE BOARS, farrowed November, 1885. Will be sold cheaper than spring pigs. JOSEPH C. HAIG, Gananoque, Ont. ap-1

**FOR SALE**—Seven Young Shorthorn Bulls, from 12 to 19 months old, color red and roan, by imp. Cruikshank bull Premier Earl—2005—. Prices reasonable. JAMES GARDIHOUS, & SONS, Malton Station, G.T.R., Highfield P.O., Ont. fe-1

**FOR SALE**, 4 young Bulls and five Heifers, by British Statesman—753—(42847), also 2 very nice Berkshire Boars, and a few Sows, farrowed in July last (registered), good animals, good pedigrees, and low figures. Send for catalogue EDWARD JEFFES, Bond Head, Ont. fe-3

**FOR SALE**—Five Shorthorn Bulls. One named Soldier Boy, 1 year old, weight about 1100 lbs. Will be sold for \$100. The best good animals and good pedigree. Also, a pair of four-year-old Percheron Stallions for sale cheap. Also 4 Collie pup, price \$5 each. Address JOHN LAMONT, Caledon, Ont.

**FOR SALE**, Three Young Shorthorn Bulls, good individuals. Good color and good pedigrees. E. A. & S. W. EDWARDS, Watford P. O., Ont. fe-3

**FOR SALE**—Two Shorthorn bulls, 8 and 13 months old, color cherry red. Reg. in B. A. H. B., sired by Brilliant, —1235—, son of Barmpton Hero. ja-1f JOHN CURRIE, Everton, Ont.

**WELL BRED CARRIAGE STALLION** for sale—bay; black points; rising three; sixteen hands high; weighs eleven hundred, handsome; sound; good tempered; has been driven single. For particulars inquire of R. S. McCRAE, Glenwilliam, Ont.

**TWO FIRST-CLASS IMPORTED HEAVY DRAUGHT STALLIONS**, three years old, for sale cheap, as the owners have no use for stallions. Apply to J. & R. FORBES, Stratford, Ont. ap-1

**THE SCIENCE OF FEEDING.**

TREATED in a thorough and practical manner, by PROF. E. W. STEWART, in his newly-published work on "FEEDING ANIMALS." This excellent work will be sent to any address, post-paid, on receipt of publisher's price, \$2.00. Address, STOCK JOURNAL CO., Publishers CANADIAN LIVE-STOCK JOURNAL, Hamilton, Ont.

**19 Shorthorn Bulls,** Good animals (and pedigrees) at reasonable prices.  
**30 Hereford Bulls,** F. W. STONE, Guelph, Canada.

**FOR SALE OR EXCHANGE.**

Four Pure-bred Shorthorn Cows (Bates Family) in calf to the celebrated Hereford Bull, Tushingham. Will sell or exchange for a pure-bred Percheron mare with foal, or horses of any breed. For further particulars address S. J. POMEROY, Compton, Que. ap-1

**HEREFORDS FOR SALE.**

**Thoroughbreds.** 4 Bulls and 3 Heifers, all registered in A. H. R. Good individuals and prize-winners.

**Grades.** Sixty yearling Bulls and a number of Heifers, all raised on their dams, well marked. Will all be sold at low prices. Address, MESSECAR & SMITH, Scotland, Brant County, Ont. ap-2

**Registered Berkshire Pigs for Sale.**

A number of choice Berkshire Boars and Sows of different ages, will be sold cheap. Correspondence solicited. Stock shipped to order and guaranteed to be as described. J. E. BRETHER, Burford P. O., Brant Co. ap-2

**Ayrshire Bull Calf for Sale.**

Took Third Prize at the Provincial Exhibition, London, 1885. His dam took the Twenty Dollar Special Prize in the Milk Test, quantity and quality considered, scoring far ahead of all competitors, being second best cow of any breed at the Exhibition of 1885. Apply to owner, GEO. HILL, Delaware P. O., Ont. fe-2

**Stock Notes.**

Mr. W. J. Biggins, of Elmhurst Farm, Clinton, Ont., mentions: "My Shorthorns are doing well; last week sold the following young stock: Mr. Thomas Carbert, Hullet, bought the bull Royal, from Matchless of Elmhurst 6th, by British Statesman 2nd, and Mr. W. Lang, St. Marys, Baron Elmhurst, from Matchless 10th, by imp. Statesman, also the two year heifer Matchless of Elmhurst 7th, by Crimson Duke and.

Mr. Simeon Lemon, of Poplar Lodge Stock Farm, Kettleby Ont., mentions that his Shorthorn herd numbers 14 head, ten females and four bulls. The young calves, got by Royal Charlie are of good size and quality. Oxford and Southdown sheep, and Berkshire and Suffolk pigs are also numerous kept. During the past ten years the flocks and herds from this farm, which is 8 miles from Aurora, on the N. & N. W. Railway, have taken about 500 first prizes alone.

Mr. Arthur Johnston, of Greenwood, Ont., reports the following sales since February 10th: To Mr. J. D. Howden, of Columbus, Ont., one imported bull calf. To Messrs. A. & S. Shantz, of Haysville, Ont., one imported bull calf, both extra good ones. Mr. Johnston is enthusiastic in his praises of the Messrs. Shantz's calf, and adds, stock wintering well. Feed going to be rather scarce. Enquires very frequent, purchasers hardly so plentiful. We would hardly know that there is hard times now, if we did not see it in the papers. I would not like to do without my ad in your paper; so well do I like it that I herewith order an extra one for March.

Mr. John Cook, Lansdowne, Ont., writes: "I must say that I am more than pleased with the Berkshire pig I bought from your Riverside herd. He is doing well. I have every confidence in the stock raised in the west, as I have bought at different times by letter as I did from you, and have always found the purchases as recommended. I may mention in particular Southdown sheep bought from Thos. Wilkinson. I have also bought a Shorthorn bull of E. J. Yorke, of Wardsville, that is now a fine one, and all right for the new Dominion S. H. H. B., with the females, Lady Lansdowne and Miss Mowat as well, and their calves. The JOURNAL is a welcome visitor, and a true friend to the farmers and stockmen."

We understand the outlook is good for a successful sale of the Willow Lodge Herd of Shorthorns, etc., at Edmonton on the 7th April. Mr. Snell writes: "There has been a large demand for catalogues from all the Provinces and also from the United States. The cattle are doing well, and will make a fine appearance by the time of sale. The calves by Waterloo Wonder, and Royal Irwin are very fine, and the young bulls are a '100.' Mr. Snell has arrangements to have the animals recorded in the Dominion Herd Book before the date of sale, and expects to have the certificates of registration ready to hand to purchasers on that day. Mr. Snell extends a cordial invitation to all lovers of good stock to come and see him on that day.

Mr. G. Gould, of Rutherford, Township of Dawn, called a number of his neighbors together to take stock in a good Durham bull, with a view to the improvement of the cattle in the neighborhood. They appointed Mr. Gould and Mr. Ira Davidson to purchase one not exceeding \$150 in the price. After some search they bought from Mr. S. B. Gorwill, Ballymote (near London) a splendid one-year bull, dark red in color, short legged and heavy quartered, and sired by Laddie of Buchan—2106—, bred by Mr. John Isaac, Bomanton, Ont., got by Prince of Northumberland (4691), dam, Buchan Lassie 3rd, by Golden Crown—106—, and from the dam Bracelet, bred by S. Thompson, Whitby. Mr. S. Huff, also of Dawn, who accompanied the deputation, bought from F. Shore, White Oak, Scottish Lass 3rd, which has taken more prizes than any cow of her age in Middlesex. She is in calf to Mr. Shore's imp. Cruikshank bull Vermilion. Mr. Gould is hopeful that when their friends get a glimpse of the bull there will be no more scrubs kept in Dawn. We trust it may be so. Why cannot every neighborhood without a good bull do as these men have done?

Mr. James I. Davidson, of balsam, Ont., mentions: "Have had a visit from Professor E. M. Shelton, Manhattan College, Kan., and from Mr. Thomson representing Col. W. A. Harris Linwood, Kan., which resulted in the following sales: Prof. Shelton bought Highland Chieftain, got by Dumbiane (47792), dam, Violet Spray, the oldest tribe at Sittytton, and I think if not the best, one of the best I ever imported. Mr. Thomson bought for Col. Harris Scottish Lord, by Chancellor (47568), dam, Silvery, 15 years old, by the Champion of England (17556), Silvery is the dam of the Earl of Aberdeen, which was sold for \$1,000, also the dam of Strongbow now in use in the Sittytton herd, also the bulls Prince President with six top crosses of Cruikshank bulls on a Bates foundation of the Secret tribe; Chief Justice of the Venus tribe, dam, Guelder Rose, sire, Dumbiane; Commander of the Bath, dam, Lady of the Palace, sire, Chancellor, and the two heifers Lady of Salott, dam, Lady of the Forest, sire, Dumbiane and Vera of the Violet tribe, by the same sire." This lot makes twenty-nine head of imported Cruikshank cattle that Col. Harris has bought of Mr. Davidson, in addition to what he has bought of others who first bought of Mr. Davidson, and has paid from \$1,000 to \$1,600 each for them. As Mr. Davidson says, his herd must indeed be a credit to his judgment. Col. Harris and Mr. D. Cookson & Sons have the largest herds of Cruikshank cattle in America.

In the March number of the JOURNAL for 1884, page 76, we gave some notes of the Thornville herd of Shorthorns owned by Frank R. Shore & Bros., White Oak P. O., some 6 miles southward from London, Ont., subsequent to a visit paid to it a short time previous. We looked in upon it again early in March, and were much pleased with the progress made. The herd now numbers 65 head, all pure Shorthorns and mostly of the thick fleshy type which a Cruikshank bull produces in a herd. The one year bulls were all sold but two, but 6 bull calves have come to hand to date, and we need not add that they are good ones. A red two-year-old Kinellar bull was also on hand, which is worthy of a place in a good herd. The stock bull Vermilion, bred by A. Cruikshank, Sittytton, and from the sire Cawdor (44506), and the dam Hyacinth, by Pride of the Isles (35079), a Victoria cow also bred at Sittytton, and a sister to the invincible Van Tromp

**FOR SALE.**

**ONE GRADE PERCHERON STALLION**, coming three years old, color black. For further particulars apply to W. H. CARPENTER, Winona, Ont. ap-1f

**SHORTHORN BULLS.**

6 excellent young bulls, 6 months to year old, and a few young heifers. Come and see them, or write. Fatm, 3/4 miles from station. JNO. D. PETTIT, Paris, Ont. fe-1f

**FOR SALE CHEAP.**

**IMPORTED CLYDESDALE STALLION**, (registered B. C. S. B.) rising five years, sound, quiet and sure, a grand horse every way, \$500 less than same horse could be bought from importer. Also, fine well-bred Roadster Stallion, large and sound, four-years-old; for sale much below value. Address M, care STOCK JOURNAL, 48 John St. South, Hamilton, Ont. fe-3

**IMPORTED BULLS FOR SALE.**

**SIX YEARLING BULLS**, dark roan, bred by A. Cruikshank, Esq. Several of them are from his best tribes, and as good as any I ever imported.

JAS. I. DAVIDSON, Balsam P. O., Ont.

**SHORTHORNS FOR SALE.**

**BULL CALVES, HEIFERS AND YOUNG Cows** in calf, also Southdown ram lambs, Shearlings and Ewes, all bred direct from imported stock from the best breeders in Britain. Prices moderate. Write for particulars to SETH HEACOCK, Oakland Farm, Kettleby, Ont. nov-6

**BUY A BULL.**

At my sale, April 7th, if you don't get suited before that time I will sell 10 good ones from 10 to 28 months old; also 35 cows and heifers—15 cows with calf at foot, and in calf again to first-class bulls; also a fine lot of yearling and two-year-old heifers. Send for catalogue of pedigrees. Address, JOHN O. SNELL, EDMONTON, ONT. mar-2

**DON'T BUY A BULL.**

Until you have written for prices to the undersigned. We have the best lot of young Bulls we ever offered, mostly by imp. DUKE OF OXFORD, 60th; which we will sell at prices to suit the times.

RICHARD GIBSON, DELAWARE, ONT. fe-1f

**INFORMATION WANTED.**

Can any of your readers give any information as to ancestors of "ROSANNA," which appears in the following pedigree of "Prince of the West," whose pedigree traces in two distinct entries in Herd Books? In one his

G. g. g. dam, Rosanna, by Young Forester, 67, is described as a daughter of Beauty, by Brilliant, 30; her g. dam, Moss Rose by Comet 4663; g. g. dam, Ruby by Agricola (1614); Beauty (imp.) by Snowball (2647).

In the other his G. g. g. dam, Rosanna by Young Forester, 67, is described as a daughter of Beauty by Brilliant 173, 30, as above; then no g. dam appears, giving it thus: — by Comet (139), 4663, and go no farther. The Dominion Short Horn Association Committee will feel greatly obliged for any information on this pedigree.

There is also the pedigree of LILY, by young Farmer 62, on which we seek information. Her pedigree runs thus, traced through Baron 2nd:

By the Guelph Baron (869), 4419; dam, Lady by Alfred (12) 1187; g. dam, Moss Rose by Young Forester, 67; Daisy by Comet (139), 4663; Lily by Young Farmer (243), 62. No evidence yet received traces her to an imported cow. All information in each case will be gladly accepted by the Society, directed to Mr. Wade, Secretary, at their offices in Toronto.



**FOR DESTROYING TICKS AND VERMIN** on Sheep Cattle and Horses, Leicestershire Tick and Vermin Destroyer is well worth the price, yea, double the price. It was first used in England with wonderful success, and has now been introduced into Canada, and is sold at 30 and 60 cents a box: one small box is sufficient to treat 20 sheep. It effectually destroys Ticks, Lice, Worms or Grub, to which sheep, horses or cattle are subject, and enables the animal to thrive. It is used as a wash. Sold by druggists. G. C. BRIGGS & SONS, Agents, Hamilton, Ontario. ap-3



**NOTICE.**

**SEALED TENDERS** addressed to the undersigned, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of **TUESDAY, 20th APRIL, 1886**, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1887, consisting of Flour, Bacon, Beef, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c., duty paid, at various points in Manitoba and the North-West Territories.

Forms of tender, giving full particulars relative to the supplies required, dates of delivery, &c., may be had by applying to the undersigned, or to the Indian Commissioner at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately, or for all the goods called for in the Schedule.

Each tender must be accompanied by an accepted Cheque, in favor of the Superintendent General of Indian Affairs, on a Canadian Bank for at least five per cent of the amount of the tender, for Manitoba and the North-West Territories, which will be forfeited if the party tendering declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted, the cheque will be returned.

Tenders must make up in the Money columns in the Schedule the total money value of the goods they offer to supply, or their tender will not be entertained.

Each tender must, in addition to the signature of the tenderer, be signed by two sureties acceptable to the Department, for the proper performance of the contract.

In all cases where transportation may be only partial by rail, contractors must make proper arrangements for supplies to be forwarded at once from railway stations to their destination in the Government Warehouse at the point of delivery.

The lowest, or any tender not necessarily accepted.

**L. VANKOUGHNET,**

*Deputy of the Superintendent-General of Indian Affairs.*

Department of Indian Affairs, }  
Ottawa, March 3rd, 1886. }

**FOR SALE.**

**Herd of Registered Shorthorns.**

Consisting of bull, 3 cows in calf, 2 bull calves, 1 heifer calf—most of them prize-winners, including first at Toronto, Ottawa, Hamilton, Guelph, etc. Will be sold cheap if taken together, as owner is quitting the business. Apply,

mar-3 MAJOR LLOYD, Oakville, Ont

**DISPERSION SALE**

—OF—

**PURE BRED**

**AYRSHIRES**

The subscriber will sell at his farm, Con. 3, Lots 4, and north 1/4 of 5, in block 1, Township of Binbrook, Co. of Wentworth, by Public Auction,

**ON WEDNESDAY, APRIL 28th, 1886,**

his entire herd of pure bred Ayrshires, comprising 45 head, of which 17 are cows, two years and upwards, 7 of them yet to come in by date of sale, all good milkers, the oldest not more than six, 5 are two year heifers, two are yearling heifers, and 5 heifer calves. There are 5 bull calves, 7 yearling bulls, and three two years old.

The herd, all grounded on the noted prize winning stock of J. Jardine & Sons, and all descended from the celebrated Mars I. [803], is headed by the Exp. Farm bull, Stoncalsey, (309), (2435) imp. All the calves are by this bull, and those yet to come. The two year heifers are also served by him. The farm of 350 acres of good strong land, a stock farm for many years past, of which 250 acres are in a good state of cultivation, well watered, and possessing a first-class dwelling house and commodious barns, in a good state of repair, is also offered for private sale.

Parties coming by train will be met at the Victoria Hotel, King Street east, Hamilton at 10 a. m., and conveyed to and from the sale. They will please drop a card in good time, intimating their coming.

Sale to commence at 1 p. m. sharp. No postponement; if the day is unfavorable, sale will be held under cover.

**TERMS.**—All sums of \$10 and under, cash; over that amount credit on furnishing approved joint notes. Six per cent. per annum off for cash.

Send for Catalogue.

**HORACE HENRY.**

"Fairview Farm"  
Woodburn P. O., Ont.

ap-1

**Stock Notes.**

[54160], owned by Shepherd, Hut & Mathers, has done wonderfully well. His color is faultlessly red, his style attractive, and he is exceptionally well covered on the shoulder. His back is right, so is his head, and we examined him pretty closely without finding what was not right. His brisket is 16 inches from the ground, and his heart girth 7 feet 6 inches. Of the many strong fleshy females that we saw, the Sittytown cow, Whin Blossom, standing on short legs, a very perfectly balanced cow soon to come in, was perhaps the plum. Ruby Hill with Campbell foundation, 3 years old, has proved a successful show beast. Buchan Lassie, by a Cruikshank bull Golden Crown, and the dam Buchan Lassie imp. is a great flesher, and a regular breeder. Scottish Lass 3rd, 9 years old, with a grand bull calf, and the dam of eight calves, bred by J. S. Armstrong, Speedside, and from Uppermill sire and dam, has well paid her way. These are but a few of the strong fleshy females which breed regularly at Thornville, calves that carry a large percentage of Cruikshank blood, and in which that percentage is augmented with every succeeding generation. Seven heifers one year old standing side by side told a tale of progression in breeding at Thornville, and one Peony, a very pretty, blocky beast with well sprung ribs, has never failed to carry the red wherever shown. She is by Mr. Gorwill's Glenmore Sittytown bull, Duke of Guelders (47740). The heifer calves are also very fine. The flock of Shropshire sheep on an imported foundation is low at Thornville, through recent sales, but will not be allowed to remain so long if English producers will part with good sheep.

The sale of Mr. J. Gibson, Denfield, was quite successful, considering the times. The average price for the 26 Shorthorns was over \$221 each, although quite a number of them were calves. The horses brought from \$60 to \$200 each, and the sheep \$7 to \$12 each, but the implements went low. The attendance was very large. There were present quite a number of buyers from the states, but we are pleased to notice that most of the stock was bought by our own countrymen. The following is a list of the animals, the prices paid and the purchasers. Lady Chesterfield, \$180, John Ballachey, Brantford. Lady Chesterfield 6th, \$165, John Ballachey, Brantford. Lady Chesterfield 4th, \$180, James Graham, Ailsa Craig. Lady Chesterfield 5th, \$180, John Weir, West Flamboro. Constance of the Manor, \$500, B. Sumner, Woodstock, Conn. 10th Constance of Manor, \$400, R. Gibson, Delaware. 6th Constance of Manor, \$500, R. Gibson, Delaware. Baron Constance 10th, \$200, J. R. Martin, Cayuga. 7th Constance of Manor, \$400, F. W. Cornell, Buffalo. 9th Constance of Manor, \$355, Wm. Gibson, Buffalo. 2nd Constance of Manor, \$210, James Smith, McGillivray. Malvern Gwynne, \$130, J. L. Campbell, Simcoe. Gipsy Gwynne, \$230, John Hope, Bow Park. 3rd Gwynne of the Manor, \$115, John Weir, West Flamboro. 4th Gwynne of the Manor, \$235, John Idington, Stratford. 5th Gwynne of the Manor, \$205, S. Brand, Forest. Governess 10th, \$50, J. Hodgins, Arva. Governess Gwynne 4th, \$190, John Idington, Stratford. Garland of the Manor, \$250, J. L. Campbell, Simcoe. Wild Eyes Le Grand 579, 931, \$305, W. Chapman, Mich., U. S. Baron Constance 8th, \$120, John Lochore, Clachan. Baron Constance 9th, \$160, G. M. Courtwright, Inwood. Lord Chesterfield, \$140, John Heywood, Exeter. Lord Chesterfield 2nd, \$155, M. Wallace, St. Thomas. Master Garland and, \$130, L. Kingsmill, Malahide. Lord Chesterfield 3rd, \$70, S. Black, Bluevale.

Pleasant memories float about our visit to the Beechwood herd of Shorthorns, kept by Messrs. C. G. Charteris & Son, of Chatham, Ont., and within two and a half miles of that place. It was founded in 1881, when Lord Byron (1881), was placed at the head of the herd. He is a massive, heavy fleshed bull, with strong fore and aft, and broad back, and carries a fine strong covering of dark roan hair over a nice handling skin. He was bred by W. H. Pardo, Buckhorn, Co. Kent, and sired by Sir John A. McDonald (1880), dam Countess and, bred by A. M. Pettit, Grimsby (vol. v, page 460, C. S. H. B.). A noted prize-winner in the neighborhood, he has proved himself a strong and potent sire. In 1882 Camden Belle 6th and Ida were bought from A. J. C. Shaw, Thamesville, both bred by him, both 2 years old and both sired by Ilderton Duke (2406). The dam of the former was Camden Belle 1st, by Marion Duke of Camden (1567), and of the latter, Lady Cecil by Francis Airdie (1256). In 1883 Lady Garland 5th (a red) dropped Feb. 2nd, 1883, by Marmaduke (8939), dam Lady Garland 3rd (vol. viii, C. S. H. B.), by 22nd Duke of Airdie (2994), 1669, and Gwendolen, by Rosy Prince and (1914), 2088, came from the herd of S. M. F. Fraser, Glendale, Ont. On the foundation furnished by these well selected animals, the good, substantial present useful herd of some 27 Shorthorns has been principally built. Some additions were made in 1884, from the herd of Mr. Wilmer, Chatham, and last autumn Crown Prince, dropped 26th Jan. 1884, bred by E. Loree, Rockwood, sire by Brilliant (12010), dam Alice (vol. 3, page 346, C. S. H. B.), by Bedford Lad 491, g.d. Lady, by Red Duke (598), tracing back through Favorite (252), to Alcock's Bull (19), was brought to Beechwood. He is a strong bull, red in color with good long even body, a good deal of right adjustment, and full of promise for the future. Camden Belle, Ida, and Lady Garland have each produced three calves in as many years, and Gwendolen four—conclusive evidence of a wise management in the treatment of the herd. Two bulls have been sold, and others are now offered. We are very much pleased to see so good a beginning in a country, evidently a good country naturally, where such a work is very much needed, and trust that the very hospitable owners of it will in due time reap the reward of which they are deserving.

**Aberdeen-Angus.**

Messrs. Hay & Paton, Kinnoul Park, write that they, through their manager, J. G. Davidson, purchased from Messrs. H. Walker & Sons, Walkerville, the entire herd of Aberdeen-Angus Polled cattle, owned by these gentlemen and imported by them in 1885. This is now the third Aberdeen-Angus transaction they have had with Messrs. H. Walker & Sons, and they take this opportunity of expressing their great admiration of the straightforward honorable dealing, which on every occasion distinguishes these gentlemen. This valuable herd includes specimens of the finest families of the day. At the head of the families composing the herds stands Heather Bell 3rd of Ab-1ow (5983), vol. 7, page 264, P. H. B. She is a grand 4-year-old cow, and apart from her fancy value as a prize-winner in Scotland, she inherits through her pedigree some of the choicest blood of the time.

**—IMPORTANT—**  
**AUCTION SALE**

On April 15th, 1886,

OF 13 HEAD OF

**SHORTHORN COWS**  
Heifers, and one Yearling Bull.

Eight cows and heifers calved or with calf; registered in the B. A. H. B.; from the Pomona family, imported for excellence as beefers, their size and milking qualities, which they yet retain, having for the last ten years used the Bates strain of bulls; cows of the herd milking 35, 38 and 42 pounds per day respectively, making 7, 9 and 12 pounds of butter per week each, by actual tests. (These cattle will appear in the forthcoming Dominion Herd Book.) Also

**20 Long-Wool Breeding Sheep and two General Purpose Horses.**

Lot 55, Talbot Road, Westminster, 6 miles north of St. Thomas, 2 1/2 miles from Glanworth Station, where a team will meet parties for the sale. Sale at 2 p. m.

**TERMS,** 12 months credit, without interest. Catalogues of cattle on application.

J. F. DAVIS, GLANWORTH, ONT.  
mar-2

**GREAT AUCTION SALE**  
—OF—  
**JERSEY CATTLE.**

Consisting of about 40 head of Theoughbred and High-grade Cows, Heifers, and Heifer Calves,

**On Wednesday, May 5th, 1886.**

At the farm of Wm. Wright, Esq., in Sandwich West, near Windsor, Ont. Some of these animals are registered in the A. J. C. C. Register; and among the lot are several superior butter and family cows, mostly new milk.

Sale will take place, rain or shine, and will commence at 10 o'clock a. m.

**Terms of Sale:** One year's credit, on approved joint notes. 6 per cent off for cash. All correspondence addressed to

**JOHN DIMON, Windsor, Ont.,**  
Auctioneer and Manager.

**—IMPORTED—**  
**SHORTHORN BULLS FOR SALE**

2 ROAN AND TWO RED WITH A LITTLE WHITE.

These are from the far-famed Sheriff Hutton Herd, which has produced the all-conquering LORD IRWIN (29123), the invincible SIR ARTHUR INGRAM (32490), the grand show bull LEEMAN (29031), also Fritz Irwin, Royal Irwin, Young Irwin, Sir Hugo Irwin, Sergeant, Fritz Arthur, Lord Arthur, Irwin Fritz Ingram, Arthur Benedict, Ovingham, etc., these all bred at Sheriff-Hutton.

The following are from Sheriff Hutton bulls and are all Royal prize winners, also, viz:

Self Esteem and, Gold Finder, Gold Digger, Royal Ingram, Golden Treasure, etc.

Sir Arthur Ingram—3453—(Bow Park Farm), which won both 1st and Champion prizes at Toronto and London in 1885, is from a cow bred at Sheriff Hutton, and imported by me, and Ingram Chief, (Bow Park Farm), 1st in his class at Toronto, 1885, was sired by old Sir Arthur Ingram (32490).

One of my Bulls is 3 years, red, 2nd, 2 years, red with little white; 3rd, 20 months, roan; 4th, 7 months, roan.

I will sell cheaper than the same class can be bought in England, to say nothing of freights, quarantine, risks, etc.

My farm is 24 miles North of Toronto, on Yonge St., Aurora, Northern & Northwestern Railway.

fe-2 **WILLIAM LINTON,**  
Aurora, Ont.

**WYTON**  
**Stock-Breeders' Association**

BREEDING OF PURE

**HOLSTEIN AND FRIESIAN CATTLE**  
A SPECIALTY.

We have the only pure breed of Aaggie Stock in the Dominion, the head of our herd being Sir James of Aaggie, No. 1452, H.H.B., Vol. 6. Also Aaggie Ida, No. 2600, H.H.B., Vol. 6. This family is noted for its exceptionally fine milk producers.

We have also for sale six bull calves, from 4 to 8 months old, in good condition. Prices reasonable. Correspondence solicited.

We would be pleased to have you call and examine our stock at any time. Address

**WM. B. SOATOVERD,**  
Secretary, Wyton, Ont.

Wyton is situated on the St. Mary's Branch of the G. T. R., ten miles from London.

Stock Notes.

She is of the Drumin Rose family, better known of late as the Heather-bell family, which has produced that grand group of the Patience family at Gavinwood, and also Pavilion (3772), vol. 5, page 103, P. H. B., bred by John Hannay, Gavenwood, and freely admitted to be the finest female of the breed ever seen in recent years—Heather Bell 3rd along with her promising heifer calf Heather Bell, of Kinnoull Park, will found a valuable and choice family in the history of the Kinnoull Park herd. The next in value to Heather Bell we place without any hesitation the graceful and lady-like Fair Maid the 3rd of Earnside (7257), vol. 8, page 334, P. H. B. She, like Heather Bell 3rd, has this year a very fine heifer calf—Fair Maid of Kinnoull Park 1031, C. P. H. B., and it would be hard to find two finer animals than mother and daughter, not only in appearance, but in quality of breeding. Old Lady Ann (743), the foundress of the Kinnaird Fanny 5, is believed to have been calved in 1820, being the oldest recorded cow in vol. 1, of P. H. B. The family has all along been famous for their milking qualities. Lucy 9th (5276), vol. 7, page 140, P. H. B. stands next in value. She comes of the Drumin Lucy family, and it has been generally admitted that the Lucy strain was the best family bred by Mr. Skinner. The same blood produced the Raglan (208) for whom Mr. Walker refused an offer of £230 from the Emperor of the French, as far back as 1856. Lucy the 9th has also a fine heifer calf, Lucy of Kinnoull Park after Waterside Standard (3374). The next in order comes Lady Ann 4th of Earnside (7261), vol. 8, page 334, P. H. B. Lady Ann comes of the Westertown stock, a herd established with the most systematic care and skill by the late lamented Geo. Brown. She has a fine heifer calf to Waterside Standard. Bate 2nd (7256), Gem 4th 5275, vol. 7, Meggie of Drumfurgue the 5th (6346), vol. 8, Princess 3rd (5279), and Maiden of the Glen the 3rd (8031), vol. 8, are four cows that would do credit to any breed, and they have, along with the remaining 14 cows, the advantage of having been imported, which adds not a little to the intrinsic value of a thoroughbred animal, not alone on account of the cost, but that the animals being matured in the old country climate seem to be constitutionally more valuable. The herd also includes 14 young calves principally by Waterside Standard (3374), and 3 young bulls—Waterside Burke (3217), vol. 8, imp. Hawthorn Prince (imp in dam), and the superb two-year-old bull Aberfield, of the Kinnaird family tripe, and sired by the pure Erica sire, Ermine Bearer (2082). The Messrs. Hay & Paton are certainly to be congratulated on the splendid purchase they have made, the choice of which reflects much credit on the judgment of the manager, Mr. Davidson. We trust the high expectations formed regarding its future may be more than realized.

Herefords.

The pure-bred Hereford calves advertised for sale in last number by Joseph Sharman & Sons, Suburban Stock Farm, Stratford, Ont., are good ones. They have done well during the past winter, especially the two heifers and bull got by the Ontario Experimental Farm bull, Conqueror, son of the celebrated \$20,000 bull, Lord Wilton. They are remarkably like the sire, and inherit a great many of his best qualities.

Holsteins.

The Messrs. Bollert Bros., of Cassel, Ont., report that they had their first Holstein Friesian calf for the season dropped on the 20th March. It is a bull calf, and when three days old weighed 123 lbs. His dam, a three-year-old cow, is starting with 54 lbs. of milk per day.

Sheep and Pigs.

If you want to purchase choice Swine, read advertisements of W. H. and C. H. McNish, Geo. Green, J. E. Brethour and Jos. G. Haig in this issue.

We are in receipt of a sample of long wool from the flock of Mr. Q. O. Lemieux, of Brandon, Man. It is good in quality, and very long. They are Leicester, very highly bred.

Mr. T. C. Patteson has sold 20 shearing Shropshire ewes, to Mr. J. Corbitt, of Ionia, Mich.; a bay pony to Mr. A. J. Cassatt, of Philadelphia; a pair of chestnut ride and drive horses to Mr. J. S. Allan, of Boston, Mass. The Kentucky bred bull Connaught Ranger, the Sanspareil bull Serapis, by 6th Earl of Antrim, and nine high grade heifers to Mr. A. Morrison, agent of the Medicine Hat Ranching Company. There are over 150 Shropshire lambs dropped already at Eastwood, mostly by imp Allsopp, and the list includes no less than four lots of triplets. In fact the fecundity of the Shrop seems to be among its characteristic excellences.

Mr. F. J. Ramsay, Dunnville, Ont., writes: "The following sales I have made within the past six months through advertising in your valuable paper—In Shorthorns, 1 yearling heifer to Wallace Tufts, Welland; 1 bull calf to D. H. Sensabaugh, Attercliffe; 1 cow to J. M. Vankeuran, Dunn. In Suffolks and Berkshires, 1 Suffolk boar to A. F. Miles, Stanstead, Que.; 1 boar and sow to Mr. Neff, of Humberstone; 1 sow to George Ralston, Bothwell; 1 boar to James Mulligan, Aylmer, Que.; 1 sow to T. J. Kelly, West McGillivray; 1 boar to J. M. Vankeuran, Dunn; also a Berkshire boar to same party. Have also made a number of sales of Leicester sheep and Light Brahma and Leghorn poultry. Have purchased from A. Frank & Sons, Chatham, importers, one of their prize Suffolk sows and a boar—sow carrying pig to Lord Nelson, an imported boar."

Mr. Ishmael Bartlett, Fulton P. O., Ont., has made the following sales from the herds and flocks of "Maple Grove," since last report: Berkshires—Sows—3 to John Jackson, Woodside, Abingdon; 2 to Ambrose Pettit, Grimby; 2 to Hamilton House, Grimby; 2 to Wm. Clark, Grimby; 2 to Robt. Kemp, Grimby, and 1 to Henry Gage, Hamilton; 1 boar to Tios, Hannah, Blackheath; 1 to N. H. Wickett, York; 1 to Wm. Hycle, Camden. Chester Whites—1 boar to Isaac Jenkins, Blackheath. Suffolks—1 sow to T. Hines, Caledonia; 2 boars and 1 sow to G. Haner, Caledonia; 1 boar to P. Adams, Clifton; 1 to D. Ramey, Harrisburg; 1 to Robert Lockman, Abingdon, and 1 to Nelson Jones, Attercliffe; 1 boar and sow to J. Mitchell, Caistorville; 1 sow to Albert Stuart, Abingdon; 1 to Almon

Important Auction Sale OF STOCK

WITHOUT RESERVE.

ON

Wednesday and Thursday, April 28 and 29, 1886

Of the entire herd of the late R. B. Ireland, at his late residence Nelson Village, 4 miles from Burlington Station, on the G. I. R. and the Northern & Northwestern R. R., and 2 miles from St. Annes, N. & N. W. R. R., comprising 60 pure bred Bates Shorthorn Cattle, (47 females and 13 males) all of which are entered for registration in the Dominion Shorthorn Herd Book. Also a number of Leicester Sheep, Farm Horses, Implements, etc., also a farm of 100 acres with steam saw mill.

Conditions made known on the day of sale for farm. Six months credit will be given on all sums over \$10.00 on stock and implements, on giving approved joint notes.

Sale to commence each day at 12 o'clock, noon. Conveyances will meet each train on the days of sale.

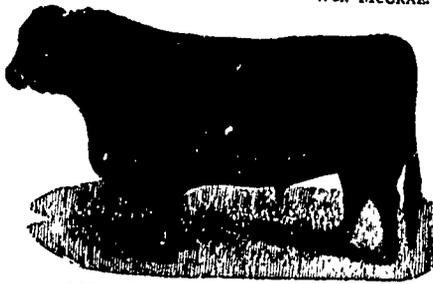
Catalogues of sale will be sent on application to John Ireland, Copetown, P. O., or to

MRS A IRELAND, Executrix. E. E IRELAND, } Executors. GEO IRELAND, }

ALTON HALL STOCK FARM.

H. SORBY.

WM. McCRAE.



IMPORTERS AND BREEDERS OF Galloway and Hereford Cattle, Berkshire Pigs,

and Plymouth Rock Fowls. Galloway Bulls, Cows and Heifers for sale, also imported Berkshire Boars and Young Pigs (near Guelph.) SORBY & McCRAE, Gourlock, Ont.

SAMPLE OFFER BY MAIL.

GRAPE VINES, 1 each Empire State and Niagara, with Co. Seal, guaranteed to arrive in good order, two year plants for \$2.00; or 1 year for \$1.00, all beautifully rooted; one each of Moore's Early, Wordon Wilder Black, for \$1.00; 1 each Vergennes, Brighton, Lindley, red, \$1.00; 12 Marlboro, red, and 6 Sonhegan Black Raspberry, \$1.00. Other stock, see Catalogue, free to all A. G. HULL, Central Fruit Gardens, St. Catharines, Ont.

D. & O. SORBY,

GUELPH, ONT.

Breeders and importers of registered

CLYDESDALES.

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

FOR SALE,

along with a few Canadian bred.

VISITORS WELCOME.

F. W. HODSON, Brooklyn, Ontario Co., Ont., breeder of F. Berkshires, Cotswolds, Bronze Turkeys, Toulouse Geese, Pekin Ducks, Plymouth Rock Fowls. Stock and Eggs for sale. Dominion agents for Dana's celebrated Stock Labels, for marking cattle, sheep and swine. Particulars on application.

FOR SALE.

ONE DOZEN LEGHORN FOWL (pure breed), AT ONCE. B. W. DONNELLY,

Ancaster, Mar. 30, 1886.

Bartlett, Fulton, and 1 to Fritz Johnson, Caistorville. Leicester Sheep—3 to J. W. Springsted, Abingdon, and 1 ram to A. Bartlett, Fulton. Southdowns—1 to J. W. Springsted, Abingdon, and 1 to Abram Nelson, Fulton. Mr. Bartlett writes that his stock have wintered well, and that at the fairs last fall they captured 97 prizes, five diplomas, and two sweepstakes, and that he is so well pleased with the JOURNAL that he will give it his hearty support.

Poultry.

From Mr. John Dimon, Windsor, Ont., we learn that the Dimon Creeper Fowls are taking well with the public this spring.

Mr. Thos. Shaw, of Woodburn, Ont., has just purchased from F. James, of Sherbrooke, P. Q. a Plymouth Rock cockerel of Mr. James' famous Pilgrim strain—a bird that would do credit to any breeder.

Those wishing choice Eggs and Poultry should read advertisements of G. H. Richmond R. F. Ivey, Jarvis, C. G. Keyes, Palmyra, J. C. McKay, Georgetown; D. H. Price, Aylmer; John Peattie, Stratford; Geo. Walker, Laurel, and M. Brophy, Brantford, in this issue.

FOR SALE SHORTHORN BULL

EARL OF GOODNESS 13th, calved Oct. 8th, 1882; red; got by Duke of Oxford 38th; dam 7th Countess of Goodness by Duke of Airdrie 18th; g. d. by Red Duke, etc. He is bred right and is right, and will be sold reasonable. Correspondence invited.

WM. TEMPLER, Jerseyville, Ont.

Clydesdales, Shorthorns, Shropshires, Cotswolds and Berkshires.

WE have on hand at the present time the largest and choicest selection we have ever had of Imported Clydesdale Stallions and Mares, Imported Shorthorn Bulls, Cows and Heifers, Imported Shropshire Rams and Ewes, Shorthorns of our own breeding from imported stock, and Shropshires of our own breeding from imported, prize-winning animals. The Shorthorn Bulls comprise a number of imported and home-bred show animals, and the heifers have already won many prizes. All the pedigrees are guaranteed.

TERMS EASY, AND PRICES ACCORDING TO THE TIMES

Our stations are Claremont, C. P. R., and Pickering, G. T. R., where visitors will be met by writing or telegraphing us at Brougham. This is our fifty-first year in the business, and our long experience enables us to suit mostly all our visitors.

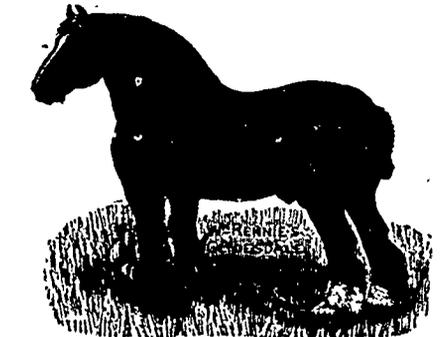
John Miller & Sons, Brougham, Ont.

JAMES GARDHOUSE & SONS, MALTON, ONTARIO, CAN.

Breeders and importers of CLYDESDALE & SHIRE HORSES,

Shorthorn Cattle and Berkshire Pigs. Young Stock for sale. Terms reasonable.

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



CLYDESDALE HORSES.

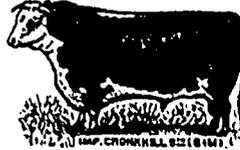
I HAVE FOR SALE A FEW IMPORTED FILLIES AND STALLIONS. These are superior animals, all registered in the Clydesdale Stud Book of Great Britain and Ireland.

WM. RENNIE, TORONTO, CANADA.

**THE GLEN STOCK FARM,**  
INNERKIP, OXFORD CO., ONT.



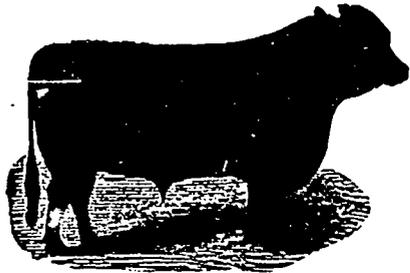
**SCOTCH SHORTHORNS,  
HEREFORDS,  
ENGLISH SHIRE HORSES.**



SEVERAL grand Heifers and Bull Calves for sale at reasonable prices, out of imported cows by imported Earl of Mar (47851), winner of Gold Medal at the Grand Dominion and 39th Provincial Show and First Prize at the last Industrial Exhibition at Toronto, also some very fine Hereford heifers and bull calves, by imported bulls, out of imported cows for sale. Cronkhill 8th (8461), our imported Hereford stock bull, was winner of silver medal for best Hereford bull of any age, at the Industrial Exhibition, 1884, and also of the silver medal at the Grand Dominion and 40th Provincial Exhibition, 1885.  
P. O. and telegraph office at Innerkip. Farm is one mile from Innerkip Station, on C. P. R. (Ontario Division), and a short distance from Woodstock Station on the Canada Pacific and Grand Trunk Railways.

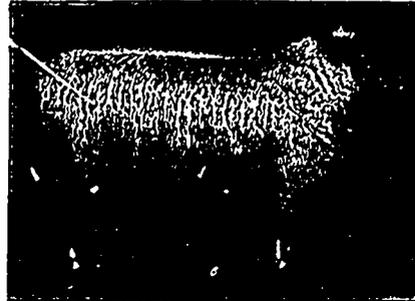
**GREEN BROS., THE GLEN, INNERKIP.**

**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.**

**HILLHURST HERDS**

HEREFORD,  
ABERDEEN-ANGUS,  
SHORTHORN  
—AND—  
JERSEY CATTLE.



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

**J. & W. B. WATT**  
ELORA STATION, SALEM P.O., ONT.

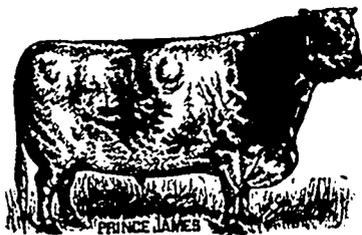


SIXTY-FIVE head of Shorthorns of the Cruickshank strain, imported and Canadian bred. Winners of the Elkington Shield, value \$250, for the best herd of twenty cattle of any breed.

**OUR CLYDESDALES**  
comprise ten mares, with the imported stallions Lord Aberdeen and Bravery.

A few choice **BERKSHIRES** kept  
STOCK OF ALL KINDS FOR SALE.

**JOHN FOTHERGILL & SONS,**  
Burlington, Ont.



Importers and breeders of Shorthorn Cattle, Lincoln and Leicester sheep.

**PRINCE JAMES,**

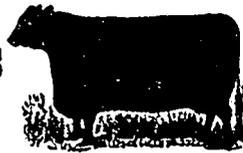
The highly-bred Shorthorn bull, winner of 3 silver medals, 8 diplomas, and 20 first prizes at the leading exhibitions in Ontario, at head of herd. A number of choice young bulls and heifers, sired by Prince James, for sale. Visitors welcome. Correspondence invited.

**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.**

Bates Shorthorns.

**THE BELVOIR HERD.**



To this herd belongs the honor of having made the highest average at public auction in 1883,

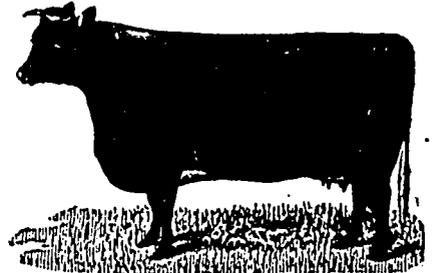
Of any Herd, of any Breed, on this Continent.

The Proprietor intends to fully keep up this high standard, and invites all interested to call and see for themselves.  
Prices to suit all. Young bulls will be sold for less than they can be got elsewhere, of similar breeding and merit.

**Richard Gibson**

Komoka Station, G.W.R., three miles. Delaware.

**FRANK R. SHORE & BROS.**  
R. R. STATION, LONDON, P. O., WHITE OAK.



—BREEDERS OF—  
**SHORTHORNS AND SHROPSHIRE**  
Have one capital yearling bull still for sale, a red, of Dec., 1883, from imported sire and dam, first at the late Co. Middlesex Spring Show, also a very choice lot of heifers, now in calf to the imported Cruickshank bull Vermillion (60587). Prices moderate. Terms easy.

**BOW PARK.**



**THOMAS NELSON & SONS,**  
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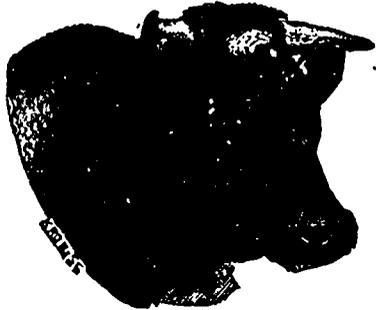
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Herd headed by the Bates bull Duke of Rugby, and bred with strict reference to individual merit and milking qualities. Animals recorded in both American and B. A. herd books.  
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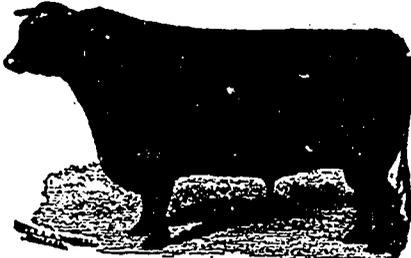
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Has on hand and for sale, at moderate prices, six choice young bulls, from 10 to 20 months, sired by Mr. Fothergill's noted show bull Prince James—95—; also several cows and heifers in calf to my Sheriff Hutton bull The Premier—4757—  
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The highly-bred Booth bull Lord Monrath—2298—, is at the head of the herd. Lord Monrath was bred by Sir Hugh Aylmer, of West Dereham Abbey, Stokeferry, Norfolk, Eng. The Mantilina, Lady Day, Roan Duchess and Princess strain. Young stock always on hand for sale. Correspondence solicited.

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(VERY FINE)

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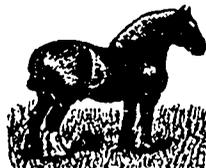
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LORD ELCHO, dark chesnut, standing 16 hands, weight 1200 lbs., a fine rangy up-standing horse, bound to make his mark anywhere, foaled June 2nd, 1876, by Warmable, (winner of the gold medal at the Centennial Exhibition, Philadelphia, against the world) dam Lady Marsh by Bob Marshall; Warmable by Mountain Deer, he by Touchstone, out of Mountain Sylph, by Belshazzar, etc. For particulars as to price, etc., apply to Address, W. H. MILLER, Severn Bridge, Ont.

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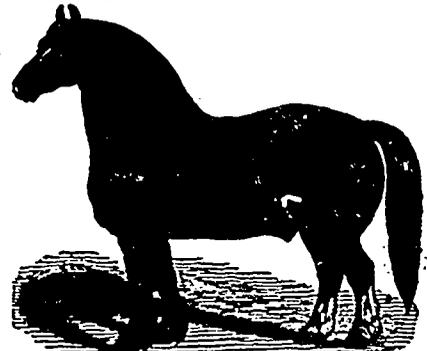
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First-class animals, registered in the 7th vol. Scotch Clyde Stud Book, and from the most noted sires and dams in Scotland. Apply to



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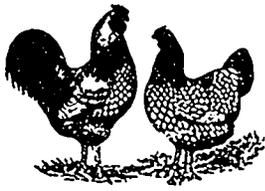
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Having purchased our stock of poultry from first-class breeders in Canada and the United States, we now offer for sale eggs of the

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Varieties, at \$2 per setting of 13.

And of the **GOLDEN POLAND** and **WHITE C. B. POLAND** and **PEKIN** and **ROUEN DUCKS** (imp. stock), at \$2.50 per setting of 13.

Please order early to prevent disappointment.

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A good chance for farmers and breeders. We will spare a few settings of eggs from our

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Eggs, \$1.50 per setting of 13, \$2.50 for 26.

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Awarded 1st on cockerel, 95 points, 1st on pullet, 94 points, 1st and 2nd on hens, 95 and 93 points.

Yard No. 1 contains hens 95, 95 pullets 94, 93, 92, 94 mated with a magnificent and tried breeding cock, weighing 13 lbs.

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EGGS from yard No. 1, \$2 per 13. From yard No. 2, \$1.50 per 13. Also eggs from Silver Spangled Hamburgs and S. C. White Leghorns, each kept on separate farms, \$1.25 per 13, \$2 per 26. A No. 1 birds for sale at all times. 100 chickens after September. Send stamp with enquiry.

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FROM—

roughbred Wyandottes, R. C. B. Leghorns, Langshan and Light Brahma fowls. No better stock in Canada. Send post card for illustrated catalogue and price list, 1886.

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**DARK BRAHMAS**.—Two magnificent yards; one containing two imported pullets and some very fine ones of my own breeding, headed by the best cock I ever owned. The other some grand hens and an imported cockerel. Eggs \$3 per 13.

A large yard of very fine P. Rocks, selected from my own yards, and three of the best breeders in Canada. Eggs \$2 per 13.

A small yard of very fine Wyandottes from which I will sell a limited number of eggs at \$3 per 13.

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I have for sale now 25 pigs, farrowed 20th Mar (of the well known Baldwin stock). Price \$5 a piece at 7 weeks old. Also two good Partridge Cochins Cockerels, \$2 each. One good Light Brahma cockerel, \$3. At the Owen Sound Poultry and Pet Stock Show, held in January 1886, I took 1st first, 7 second and 3 third prizes, in six varieties. Langshans, Light Brahmas, Partridge Cochins, Houdans, Plymouth Rocks and Rouen Ducks, my duck reaching the high score of 93 points, and drake 83, by L. C. Jarvis, judge.

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Wyandottes (Hull & Millington strain) \$2.50 per setting of 13. Four young cockerels for sale at \$2 each. Plymouth Rock eggs \$2 per setting of 13. C. G. KEYES, Palmyra P. O., Ont. ap-1

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**EGGS** for Hatching—**EGGS**

Wyandottes, per setting, \$4.00	Plymouth Rocks.....\$3.00
RoseComb Brown Leghorn 3 00	SingleComb White Legh n 2.50
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No better stock can be had  
Orders booked now. Send stamp for reply  
Thoroughbred Jersey Cattle for Sale. Prices low.  
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The best breed for all purposes—good layers, best table fowl, and non-scratchers. Originated by the subscriber, who has the only flock in the world. Eggs \$2 per setting, cash to accompany orders. A few pairs for sale. All inquiries promptly answered.

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**LIGHT BRAHMA**  
—AND—  
**"BROWN LEGHORN"**  
Cockerels for sale. Brahmas \$2 each. Leghorns \$1.50 each.

Light Brahma Eggs, McKay's Strain, \$2.00 for 13. Brown and White Leghorn Eggs, \$1.50 per 13. The above is from first prize stock.

Orders promptly filled and only fresh eggs shipped.

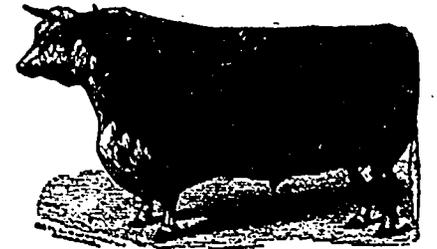
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Bred from imported stock.

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12 months old, sired by imported Bates Bull. Cows and Heifers, same strain, for sale.

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Young bulls for sale very cheap.  
Also a number of fine SHEEP from thoroughbred Cotswold dams and imported Hampshire and Shropshire Down rams.  
ap-y. **G. F. BENSON,** Cardinal, Ont.

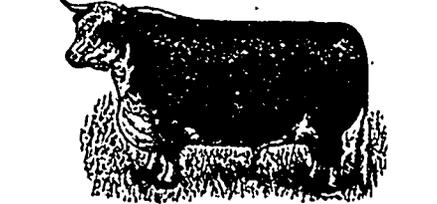
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FOR SALE.  
All eligible for or already entered in the "American Herd of Record." Amongst the sires of my herd are Auctioneer, Careful, Hayden Grove, Downton Boy, King Pippin, and Cassio. Also a fine lot of imported  
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The herd embraces the Lady Wintercott and Formosa strains amongst others, and is headed by Tushingham (8127), by Charity 3rd (6350), by The Grove 3rd, (5051). 19 calves bred from 7 cows and heifers in two years. Young Stock for sale.

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Half a mile from C. P. R. and G. T. R. Stations.  
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The property of H. M. Williams, of the Hallowell Stock Farm.  
Dam, Krijtje, with a milk record of 96 1/2 lbs. per day, and  
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The Largest Herd of Holsteins in Canada.

Sir Archibald won the sweepstakes silver medal at Toronto Industrial, 1885 and also headed the sweepstakes prize-winning silver medal herd at the above fair, and also at London. The cow Nixie L., in the above herd, also won the first prize for milk test, at London, for quantity and quality. I have ten young thoroughbred Holstein bulls for sale, one and two years old.

All stock for sale. No reserve.  
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A HISTORY of the breed, with milk and butter records, description of beef qualities, and also illustrations of the most noted animals, compiled by the undersigned. Price 50 cents. Stock bought and sold on commission. Address,  
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Cows with well-authenticated test of from 14 lbs. to 24 lbs. 13 oz. in one week, and from 81 lbs. to 106 lbs. 10 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.  
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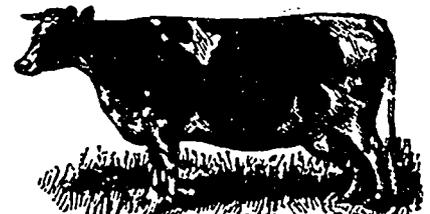
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Other Fowls, Scotch Collie Dogs, etc.

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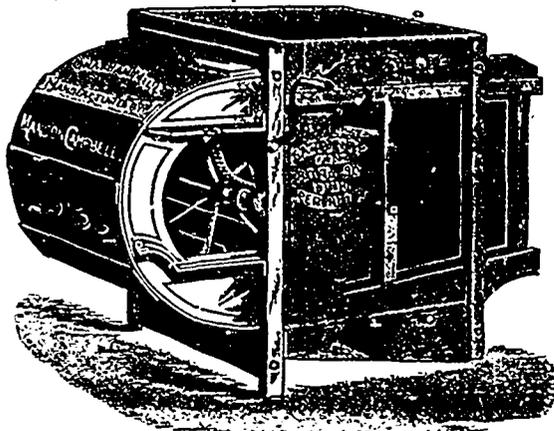
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**Fine Grade Herefords, Polled Angus, Jersey and Holstein Cattle.**

equ. to registered stock in every particular except pedigree. Also for sale a prime lot of Suffolk Swine. Prices low, considering quality of stock. Satisfaction guaranteed. Can fill orders promptly.

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1330 MILLS  
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1885.



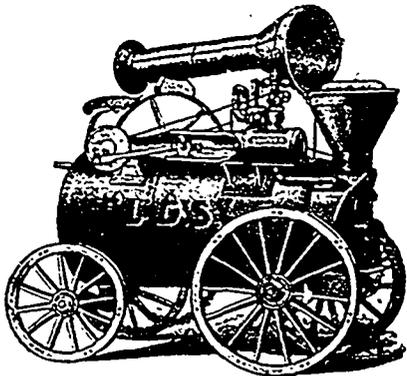
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A Thoroughly Reliable Fanning Mill, for cleaning and separating all kinds of Grain and Seeds. Sold on liberal terms and delivered freight paid to any station in Canada.

AGENTS WANTED IN EVERY COUNTY. Send for circulars and prices.

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Awarded FIRST PRIZES, 1885, at Provincial Fair, London; Central Fair, Hamilton; and Northern Fair, Walkerton.

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Tread Powers for 1, 2 and 3 Horses.

Light Separators for Tread and Sweep Powers.

SEND FOR ILLUSTRATED CATALOGUE.

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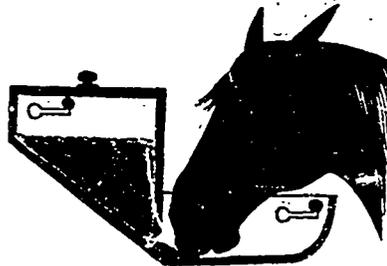
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New Price List just issued for Free Distribution. Over 200 of the finest farms in the State fully described. Also a map of Michigan, showing railroads, towns, cities, etc.

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Who leads in this line.

**BUY ONLY THE GENUINE**



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A FEW choice head of Thoroughbred Ayrshires, male and female, from the undersigned's celebrated stock, so much appreciated for its well-known milking properties, and which, as such, obtained, twice, the 1st prize at the Ottawa Dominion Exhibition; also the 1st prize for the best herd at Hochelaga County Exhibition for 1884. For particulars apply to

JAMES DRUMMOND,  
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**NOTICE TO CONTRACTORS.**

Change of Time.

THE time for seeing the plans and specifications for the

INFANTRY SCHOOL,

AT

LONDON, ONT.

is hereby changed to TUESDAY, the 23rd instant, and the time for receiving tenders to WEDNESDAY the 7th APRIL.

By order, A. GOBEIL, Secretary.

Department of Public Works,  
Ottawa, 12th March, 1886.

**GEORGE GREEN,**  
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BREEDER OF

**BERKSHIRE HOGS**

My Berkshires won 42 prizes at the leading shows of Ontario last fall, including First and Second herd prizes at the Industrial Exhibition at Toronto. They won 92 prizes at the leading shows the last three seasons. I have for sale a nice lot of spring pigs, the gets of first-class boars and sows. They are eligible for Canadian and American records. Satisfaction guaranteed.

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LYN, LEEDS CO., ONT.  
(5 miles west of Brockville, on G. T. R.)



W. H. & C. H. McNish, Proprietors.  
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The following stock:  
Young Berkshire Pigs, from imported and home-bred sows, and sired by our imported and prize winning boar, "Lord Preston." A choice lot of young sows in pig, both imported and home-bred, and boars fit for service.  
The two-year old prize-winning Ayrshire bull "Shaftesbury," a choice animal. Correspondence solicited, and personal inspection invited.

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My Herds were awarded in the last two years at the Dominion the Industrial, and other Great Fairs, 65 First Prizes, 10 Seconds to Thirds, 8 Specials, 6 Medals and Diplomas.

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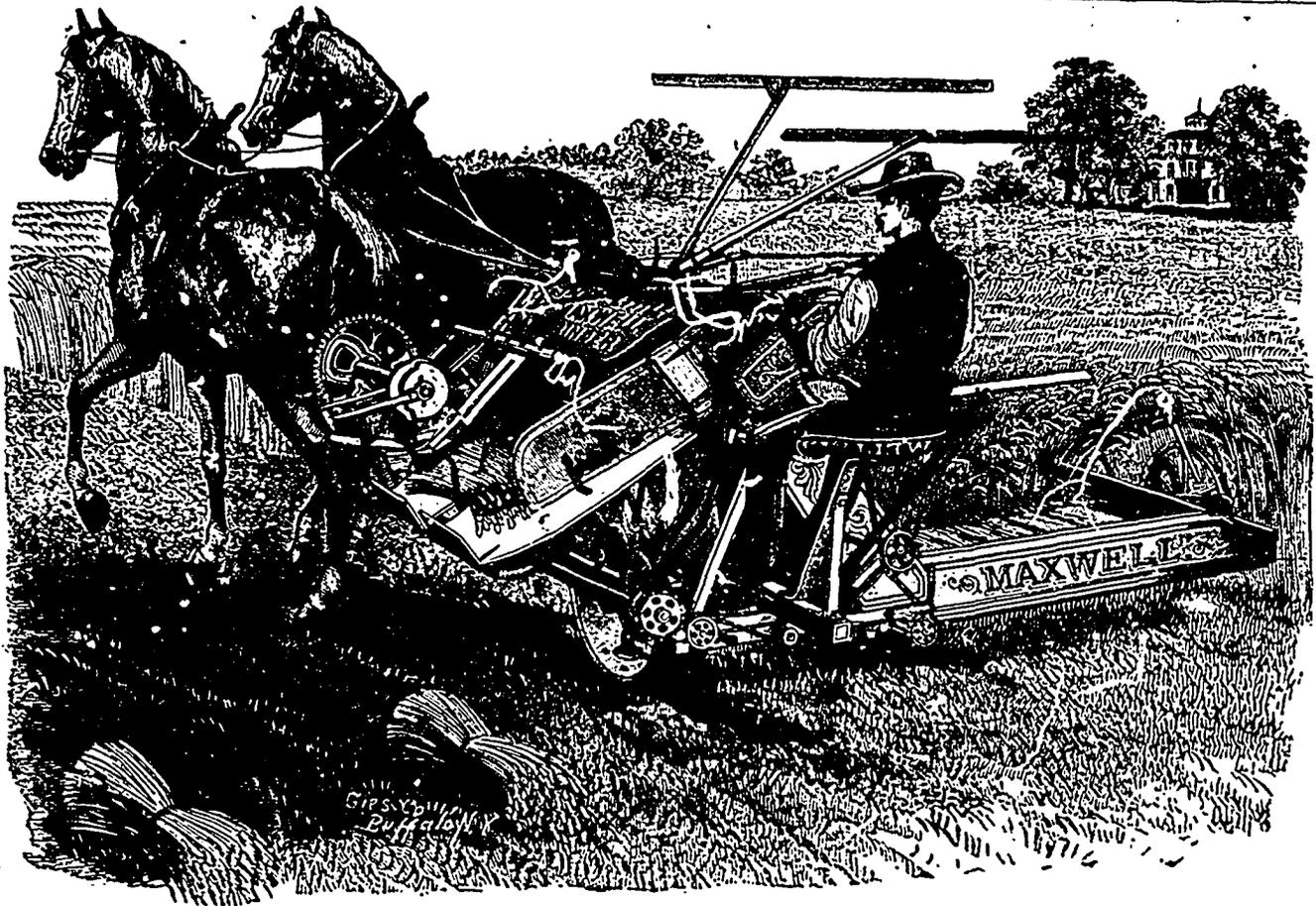
Importer, Breeder and Shipper of

**AYRSHIRE CATTLE,**  
Chester White, White Lancashire, Small Yorkshire, Jersey Red and Poland-China Swine Oxford Down Sheep Scotch Collie Shepherd Dogs, and all the profitable breeds of Poultry.

Write for free Catalogue and Price List before purchasing.

**WANTED.**

2	thoroughbred	Chester White Sows	} All from six to twelve months old.
2	"	Elmsmere Sows	
2	"	Suffolk Sows	
2	"	Poland China Sow	
1	"	Suffolk Boar	
Address, P. M. WARD, Bedford, N. Scotia.			



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The **LIGHTEST**, **SIMPLEST** and most **EFFICIENT** WORKING machine in the market.

**THE ONLY RIGHT-HAND MACHINE BUILT.**

Farmers! do not fail to see this machine before buying. Send for Illustrated Catalogue.

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Spring has come, and now is the time to feed your  
**HORSES,**  
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**SWINE, and**  
**FOWLS**

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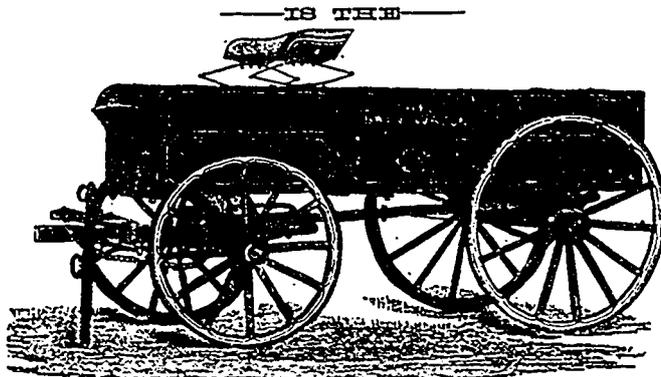
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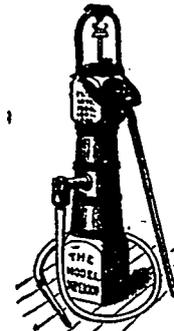
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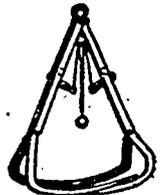
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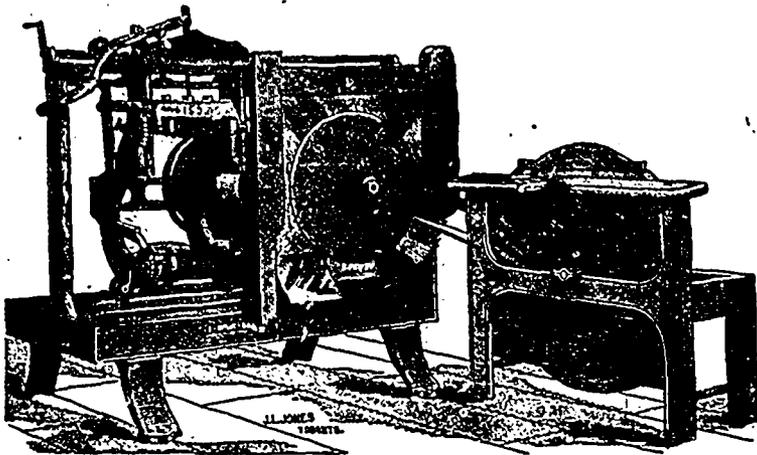
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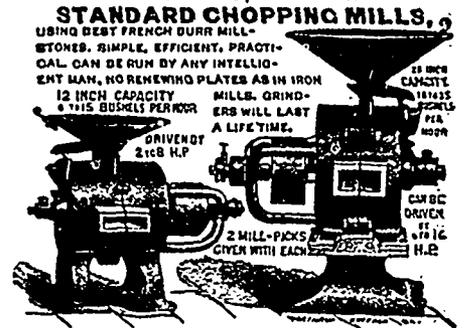
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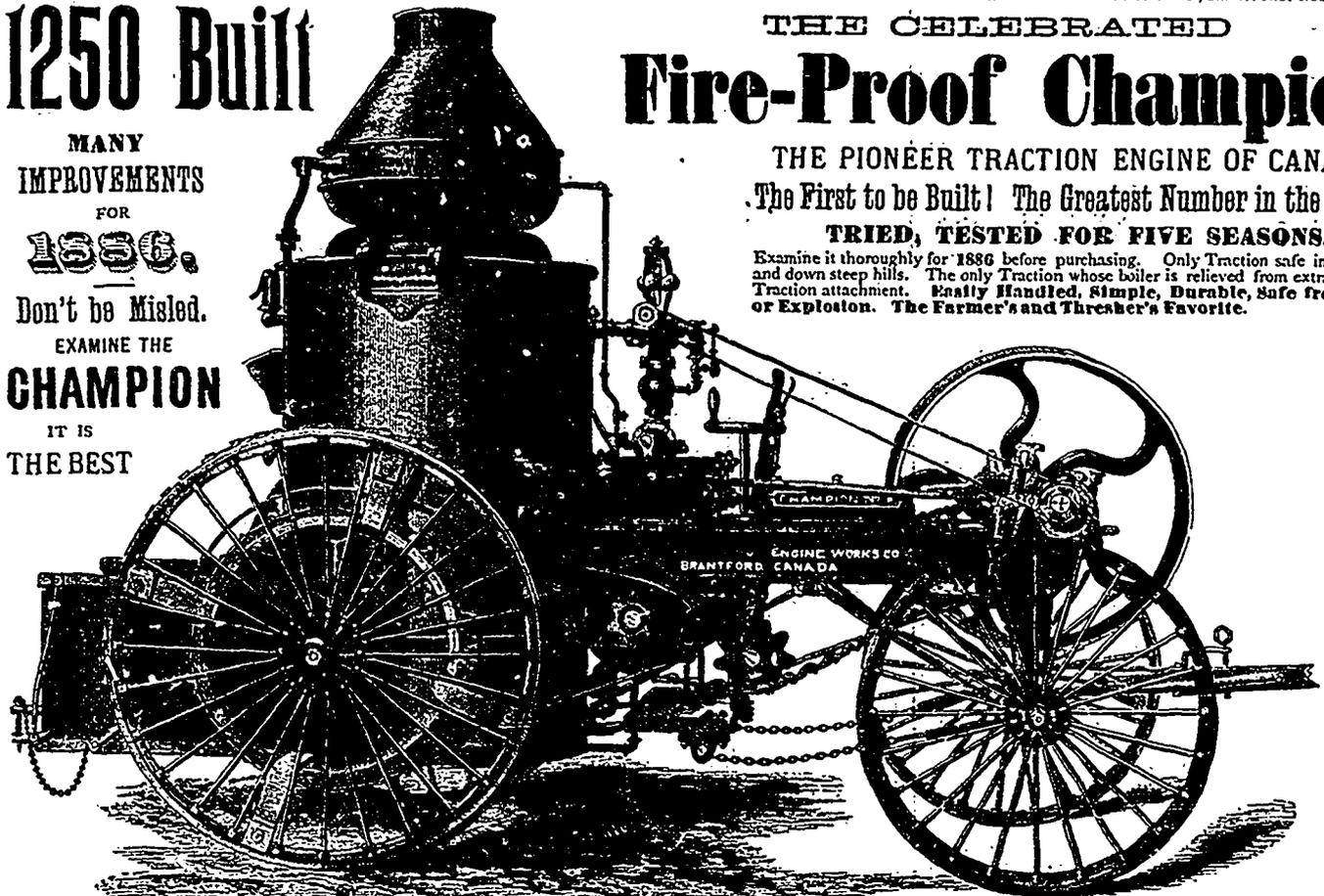
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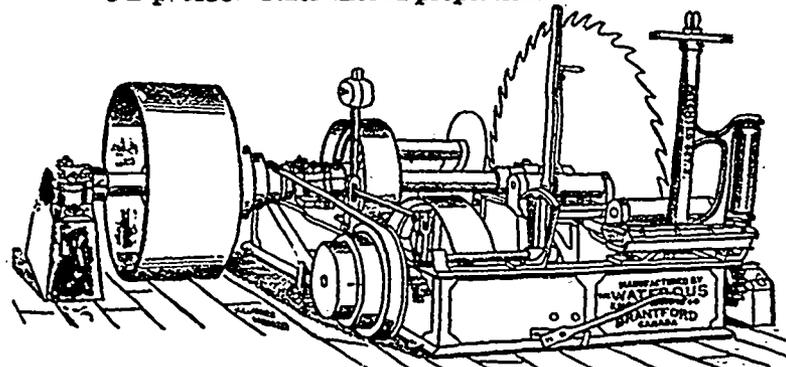
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I like the 12 H. P. Champion Traction Engine, 1,157, which I bought last season, very much. I unloaded it at station, filled it with water, and steamed it up home, and have never had the tongue or it since, although I have run it all the season through the very muddy roads of this fall. I have been up and down the mountain, which is something over 100 feet high, without the slightest trouble. I like the engine very much, and would prefer a Traction to a plain engine. I have two engines, the Traction and 12 H. P. Champion, No. 248. I have run 248 for six seasons, with not over six dollars repairs, and this was for heater pipes burst by frost, and a new globe valve.—Signed, SAMUEL HONSBERGER.

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I can say that my 20 inch Standard Chopper gives good satisfaction; also my 12 H P Traction Champion gives great satisfaction. I have not had one cent repairs on the engine, and I have travelled across roads where other engines had to have two teams on to cross over. I took the water tank along and traveled through mud through which the platform dragged. We crossed hilly roads that a horizontal boiler would not have been safe to cross for danger of burning the tubes, as for about two miles we had only about 40 or 50 rod of level road. The most of the hills average from one to four foot of pitch in 12 feet.  
Yours truly,  
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