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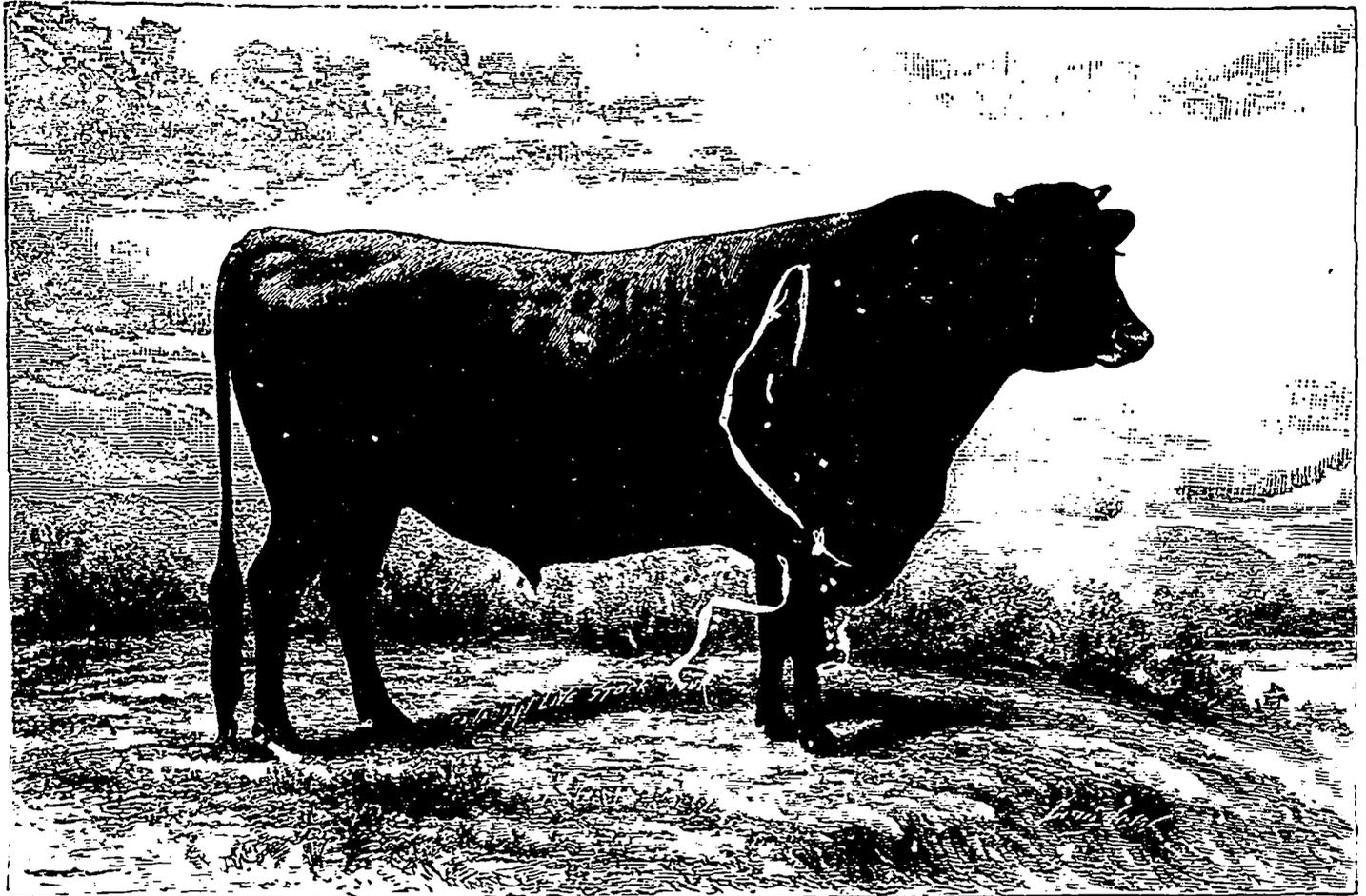
# CANADIAN LIVE-STOCK JOURNAL.

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

VOL. III.

HAMILTON, CANADA, MAY, 1886.

No. 5



## THE JERSEY CANADA'S JOHN BULL 8388, A. J. C. C.

*The property of Mr. Valancey E. Fuller, Hamilton, Ont.*

### Canada's John Bull 8388, A. J. C. C.

The above sketch of this prince of Jersey bulls by our artist is a very good one, and represents him true to life. He is owned by Mr. Valancey E. Fuller, Hamilton, Ont., and stands at the head of his famous Oaklands Jersey herd.

Mr. T. S. Cooper, of Coopersburg, Pa., one of the best of living Jersey authorities, considers him one of the best bulls in individuality that he has ever seen an opinion the correctness of which has been sustained by his show-yard career. At the Dominion and Provincial Exhibition, at London, in 1885, and at the Industrial, Toronto, he captured the silver medal, thus declaring him the sweepstakes bull in the Province, and at the Great Central, at Hamilton, the same year, the first-class Diploma. The herd at the head of which he was shown, also won the first prize silver medals at the two former of these fairs, and the champion cup at the latter.

Canada's John bull weighs probably 1,600 lbs., and yet is not coarse in the slightest degree, as his weight might indicate. He is so inbred to Stoke Pogis 3rd, the sire of Mary Anne of St. Lambert, and this great family, that he impresses its likeness upon all his get. He is solid in color, and has never

been known to produce other than solid colored calves, it matters not as to what cow he may be bred.

He possesses more of the blood of old Stoke Pogis 3rd than any bull in the world, except his own son, now a calf, by his own mother, and has 96% per cent. of the same blood elements as Mary Anne of St. Lambert, a larger percentage than is possessed by any other living Jersey.

We need scarcely add here that Mary Anne of St. Lambert is the champion butter cow of the world, having made a record of 367 lbs. 14 $\frac{3}{4}$  oz., of butter in less than a year, in her four year old form and under the strictest supervision, and her wonderful test of 36 lbs. 12 $\frac{1}{2}$  oz. in seven days, is now a well known fact wherever dairy cattle are kept, and we may add here a fact that is deserving of being known wherever dairy butter is eaten.

### Prize Farm Competition for 1886.

The Council of the Agricultural and Arts Association offer this year three gold sweepstakes prizes for competition. Those only are eligible to compete who have been awarded medals hitherto in the various districts of the Province. The value of the prizes will be \$100, \$60 and \$40 respectively, and will be given

in the form of plate or other articles that will be kept in the family in after years as a memento of the honor achieved. Any farmer desirous of competing shall make his application in writing to H. Wade, Secretary of the Association, by the first day of June next, stating at the same time the number of the lot and concession, the post-office and the county. Two judges are to be appointed, and in case of dispute the referee shall be the President of the Association, Mr. H. Parker, of Woolstock. The examination of the judges commences June 21, and is to be completed before the holding of the next Provincial Exhibition in September. Their report is to be submitted to the Council and forwarded to the Commissioner of Agriculture.

### Shorthorn Registrations.

The work of revision is going quietly on and is being as rapidly advanced as the intricate nature thereof will allow. Every Shorthorn breeder should have his herd put right now. Those intending to exhibit at the next Provincial, to be held in Guelph, should give due heed to the rule requiring all Shorthorns to be recorded in the D. S. H. B. before they are entered for competition at the said exhibition.

# 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, 13c. 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—sooner, if possible. We do not hold ourselves responsible for the opinions of correspondents.

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

All communications to be addressed STOCK JOURNAL Co., 48 John street south, Hamilton, Ont.

HAMILTON, CANADA, MAY, 1886.

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

STAYING at home and attending closely to business is usually an excellent practice, but, like many other good things, it may be carried too far. Many a one well adapted by nature to be a most successful cattleman has lived and died in obscurity, because his ambition never felt the stimulus that is sure to follow when better animals are seen than those that we possess at home. There can be no denying what one sees with his own eyes, even by those who assume, through lack of better information, that the drawings furnished by periodicals are overdone. Yet there is a time for going abroad to see what one's neighbors possess, and that time is not the busy season. Those of our farmers' sons who have made such a pilgrimage should take it into account now, and by observing the utmost diligence the coming season, prepare the way by the return of another winter.

MANY persist in using a mongrel sire though convinced of the wisdom of trying to improve their herds. They buy a good specimen of a grade bull or of a cross-bred ram, and simply because they are good in themselves, without staying to inquire into the character of the ancestors. These men spend their labor for naught. They may make some improvement, but with expectations realized, others may be blighted, as there is a constant tendency to revert to former types in the offspring. Thus it is that after a life-time spent in this way the stud, the herd, and the flock are of that character in which the owner would feel no pride in showing to any one. How much simpler and wiser would it not be in every instance to use pure-bred sires, which, if chosen with ordinary care and judgment, would make the lot respectable, of whatever class they might be? It is surprising, indeed, that individuals, wise and discreet in other things, are so numerous found who persist in the adoption of a course that is so detrimental to their own best interests.

It is estimated that not more than *fifteen* per cent. of the agriculturists of the United States read a farm or stock paper. We feel quite sure that in our own Ontario the proportion is quite as large. We know it from the returns giving the number of our farmers, and from the combined circulation of our farm journals. It is true, however, that a goodly number of those who do not take a paper devoted exclusively to their own profession read a good deal on agriculture in the general newspaper. With all due allowance for this, we hold it is a stigma on the calling, that not one in seven of our "intelligent" farmers takes a paper treating of his own particular business. We need not so much wonder in such a case that men will persist in growing wheat in large quantities at 77 cts. per bushel, and in keeping scrub cattle that require four seasons to produce a very indifferent steer for the shambles.

In forming a herd or flock it is a very common practice to do so by purchasing young animals that have never bred. We are by no means sure of the wisdom of this, as a dam may not produce offspring equal to herself, owing, it may be, to some deficiency in the make-up of her immediate ancestors. In some instances young stock fail to breed at all. When they breed regularly and the character of the offspring is what it should be, this method is the most profitable; but oftentimes they do not so breed, in which case it had been better to have purchased dams that had already been tried. We have read of an instance of one of the best flocks of sheep in England having been built upon a foundation consisting of four-year-old ewes. The reason assigned by the flockmaster for taking this step was, that the best class of young ewes could not readily be secured. So it is oftentimes with cattle and other kinds of stock. The best of the young ones are most likely to be kept at home. One may not get so large an increase from animals that have been tried, but they will get what is exceedingly important, the right sort of a foundation upon which to build.

"As a general rule the farmer whose powers of observation are so limited that he cannot appreciate the superior advantages of improved stock over what he can pick up at random, will not see the importance of good care or understand in what good care consists, and very little satisfaction is likely to come to him from making live-stock the leading feature of the farm." These words were penned by the editor of the *Farmers' Gazette* (Dublin), and they enunciate a truth that is as old as stock-keeping. If they apply so well to the stockmen in the land where they were penned, where much of the stock that is fed is purchased, how much more will they apply to those who grow their own stock, as is usually the case here. We can understand how one always purchasing may in a manner be compelled to take inferior stock or do without in a time when it is dear, but no one is compelled by the law of necessity or by any other law, unless it is the law of a culpable inertia, to keep an inferior class of stock from year to year without trying to improve it. Such men certainly do not pay much regard to the "care" of their stock, but will usually measure their worth, not by their ability to put on flesh, but by their ability to keep out cold and live on scant fare. The writer in the *Gazette* attributes this indifference of the farmer to his own true interests to "limited powers of observation." In this he has but told a part of the truth, for a strong conservatism peculiar to his race evidently adds its influence, and there must be a strange dormancy of the perceptive and reasoning faculties as well. The strong

power of long practised habit is brought out very strikingly in witnessing a man who will stand half an hour in a sleet storm to get half a cent a bushel more on a load of peas in the town market, and yet every day of his life one-fourth of all the peas he feeds at home are wasted by giving them to inferior stock, and yet this illustration is but a type of hundreds and thousands of instances of similar infatuation. Very little satisfaction can be looked for from the keeping of an inferior class of stock and even less profit.

## Speculators.

In these latter days there is somewhat of a stigma associated in the mind with the use of the term speculators. Now there never has been an effect without a cause, at least when we speak of material things; and therefore there must be some reason for the prevailing sentiment that we have just expressed. Where shall we seek for this cause? A popular dictionary gives as a definition for the term speculator, "One who buys in expectation of a rise in price." Now in this there is nothing condemnable, providing no deception is used on the part of the buyer in his endeavor to get his goods cheaply. Whence, then, has that sombre soiling come that we see clinging to the garments of those men whom we term speculators? Has it not arisen from the abuse of power? From the definition of the term speculator that we have given, it is clear that the calling of the speculator is quite as legitimate as that of the manufacturer or the farmer. But when successful, he grows rich rapidly, an ordeal that few men can come through unscathed, and therefore the tendency to become grasping, and; it may be, positively dishonest. Speculators more than any other class cry, "It is naught, it is naught," but when they go their way they boast to their fellows as to the good bargain they have made:

There are, of course, many classes of speculators. The huxter is a speculator; so is the ordinary grain-buyer. The man whose sole business consists in importing live-stock and selling them again, and he who invests in lands for the purpose of retailing them at a more or less remote period. Now all this may be done in a way that is not only perfectly legitimate, but positively beneficial. The huxter oftentimes relieves the farmer of his load that on dull market days would have to be taken home again; the importer brings good stock into neighborhoods where otherwise they would not through long years find their way; and the speculator in land, though oftentimes he may have retarded settlement thereon, has oftener facilitated this work. We think we are safe in saying that any honest calling that extensively obtains has arisen through the necessity of circumstances, and that until the necessity which created it is removed, so long will it find men to practice it. The vast company of agents that are supported now in modern countries, and that costs these more to maintain than their armies and navies, has arisen as a natural consequence of the constitutional tardiness of most men to put off to the last possible moment, necessary investments, linked with the competitive spirit of this most restless age. If, then, we have speculators, it is because the world wants them, for we have shown that the calling is not essentially dishonest. Nay, it may be, and is attended with many positive advantages, as we have already hinted. When countries have been literally filled with the products of a bountiful harvest, speculators have bought the surplus, and at better prices than would otherwise have been given for it, as a majority are compelled to sell, let the price be what it will. These immense stores put upon the market in a time less productive, have tended to pre-

serve the balance of a happy equilibrium, which is always the best condition under which men may be placed. Again, the origin of many of our industries may be traced to this speculative spirit amongst men. We may instance the export trade in live-stock, and the import trade in nursery stocks, so that the term speculator is perhaps quite as often synonymous with that of benefactor, as it is with that of oppressor. Indeed, every merchant is in a sense a speculator, the difference in his mode of operating being one of *time* more than anything else, the ordinary speculator taking a larger period to turn over his goods, and to convert his investment into cash.

But it is of speculators in live-stock that we wish more particularly to write. The use of the term in this connection is surrounded with a haze through which most men can see but a little way. Come on, thou sun of right, and drive the mists away to their native wastes. The term speculator as applied to certain phases of stock keeping, seems to be the only prominent word in the vocabulary of some of our agricultural editors. If men import good cattle, either to sell them or to keep them, they "speculate." If they mend their defective herd-books, it is for "speculative purposes." If they test their dairy cattle with the view of elevating the standard per cow all round, they are "speculating." And if they breed superior cattle and sell them at good prices, they are "speculating." With those men, the only keepers of stock to which the term may not be applied derisively, are those who persist in keeping runty scrubs.

Now, who are our speculators in stock? Answer, ye men who take up a blunt chopping axe under the strange delusion that ye are using a pen; come back to the old definition. A speculator is "one who buys in expectation of a rise in price." A man, who only raises live-stock in part for the market, and buys the balance, can only be a speculator in part. He who improves his stock by way of testing, is not a speculator, and he who labors to secure a proper herd-book standard is not. It must be one who *buys*. How many men have we in Canada who live solely by buying stock and selling them again? We know of *one* and *only one*, and men have been pleased to speak of him as our "veteran importer." It has been said of this man, we think truthfully, that he has brought "more good stock into the country than any other man." To what extent our country is indebted to this man we are curious to know? How many of the 60,000 beefers that now annually cross the Atlantic from Ontario are descended from bulls imported from this man's importations forms an interesting question. We are sure it is very large, and yet men who never turned their finger for the improvement of our stock *stigmatize* this man as a speculator. We say it fearlessly, the work that he has done shall endure, and endlessly expand, while toadstool effusions that are continually emanating from the immense vacuums in those editor's skulls where brain is usually found, are buried in the cesspools of a past remembrance. Two hundred thousand men who keep cattle in Ontario and but one of them a speculator, and he, as we have already shown, one of her greatest benefactors.

Let us now look at the export speculators of live-stock. They give from two to three cents per pound live weight more to the farmer than he got before their trade began. This in a standard shipping beast which weighs 1,400 lbs., amounts from \$28 to \$42—in favor of the farmer—not a bad kind of speculation for the latter. Apply this to the 60,000 head sent over annually to Britain, and using the lesser advance as a multiplier, we have as a gain \$1,680,000 annually—not a bad sort of speculation for Ontario. What but

for the business of these men would the live-stock interest have been in Canada to-day? The demand creates the supply in anything good or ill, providing a sufficient equivalent is paid. It is this demand, then, for improved cattle that has created the supply. When shippers are out on the trail after improved stock, they as instinctively shun the trail of a scrub bull as men do ordinarily the habitations of the skunk, knowing full well that his offspring would pollute their cargo to the extent of destroying the sale. Where, then, are the stockmen in Ontario who deserve the epithet of speculator in its derisive sense? We have searched it over and over, and have failed to find one amongst the keepers of improved stock. We have heard of men who go about to sales, and buy up all the scrubby trash which they may find cheap to sell it again at an advance. They, it may be, are deserving of the epithet in the detractive sense, but not the other.

If importers of improved stock are speculators, we are only sorry that their number is not vastly multiplied, for on this our country's hope depends in these days of unremunerative grain-growing. Every man of them should get a place among the "thirty" if not among the "three." If the men who test their dairy cows with a view to the demonstration of the possibilities of the breeds are speculators, instead of an excess of them, there is a dearth, as their efforts cannot but result in rivetting the attention of farmers and dairymen upon the importance of a higher milk average. If breeders of pure-bred stock who succeed so well in their business that they bring in buyers from foreign countries, who, though they fetch large sums of yellow gold take it not away again, are speculators, we might well ask for a shower of these. Viewing their work through the lens of utility, it stands both hand and shoulders above that even of the manufacturer. Legislators might give place to those men, and with a good grace.

Let us hear no more, then, about live stock speculators of our country, till we have some of them. Sometime we may take up the subject of "booms" and write on the term "craze."

### Railway Responsibility.

At the last Wentworth assizes the case of Hurd vs. the G. T. R. was tried before Mr. Justice O'Connor, resulting in a verdict for the plaintiff; and as it is of interest to the farming community generally, we give a synopsis of the facts.

By mutual arrangement between the parties to the suit before trial, the damages were agreed upon at \$1,800, leaving the question to be decided by the jury, as to whether the railroad company was liable—in other words, had the employees exercised proper care to prevent the accident. It appeared from the evidence that Mr. H. H. Hurd, of this city, owns a farm on the Plains Road, about midway between Hamilton and Burlington, and is an extensive breeder of Clydesdale horses. The Toronto branch of the G. T. R. runs through this farm, and at about three-quarters of a mile east of the Waterdown station there is a level crossing without cattle-guards, used exclusively by Mr. Hurd. About 70 rods east of this crossing, on the adjoining farm is an open iron bridge 32 feet long, 14 feet wide and 15 feet high from the roadway: this is where the accident took place.

In the month of July last two of Mr. Hurd's men were removing a number of fillies from a field on the south side of the track to one on the north side. There were in all 16 well-bred Clydesdales, a number of which were imported. When they got on to the track they turned east instead of going straight over,

and while the men in charge were endeavoring to get them back, the morning freight train, which had been on the siding at Waterdown, came up, and finding them on the track, according to the evidence of Mr. Hurd's men and other eye-witnesses, came to a dead stop about half way between the level crossing and the bridge. The men succeeded in heading off the horses, and drove them back alongside of the track, until they were nearly abreast of the engine, when the driver whistled sharply and started up. This stampeded the horses; they again ran east, followed by the train, which again stopped close to the bridge, the horses in the meantime having attempted to cross, the result being that four of them fell over into the roadway below, three of which were killed, eleven were fast in the bridge, their legs being between the ties, and one only succeeded in crossing without being injured. The one that fell over without being killed and of the eleven which got fast in the bridge, five were badly injured, the others temporarily.

On the other hand, the train men stated in their evidence, that they only stopped once, that is, close to the bridge; and the driver stated that he was unable to stop sooner. But on cross-examination admitted that he was half a mile distant when he first saw the horses, and that he was only running about 3 or 4 miles an hour, and to use his own words, "thought he would take the chances." Having run for two or three years on this branch, he must have been familiar with the location of the bridge.

The learned judge, in charging the jury, drew attention to the fact, that while the plaintiff's horses had no right on the track, and were in fact trespassers (which was admitted by Mr. Hurd in his plea), that ordinary care should be exercised by the railway company's servants, and left it with the jury to decide this point. The jury were absent but a few minutes, and on their return rendered a verdict for the plaintiff for the amount previously agreed upon.

We look upon this decision as one of much importance. Farmers take it for granted too readily that in the matter of losses of this kind it is hopeless to fight railway companies; but Mr. Hurd's contention and success show that they are not omnipotent. The strong feature of the case is this—railway officials have no right to kill or injure *trespassing* animals at will; but on the other hand it is their duty to do all in their power to save them. Failing to do this, they are liable for damages.

### Amongst Our Friends.

"I am glad to be able to say the JOURNAL is not only a live-stock paper in name, but really a live paper in fame. I enjoy reading its pages."—J. N. Coldren, Iowa City, Ia.

"I wouldn't be without the JOURNAL for anything. It gives me much assistance in my new stock enterprise."—L. O. Lemieux, Brandon, Man.

"I am glad to say that I hear the JOURNAL very highly spoken of on all sides. I consider it the best paper published for the stockmen."—F. W. Hodson, Brooklin, Ont.

"I have taken your paper from its first start, and am highly pleased with it. Would like to see more taking it. The time will come when farmers will see that the whole of their success in farming depends upon their doing away with their scrub stock."—W. J. Elmer, Sharon.

"I think every farmer in the Dominion should read your excellent journal."—H. S. Green, East Bolton, Que.

"I like your paper well, and consider it the best farmer's paper ever published in Canada."—Robert Ness, Jr., Howick, P. Q.

"I think the JOURNAL well worth the money to every farmer. Its articles are excellent on everything connected with the farm. It is a pillar of instruction."—John McPherson, Waldemar, Ont.

## Improving the Stock on our Western Ranches.

BY GEO. E. ELLIOTT, WINNIPEG.

The cattle industry in the Far West is quite a new feature with us Canadians, and it is gratifying to note that some attention is being paid to the improvement of stock, whether cattle or horses. The word amongst our ranchers of the west now is, that the "scrub" must go. This is a healthy sign, and one which the cattle pessimist should bear in mind. The quality of the beef meat that you find on the hotel tables in Macleod and in Calgary is a satisfactory assurance that in the grazing districts of Alberta no finer beef can be raised anywhere. This is the testimony of those who have visited those districts and who have tested the quality of the beef which is found there.

Spanon's meat market in Calgary is one of the largest west of Chicago, and during the visit of the British Association to the Rockies in 1884, the beef in this establishment was inspected by a number of gentlemen, members of the association—Englishmen, who are admitted everywhere to be good judges of beef—and their verdict was very decided in favor of Alberta as a stock district, for the quality of the beef raised on the fine grazing lands in the vicinity of Calgary was hard to beat, unless better stock were introduced, and there is room for this because there have been too many "scrubs." Better blooded stock will produce finer beef, so that a great improvement can yet be made in the quality of the beef raised on the far west ranches, when this change is effected.

Ranching being a new industry in Canada, the quality of the stock was a matter of secondary consideration; so long as the animal was sound there was little attention paid to the breed. But this must pass away. Already eastern breeders are giving much attention to the improvement of ranch stock, and now that many of our ranchers are going into the exporting of beef, it has become of the utmost importance that no scrub stock is needed.

The same remark applies to horses. "What is the use," I asked a large cattle rancher one day, "of raising kiuses and bronchos that are neither trained nor civilized enough to behave themselves?" He replied that there was a good deal in that, but that "it didn't cost much to raise them, and for saddle work they could not be beaten." But the days of kiusing is rapidly passing.

True, the cowboy must still go "on the jump," on one of these brave little animals, but the settler and the small rancher need something more serviceable than a Montana mustang, so that the horse on the ranche, as well as the ruminants, must be improved.

Few people in the eastern Provinces are aware of the colossal proportions which the cattle industry is assuming on the grazing lands of Alberta and eastern Assiniboia. While our people have been scared about an Indian uprising that was purely a figment of modern journalism, the American cattlemen and stockmasters are quietly invading the territory at the head of their horned and woolly armies, and are locating their legions on the plains of the Bow and Belly rivers.

Last year sheep were introduced by the Cochrane Ranche Co., by Mr White, Mr Begg, and other ranchers, so that now there are in Alberta about 15,000 head of sheep, and these will be augmented by fresh importations as soon as the grass sprouts. Thus the people who would suffer the most if an Indian uprising were to take place, are those who fear the least; and as they know all about Indians, it is fair to assume that they have been laughing down their sleeves at our "tender feet," and at the "flying

columns" which our Government threatened to send up to overawe the saucy but not hostile Blackfeet.

The new comers are bringing with them improved stock, which is a commendable feature; and by next July, instead of the 100,000 head of cattle that a few weeks ago I was justified in expecting, there will be in Alberta district nearer double that number, if the Montana parties, who are now endeavoring to make arrangements with the Dominion Government, succeed in their negotiations. This will largely increase the field for our eastern breeders of pure-blooded stock, and they will no doubt avail themselves of this increase.

Undoubtedly the tendency in such a district as Macleod is for the large cattle ranches to absorb the smaller ones, as they are doing on the stock ranges in the United States. Our small ranches, and there are not a few on High River and Preter Creeks, will have to give way to the cattle kings whose flocks and herds will cover many a hillside, for it is an age of monopoly, and ranching is not an exception. The pursuit has lost its poetry. It has come down to hard pan and stern philosophy, but it is falling into the hands of those who can best afford to deal with it, for the world's competition is keen, and as I have remarked, the romance has been knocked out of the ranche, and it presents itself as one of those industries which will require special and more careful management in the future than was bestowed on it in the past.

## A Glimpse of the New Zealand Frozen Meat Trade.

BY C. F. H. MAJOR.

Men in every walk of life must always find it interesting to learn facts which bear upon their own professions; and when they happen to be facts of importance, exerting either a direct or an indirect influence upon those professions, it becomes a duty to learn and consider them.

A trade has lately been opened between London and New Zealand, which by the steadiness and even rapidity of its growth, is of great importance to the meat consumers of this country; and by the signs of permanent success which it already evinces, is of even greater importance to the meat producers of these islands and of the Dominion of Canada. Having lately had the pleasure of paying an interesting visit to the meat stores of a large firm, it struck me that Canadian agriculturists might like to accompany me in imagination over these immense refrigerators, and from what they see of this one branch of an already extensive and ever-increasing trade, to conjecture what influence the frozen meat trade is destined to have upon the importation of live-stock from Canada into this country.

The stores we intend to pass under review are those of Messrs. Nelson Bros., of London and Hawkes Bay, New Zealand, which are situated under the Cannon Street terminus of the Southeastern Railway. Entering the doorway and looking around, we are at once struck with the exceeding suitability of the spot selected by Messrs. Nelson for the object they have in hand. Down the whole length of the stores run two small tram car tracks for the conveyance of carcasses from the river to the chambers where they are stowed. On either side of this passage are arranged the chambers, 9 in number, holding from 1,500 to 3,000 carcasses each. The passage, 400 feet in length, with the river at one end, terminates at the other in a retail butcher's shop. Capt. Jones, the manager, most kindly volunteered every information, even to the explanation of the smallest details. On entering one of the chambers one is struck with the massive

appearance of the door, which is 9 inches thick. From murky gloom, the touch of a button causes the electric glow lamp to shed its intense cold light over the scene, and in an instant out of the darkness emerge row upon row of carcasses, which the extreme coldness of the atmosphere they inhabit has converted into veritable "stiffs." The suitability of the spot chosen now becomes apparent, the massive thickness of the brick walls dividing the vaults being in every way adapted to the conservation of the cold within. To insure the insulation of the chambers the brick walls have first been slabbed with  $\frac{1}{2}$  inch wood, then 3 inch battens have been placed on edge perpendicularly, and these covered with  $\frac{1}{2}$  inch boarding, and the space between filled in with charcoal. Brown paper forms the next layer, and another  $\frac{1}{2}$  inch boarding completes the wall. The layers of the floor are the same, with 5 inches of charcoal and 2 inch planking on the top. The ceiling contains 4 inches of charcoal. The door, 9 inches thick, is filled in with charcoal, having a wedge-like edge which closes very tightly with the wall. A square movable panel in the door enables carcasses to be taken out, and obviates the necessity of opening the door on every occasion. Overhead a large square pipe delivers the cold air into the chamber, and an exhaust pipe carries the warm or foul air away. The cold is intense, air being supplied at any temperature from freezing point to 80 below zero. Frost hangs from the ceiling and pipes, and the snow on being taken in the hand appears more like flour than snow.

After feeling the *shivery* atmosphere of two or three chambers, where nothing but rows of sheep, quarters of beef, and in a few instances frozen fish and fowl meet the eye, we are taken to see the machinery by which, without the aid of chemicals, these polar frosts are daily formed and utilized. Two Haslem patent dry air refrigerators of 60,000 cubic feet, and two sets of drying pipes and surface condensers are at present in use, and others are in course of erection. The process by which the air is brought to its low temperature is soon explained, and really only depends upon the fact that the latent heat in atmosphere can be taken out by the following simple process: Air is drawn into the machine and compressed, which makes it very hot, for the heat which was before spread over a large space is now confined in a small one. This compressed air is now driven through pipes over which cold water is constantly pouring, which reduces the air to its own temperature, and causes it, upon being expanded, to become very cold indeed, for it will easily be seen that the compressed air containing a very small amount of latent heat, must necessarily become colder as the space over which the heat has to spread becomes larger. The value of the Haslem refrigerating system is, that it produces a perfectly dry cold, which in meat preservation is of course of paramount importance. The water employed for cooling the air is the ordinary Thames water pumped up into a large reservoir holding 50,000 gallons, the water being drawn from the top, giving time for impurities to settle to the bottom.

Right against the steam engine is the snow-box, which the engineer opened for us, and taking out the thermometer showed us 80 degrees of frost, a shower of snow being emitted all around. The engines have to stop every 4 or 5 hours to allow the snow to be withdrawn. It was here that we were convinced of the ingenuity of the system, and could not help admiring that engineering skill which could show us a steam engine whose rapid motions were the result of intense heat, and beside it as the result of the engine's work, some 80 degrees of frost, with the

knowledge that 80° and 90° below zero can be attained, if necessary. It seemed, indeed, as if the engineer was trying to emulate the forces of Nature; and while we congratulate him on having succeeded in so good a cause, we can but thank the Giver of all good for allowing him the skill and ingenuity necessary for the preservation of the means of life, and for gradually unravelling the secrets of this power for our benefit, as the problems of civilization grow in magnitude and importance.

It was easy for people to laugh at the simple process by which Columbus made an egg stand on end, but none of them knew the way to do it till he had shown in his rude way the application of the principle of centre of gravity to an egg; and it may seem a simple process to us now that it is understood, how the engineer can produce polar frosts—it has long been known that the chemists could—but it is for us to admire rather than depreciate that observation, clear-headedness, and practical talent, which could perceive and draw, from a really obvious physical fact, the motive power of a great commercial industry. Truly, as we saw in the engine-room the two extremes of heat and cold brought so closely together, and for such a useful purpose, we were able to corroborate the *European Mail*, when it said that the "transit of fresh meat from the antipodes to England is entirely due to engineering genius, and well deserves to be reckoned as among the greatest triumphs of the age."

Mr. Alfred S. Haslem is the patentee of this refrigerating apparatus, and nearly two hundred of his machines are already at work in ocean steamships and different parts of the world. The results are more than satisfactory on board the ships, even when passing through the tropics, the meat having, when struck, a distinct metallic ring. Last summer a good proof of the retentive nature of the dry air refrigerating process was practically afforded by a shipment of carcasses which had been transferred to an insulated barge. After 24 hours half the carcasses were withdrawn, and yet, after 55 hours, the half-laden barge showed three degrees of frost. All the meat-barges hold about 900 carcasses, and are carefully insulated. Though Nelson Bros. have only insulated nine chambers as yet, they have ample room for many thousand more carcasses, and will doubtless soon require increased space. A small dynamo engine keeps about 20 glow lamps going, and nullifies any tendency to impurity of atmosphere which might result from gas or lamps. The total importation of frozen meat into the country last year was 777,891 carcasses, being an increase of 145,000 carcasses over the preceding year, of which New Zealand alone gained 79,920 carcasses. Messrs. Nelson received out of the last steamship 11,410 carcasses of mutton, averaging some 65 lbs. apiece, 523 legs, at some 8 lbs. apiece; 225 haunches, at 24 lbs. apiece; 74 quarters of beef at 200 lbs. apiece, and some 56 cases containing 2520 dozen kidneys, which fetch 48 cents a dozen; mutton brings 18 cents per lb. The meat appears to give satisfaction to the consumers, though an occasional joint may be not quite *the thing*; but all the Australian meat we have tried has been most excellent.

The freight charges from New Zealand to London are 3 cents per lb., but they have been higher, and it seems indeed wonderful that meat coming from a distance which necessitates a 47 days' voyage, and such extreme care for its preservation, should be able to sell in this country at a profit. Truly producers in this country are heavily handicapped when produce from the other side of the globe can be brought over into competition with home-grown produce, and the

problem before the agriculturists of this country of what it will best pay them to grow, is not one easy of solution, while it is of too stern and practical a nature to be solved by mere theoretical speculations. It makes one's heart grow sad indeed to hear of so many thousands of acres in this grand old country lying idle and unused.

Having had an insight into the nature and present dimensions of this wonderfully developed trade, Canadian agriculturists will be able to form some idea as to how its continued success will effect their own exportation trade, and with the market so much nearer, and abundant facilities for meat-production, it should not be impossible for Canadian stockmen of skill and enterprise to hold their own against all competitors.

### Our Scotch Letter.

A CRISIS IN SCOTCH AGRICULTURE.

Agricultural depression in Scotland, which has been a subject of frequent conversation and discussion for the past ten years, has at length come to what, without any exaggeration of language, may be called a climax. The energies of farmers are completely paralyzed. They find, in a word, that their occupation is gone, and that in the meantime they cannot turn their hand to anything which will yield them a profit. How long this state of matters is to last it were hard to guess, but certain it is that the pecuniary resources of Scotch agriculturists will not long be able to sustain the strain; and unless relief comes soon the results will be most disastrous. The causes which have led to the unenviable position of farmers in this country are, first, a marked decrease which has been noticed for a good many years past, in the bulk and quality of the crops, attributable, in great measure, to climatic conditions; and, secondly, to a general reduction in price of all kinds of farm produce, but more particularly in the price of dead meat. Taken altogether, prices for what is grown upon a farm are lower than they have been for a quarter of a century, while since that time the cost of production has increased greatly. Before the foreign market was tapped to supply the masses in this country with everything, the British farmer could grow them. The occupation of the agriculturist was of all others the most popular, and men from every rank and trade who had the necessary amount of capital, though they often wanted the necessary knowledge, intelligence and training, for the successful pursuit of agriculture, competed for vacant farms. Exorbitant rents were then offered and accepted, and land thereby obtained a fictitious value. The practical farmer was forced often to pay more for his farm than it was worth, to prevent himself being driven from the home of his forefathers, as landlords generally scrupled not to take advantage of the rivalry that existed. In Scotland it need hardly be mentioned the land is for the most part hired out to the farmer under leases which are binding for the term of nineteen years, a system to which has to be attributed much of the distress at present prevailing and which is now almost universally condemned. These leases not only conditioned that a certain sum annually was to be paid for the farm, but they contained a number of arbitrary and antiquated rules for the guidance of the tenant in the management of his business, rules that, where strictly enforced, as they often were, had the reverse of a good effect upon Scotch agriculture. Where leases were entered upon shortly antecedent to the time when foreign imports were poured into the British markets to the amazement of our farmers, it has been a hard struggle with many to keep their heads above water; not a few, indeed,

have been ruined, and many more have been cruelly crippled in their financial resources.

It is only now, when circumstances are specially trying, that the disastrous effects of recent years are coming to the surface and are seen. There is a universal demand for a reduction of rent which cannot justly be withheld, though a few proprietors prefer to stick to their bond. These are, I am glad to say, the exception, and many proprietors are setting a noble example of forbearance, remitting from ten, twenty, thirty, and even fifty per cent of their rents, and some have granted revaluations, which is perhaps the best plan of meeting the difficulties of the case. Temporary reductions but put off the day of evil a little longer; farmers require to get a new start under conditions suited to changed circumstances.

The difficulties which perplex farmers here have been accentuated the past year by a very deficient grain crop, which in the highlands of Aberdeenshire and Banffshire have been much damaged by frost; so much spoiled, indeed, as to be useless for seed, and of very little value as food. It is stated that in these districts a good deal of the grain has had to be sold at about 10s. a quarter, a figure which would not pay the cost of production, not to speak of rent. Beef also has been abnormally cheap, 67s. per cwt. being a fair average meantime for very good quality. A few years ago it was selling at above 80s. This makes a great difference to farmers in a district where cattle feeding is their mainstay—in such a district as Aberdeenshire, for example, for on an average size of a holding it would represent a loss of about £200 a year. When you consider, also, that in many cases there is not more than one quarter of oats for two there would be in good seasons; that they are not worth more than 20s., and that barley and wheat are enormously reduced in price, you will realize the desperate condition of agriculture in these parts. Great uncertainty prevails as to the future; and, as I have already hinted, leases, at least long leases, are at a discount. None is so blindly foolish as to tie his hands for the next nineteen years, as many have done in the past, and where leases are now entered upon there are "breaks" every fifth year, sometimes oftener, when either party can give notice that he is to be no longer bound by the contract. This is a necessary safeguard in these times of depression and sudden changes. Where farms are being relet the reduction in the rent, as compared with what it would have been some ten years ago, is from 20 to 35 per cent.

QUIDAM.

### Morgan Horses.

BY JOHN DIMON.

(Sixth Paper.)

The report of State Fairs at the North, South and West show that wherever exhibited the Morgans take the highest rank for horses for general use. At the Kentucky State Fair at Florence in 1855, in the ring of stallions for harness purposes, four years old and upwards, the blue ribbon (highest premium) had been tied on a dapple grey, when at that very moment a champion Black Hawk (a Morgan) was brought in, and the multitude immediately shouted, "Take it off! take it off!" It was accordingly taken off and put on Black Hawk, and no judgment of the committee was more heartily approved by the spectators than this.

So, also, when Hale's Green Mountain Morgan appeared on the show grounds, at Louisville, Kentucky, 1853, he met with a cordial welcome, and was greeted on entering the exhibition ring with such eager applause as told full plainly that his form and style

of action, though new, were appreciated by the thousands of strangers before whom he was moving. Of course he received the first premium, which he had won the same season at the Michigan State Fair at Detroit and the Ohio State Fair at Dayton.

As to the success of this breed of horses in the trotting circuit, we find by the records that no less than 100 Morgan stallions have sired trotters with well earned records of 2.30 or less, and that such Morgan trotters number fully 200. We could name these 100 trotting sires and also their trotting sons and daughters. Would cheerfully do so, but for the room it would occupy in your valuable JOURNAL. In addition to this formidable array of fast ones, we find not less than 12 sires of fast trotters (standard) with records of 2.30 or less, that have Morgan mares for their dams. We have already mentioned their peculiar adaptability for stage teams, but would like to give the statement of an "old stager" by the name of Milo June, who, by-the-way, was considered one of the best judges of horses of his day. When asked to give his views respecting the Morgans as staggers he said, "I have spent the greater portion of my life in staging, formerly in Vermont, now in Missouri. I take pleasure in bearing testimony to the decided superiority of the Morgan horses for coach service, over any others that I have ever used. I have bought many horses, in Ohio, Indiana, Illinois, Kentucky and Missouri, and though an occasionally good roadster may be found, they are not common. Many of the horses of these States have fine forms and good carriage, yet lack the high, free spirit, unflinching courage and iron constitution the Vermont Morgans so generally possess. Very many of the western horses are too large. Large horses may be the best for draft, but I have always found horses of medium size weighing, say 1,000 or 1,050 lbs., the most serviceable and enduring by far, when used before a coach."

In connection with this subject I can but give you a copy of a letter from a man well known both east and west as being one of the most successful stage owners in our country, and the great fortune which he secured by his own exertions sufficiently attest his practical wisdom and the soundness of his judgment. His large experience at the west gives peculiar value to his opinion with regard to horses adapted to that country. The letter from which we quote was written to D. C. Linsley, Esq., and dated Chicago, April 21st, 1856. He says: "Being a Vermonter, I have known Morgan horses as long as I have known any. I have resided in Chicago the last 17 years, during which time I have been largely engaged in the business of staging, which business affords constant employment for about 1,500 horses, and have thus had opportunities for observing and testing the capacity and endurance of horses. I have no hesitation in saying I consider the Morgan horses far superior to any other breed or blood I have ever known, for the road or farm. In fact I would prefer them over all others for any kind of service on the American continent. They are invariably good feeders, are easily kept, and will not only perform and do more service in a year, but will give more years of service than any other breed of horses I have ever known. Of the horses hitherto raised in the western States, and particularly west of the lakes (although much improved within a few years, and many fine horses may now be found among them), it is undeniably true that a Morgan horse from New England will outlast two horses raised in the west. It is also true that but few Morgan horses have as yet been brought from New England west of the lakes, and generally true that their services are very generally sought by intelligent breed-

ers throughout the country. Any number of inferior horses may be found in the west which are claimed to be of Morgan blood. This attempt to palm off counterfeits is the highest evidence of the value of the genuine blood. The ready and general objection in the west with those who are not familiar with the Morgans, is want of size, forgetting that their size should be judged by their weight and not by the length of their legs, and that the same bodies, upon large legs, would look much larger." Signed "M. O. Walker."

I could continue to adduce testimony of a similar character to almost any extent. In my next I may present their claims as war horses.

Windsor, Ont., April 8, 1886.

(To be continued)

### Our Nova Scotia Letter.

THE SHORTHORN HERD BOOK QUESTION—IMPROVEMENT IN AGRICULTURE.

The question of elevating the standard of the Nova Scotian herd book was raised about the beginning of the present year by one of the breeders in the Province.

In the abstract such a proposal would commend itself to the judgment of all breeders, who desire to see the business of the breeder placed upon an enduring foundation. It would also deserve favorable consideration from those who desire to see the use of pure-bred males more general than it now is; and who can estimate the great advantage in prepotency which belongs to the animal with a good pedigree. However, there are some interests which should be considered before a proper decision can be reached in the matter. In the first place there are a number of herds which have been formed and grown up under the standard of our present herd book, in which their owners have invested a large amount of money, time and care. These represent an interest which should not be too cavalierly dealt with. The owners of these herds commenced at an early day when there was very little to encourage, and have fought through the hardest years discouraging indifference on the part of the class in whose interest they were working. Hence these pioneers deserve every consideration.

But at the same time it would not be in the interests of the breeders themselves to remain uninterested in the great work of gradually raising the standard of breeding until it may stand as high here in Nova Scotia as in any part of the world.

In any business whatever, success must be sought at the top, where only it can be fully realized; and it would indeed be a foolish enterprise on the part of breeders to go on investing money in a class of animals which were not the very best attainable.

In Nova Scotia, with its magnificent grazing grounds, rich meadows and healthy maritime situation, affording a climate very similar to the native home of the Shorthorn, on the shores of the German ocean, we may expect to see this magnificent race of cattle maintain a degree of excellence as great as they show in any part of the world. And in consequence we should hope to see our breeders carefully examining the pedigree of their animals, and disposing of all that are at all inferior, and as rapidly as possible replacing them with those that are of faultless purity of breeding. Without this course it would not be of much profit to us, even to achieve great success in breeding and feeding, as our cattle would be excluded from the markets of all the countries in which the transactions in pure-bred stock are of importance. No matter how well we may succeed in developing the high qualities of the Shorthorn we could find no market in Great Britain, Canada or the United States,

for in all these countries it is fully decided that nothing which does not trace back to the original herds of the founders of the breed can be admitted to registration.

Under these circumstances, then, it seems clear that the proper course is to make no change which will effect the property of those who have invested in our present herds of Shorthorns; and at the same time to make as rapid progress as possible in substituting for any animals of defective pedigree those which are of pure lineage. The present herds are, in respect of many animals, of satisfactory purity of blood, and the animals which are defective, are still of great value to improve the herds of native cattle, with which our farms are for the most part stocked. Fortunately, just at this time, the action of the associations in Ontario has opened a course by which we may continue our present herd book, and at once enter upon the course of bringing our herds into line with the rest of the continent.

The rival herd books of Canada having been united in the Dominion Shorthorn Herd Book, it is to be hoped that all Nova Scotian breeders will at once avail themselves of its record, and will register therein all animals which are eligible, while the N. H. B. can be retained for the use of those who wish to use the blood of the Shorthorn without aiming at making a business of breeding and selling these cattle, and to whom animals of four or more crosses possess a practical value.

Even to those who may be called purists in this matter, and who would be disposed to insist that the proper course to be followed is to get back to the right track, that is, to absolute purity of blood at once, this proposal must surely commend itself, if it be fairly considered. The action of one or two breeders will determine that of the others, and there can be no doubt but that in a few years all those who aim at any prominence will have no animal in their possession below the standard of the Dominion herd book. In the registration of Jerseys we can find an analogous situation, as the several Provinces have their own herd books, while all higher class animals are in the American Jersey Cattle Club Register.

No inconvenience results from this; but on the other hand, while it inflicts no injury on owners of cattle registered in the Provincial herd books, it does confer a great advantage on all those who hold the higher class stock, by opening to them the finest markets on this continent. At present, then, it would seem entirely unnecessary to go to the trouble and expense of establishing a new herd book for Nova Scotia, to the injury of those owning cattle now registered in the N. S. H. B.

And furthermore, it would seem that even if this trouble were undertaken, it would be almost for naught, as certainly all who could do so would in preference resort to the Dominion herd book.

In a very short time we hope it may be possible for some of our breeders to go more fully into the work of importation and to draw supplies of breeding animals direct from those herds which have supplied the best blood to all the world. During the last four months this Province has gained some good specimens of stock, which has hitherto been wanting. In cattle some purchases have been made in Galloways and Herefords, which were imported, and being shipwrecked, were sold in Halifax. At same time a number of Shropshires of very good quality were secured. Nova Scotia now has representatives of nearly all the breeds of British cattle except the West Highland and Kerry. At present arrangements are being made for an importation of Polled Norfolk, and it is likely that

the present summer will see a small herd of that valuable breed established.

The cause of technical education is favored in the Professor who has been engaged under the Provincial Legislature of last year, as he is proving both well qualified and enthusiastic; and with these qualities he will doubtless secure such favor for the institution that it will be shortly extended. Without being so ambitious as to aim at the foundation of a school like that at Guelph, we do hope to succeed in establishing a well-equipped experimental station, and associated in labor with it an association of farmers who will aid in experiments, and will at an early day form the nucleus of a body which will give support and countenance to every effort at improvement. At present the Province has in active operation a Fruit Growers' Association and a Dairyman's Association, and to these will soon be added similar associations.

There is a great increase of interest in the agricultural department of our Provincial business. Men are beginning to realize that Nova Scotia owes more to farming than even to minerals or fisheries, and with increased respect for the agricultural capabilities of the Province, are acquiring increased interest in their development. It may be some time before our flocks and herds will rival those of Ontario, but we now begin to feel that our situation affords some advantages, and we are beginning to take the necessary action to profit by these. If once the young men of the Province can be persuaded that their welfare is better insured by giving to their own country the benefit of their skilled and intelligent labor, which they have so lavishly expended abroad, the first and greatest step will have been taken. This can only be done by shewing them the example of prosperous and well-rewarded industry upon the farms of Nova Scotia. In this good work all may participate, and none more than those who persuade the farmers to be satisfied with nothing short of the best breeds of farm animals.

The farmer of the old school holds one particular heresy which is hard to eradicate. He says that he cannot afford to keep the improved cattle. No more mistaken belief ever prevailed. The truth is, that no man can afford to keep the scrubs, for while he may eke out a bare living with them, they most undoubtedly keep him poor.

M. R. L.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### The Ill-Treatment of Hogs.

BY B. GOTT, ARKONA.

It has frequently become a matter of great astonishment to us to witness the conduct of the ordinary nominal farmer with his hogs in their main feature of management. In the summer time they seem to get along very well, and all moves off very nicely without scarcely any trouble whatever. The farmer's object is then mainly to give to his hogs their greatest possible liberty and freedom of purpose. They are allowed to roam over the fields, and especially the roads, and as far as they please, and to get their living the easiest way to the farmer they possibly can.

In the autumn a pen is built, and in the quickest and roughest possible manner. Usually some rails are placed on the fertile earth four square, and sometimes larger, according to the number on hand to be imprisoned, against a building or in a fence corner near the barn or contiguous to the house, for mere convenience sake.

#### PUTTING UP THE HOGS

soon follows, and is usually a time of some considerable squeal and excitement, shared in by the farmer and his boys, above all, "old Rover," the faithful assistant and watch. In their exposure to the varied weather and the fall rains on this soft dirt, these noisy brutes soon turn the whole aspect of things into one of the most disgusting and

#### FILTHY STENCH HOLES

that can well easily be imagined. Their daily food is thrown into them sometimes in a trough and sometimes on the bare ground, to be mixed with the fertile mud, and their continual rooting, combined with the rains of the season, associated with the natural filthiness of the animals, have well succeeded in producing the most perfect mud mass and sink hole, and a corrupter of the atmosphere and the public health. It sometimes happens that the farmer and his family

#### FALL A PREY

to this before he gets the pork. Only this fall I myself saw in my observations amongst my neighbors, their hogs as soon as they left their nests obliged to wade up to their bellies in liquid filth and mire, producing the most disgusting and offensive stenches, filling the barn-yard. Sometimes the poor brutes have almost to bed in this mass of mud. These places extensively produced over any country are no doubt the great fever breeders,

#### THE INFECTIOUS DISEASE HATCHERS,

and the health and life destroyers of the neighborhood. If, as some farmers maintain, hogs fatten better in their dirt, which teaching we by no means believe, yet we cannot understand how such proceedings should be allowed to contaminate and infect a neighborhood, merely for personal profit. If farmers and others will stand so much in their own light in this matter, and against the well being of others, why the town must undertake to instruct them in the question of public health and their own real advantages. How shall these abuses be rectified?

The very men for which I write

#### WILL NOT BE BENEFITED

by my writing. They are very generally men who either do not read such instructive and informing daily or weekly journals as are provided for us, or they are men who little heed what they read, and learn little by their observation. The groundwork must be laid in better education and more intelligent understanding of these matters amongst the people. Public opinion must be more outspoken and determined with respect to these as well as other practices.

The subject should also receive much more frequent and reiterated ventilation through the public press, and especially the recognized agricultural journals and magazines. This will assuredly do much to alleviate existing evils, but still much will remain to be done.

#### HEALTH COMMITTEES

and health officers might profitably be organized and equipped and fully empowered to look into these as well as other matters connected with the public health. If people will keep these animals merely for their own individual profit, they should most certainly be compelled to keep them with as little injury to the public tastes and the public health as possible.

### The Oaklands Herd of Jerseys.

Persons who can only look at cattle through the medium of beef spectacles do not find much to admire in the little Jersey. They are disposed to laugh at her form, slim almost to delicacy, and that prominence of bone that is lacking in the beef breeds which more selfishly put upon their backs what the Jersey generously gives up for the common good of the race. While the beef breeds give barely enough, as a rule, to keep their calves in a contented mood, the overplus of Jersey milk—better than all the soothing syrup in the world—feeds children to the full, thus bringing sleep to the heavy eyelids of many a worn mother. We heard an American gentleman say once at one of our Western Dairy-men's conventions,—"we think it was the Hon. Harris Lewis—"Thank God for the gift of the old dash churn;" but when we think of the extraordinary richness of the Jersey milk, we might rather say, thank God for the gift of the Jersey cow, which gives us so much to put in the churn.

The little island of Jersey is only a few miles square, and yet it is fast filling the stanchions of many lands with the deer-like forms of its fascinating race of cows, the popularity of which is increasing rather

than waning, a fact which cannot possibly be accomplished by bolstering alone. Any breed, through the medium of capital and by free advertising, may be popularized for a time, but true merit in cattle, as in men, alone can endure; and judging the Jerseys by this test, they certainly compare well with any of the bovine breeds of to-day. Money may bring a breed rapidly before the notice of the people, but it will not draw from the udders of the cows fourteen pounds of butter per week, which is the amount fixed upon as the standard for the Jersey cow.

It is very singular how the centres of trade and commerce shift with the ever changing necessities of men, either in their totality or in the matter of special lines of production. The old cities of Tyre and Sidon on the sea long ago gave place to Antioch on the Orontes, and the latter in turn to Beyrut, on the same old middle sea. So the centre of the manufacture of the best farm implements in use has a good while ago shifted from the east to the west side of the Atlantic. Thus, too, it is with live-stock: there is a shifting of location as regards the centres of circumference. The greatest centre in America to-day for Cruikshank cattle is in the neighborhood of Balsam, in the county of Ontario; the very choicest of the fancy Bates strains now flourish at Bow Park, and the wonderful little island of Jersey, with all the Jersey renown, which it has sent abroad in the past, has not one individual herd that will equal the Oaklands herd of Jerseys, now owned by our townsman, Valancey E. Fuller, and located at Oaklands, some five miles to the eastward of the city, on the shores of Burlington Bay.

The Oaklands herd began as recently as the month of November, 1881, when two cows were purchased, which are still in the herd, Faith of Oaklands and Oaklands Cora, both of which have become rather notorious for their great butter making qualities. They were imported from England by Mr. Simon Beattie, and bought by Mr. Fuller at a public sale at Markham. Shortly afterward the herd was added to by the purchase of Matchless of St. Lambert, a pure St. Lambert cow of the now celebrated Stoke-Pogis 3d Victor Hugo strain of blood (called the "St. Lambert" strain for brevity's sake), and a heifer named Rioter's Ruth, of the same family, and Oakland's Nora, also a pure St. Lambert heifer.

Early in the year 1882 the herd was again added to by the purchase of two daughters and a son of Stoke Pogis 3d, the sire of Mary Anne of St. Lambert, without a doubt the most noted living Jersey cow in the world, if indeed she is not the best known cow to-day of any breed upon the face of the whole earth. These two heifers purchased from Mr. Stephens were not then in milk, but shortly afterwards, when they came in milk, gave 30 and 32 lbs. respectively when barely two years old.

Mr. Fuller then made arrangements to purchase largely on the Island of Jersey, and sent instructions to have some of the best cows secured for him. He imported some ten or twelve head at that time, including Victory, which was then believed to be one of the best cows on the island. She is still in the herd, and is well known in Canada as a great prize taker.

In the spring of the same year—1882—the proprietor of the Oaklands herd, with his characteristic energy, visited the most important Jersey herds in the United States, and purchased some fifteen head, including the cow Bertha Morgan, for which \$2,500 were paid, subsequently sold by him for \$4,000, although 12 years old, also Rose of Eden, since notorious as the champion prize cow of the world for milk, cheese and butter combined; cows of the Bertha Mor-

gan strain, and several other strains then considered fashionable. The herd at this time numbered some 35 head.

The St. Lambert blood at that time was not at all in demand, as in those days Jersey breeding was directed towards obtaining an animal with a very perfect head, delicate form, slender limbs. Too little regard was paid to the equally, if not more important essentials of constitution, udder, milking qualities and richness of the milk or butter; and the St. Lambert strain all being business cows in every sense of the word, viz., large in the body and deep, with strong constitutions and large udders, deep milkers, and withal cows that will stand hardship, were then considered coarse.

In the summer of 1882 Mr. Fuller, in visiting the fairs, was much taken with Mary Anne of St. Lambert, and endeavored to buy her, but all efforts to do so failed until April of 1883, when at last he succeeded in securing her. In the meantime he had added to his herd by a second importation, and by sundry purchases in the United States; but the more he tested his cows, the more he was impressed with the milk and butter giving qualities of the St. Lambert strain as superior to all others. Mary Anne early gave indications of her after renown. After Mary Anne had calved and before she had come to her full milk, before she had been fed any grain, and when barely three years old, one day's milk was set apart, and made within a fraction of an ounce of 3 pounds of butter. Mr. Fuller then tested one or two milkings of each cow for butter, and soon discovered that as a rule the St. Lambert family outstripped others in the production of butter. He again tested Mary Anne of St. Lambert later on, and finding she far exceeded her previous yield, he decided upon purchasing as many of the blood as he could get, with the result that to day the herd embraces about 40 head of pure St. Lambert cows, some 12 of them being sired by Stoke Pogis 3rd, and nearly all of them of the same line of breeding as Mary Anne of St. Lambert. This is the largest collection of pure St. Lambert blood of any herd in the world.

At the head of the herd stand two bulls of this breeding, Canada's John Bull, the dam of which has a butter test of 24 lbs. 14 oz., in seven days without forcing, and which has given as high as 48 lbs. of milk when fresh, per day. This bull, the engraving of which appears on the first page of this paper is more closely related in the identical lines of breeding to Mary Anne of St. Lambert, possessing 96 $\frac{3}{4}$  per cent. of the same blood as Mary Anne, and is more inbred to Stoke Pogis 3rd than any bull in service, having 62 $\frac{1}{2}$  per cent. of his blood through three crosses. He may indeed be styled an inbred Stoke Pogis 3rd bull.

The herd has been from time to time enlarged by importations from the Island of Jersey, purchases in the United States, and purchases in Canada, till now it numbers about 200 head of pure Jerseys, registered, or entitled to registry in the American Jersey Cattle Club. Of these there are about 110 cows and heifers in milk, some 30 yearlings in calf and the balance is composed of young bulls and heifer calves.

The record of this herd in recent sale rings has been very remarkable. In the spring of 1883, Mr. Fuller sent to the New York sale, Nymph of St. Lambert, the dam of Canada's John Bull, and she was sold for \$725 by public sale, showing the esteem in which even then this Stoke Pogis cow was held. Subsequent to the development by Mr. Fuller of this strain of blood the cow was sold at public auction in New York, at what is known as an "off sale" back to Mr. Fuller for \$1,500, and since then an offer of \$5,000 has been made for her.

At the fall sale of 1883, three yearlings were sold by public auction in New York for \$3,000.00, \$2,400.00, and \$2,000.00, respectively; and in May, 1884 at the great combination sale of Jerseys held by Peter C. Kellogg, where the best herds in the United States were represented, Mr. Fuller sold from his herd in less than an hour 11 head, including calves, for the enormous sum of \$23,250.00, making an average of \$2,113.63 per head. At every sale there is a cup competed for, that is awarded to the one who makes the highest average on five of his own consignment, whether bred by himself or not; and another for the one making the highest average on five animals bred by himself. Mr. Fuller did not enter as a competitor for the latter prize, but obtained the cup for the highest average for the contributors, on five head, making an average of \$3,350.00, all of the St. Lambert family; his being the highest average ever made by any Jersey breeder at any public sale. Amongst the five head which won the contributor's cup were Baron of St. Lambert, which sold for \$4,400.00, Honey-moon of St. Lambert, \$4,100.00; Cowslip of St. Lambert, \$3,600.00 and Bijou of St. Lambert, \$3,000.00.

In the spring sale of 1885, although Mr. Fuller did not enter as a competitor in the class for the cup awarded to breeders, until he reached New York, he obtained on five yearlings bred by himself this cup, thus surpassing all others at this sale upon five animals bred by the party selling them.

The sales made from this unique herd from the 20th of October, 1883, to the 31st of December, 1884, aggregated the enormous sum of \$95,825.00; the average price per head, including calves, being \$1,796.02, and the average price procured for animals of the Stoke Pogis Victor Hugo line of breeding—14 matured animals, \$37,300.00, or an average of \$2,663.57 per head, and for 21 heifers not in milk, heifer and bull calves, \$30,225.00, or an average of \$1,431.19 each. Where is the beef breed champion who can show such a record in recent days?

Although all classes of the stock industry have been materially depressed during the past year, the average of Mr. Fuller's sales of young bull calves and heifers was very close to \$750.00 each; and of these the average age does not exceed nine months, aggregating \$40,000.00, and we are informed that the demand still keeps up. The difference in the average between 1884-1885, is, we believe, largely owing to the fact that there were but few matured animals sold during the past year.

Of course it must not be taken for granted that the average prices of Jerseys is anything like these figures, as in the United States they do not run at more than \$200.00 to \$250.00 as a rule. The magnificent prices obtained for the Jerseys of this herd are due to the superior merit and fashionable breeding of the individuals composing it, and it may be in some measure to the notoriety which its indefatigable owner has wrenched from a skeptical and unwilling public. And we may here state that for some time we were in the ranks of that unwilling company ourselves till we examined with the utmost care and removed from our mind every doubt regarding the integrity of the wonderful St. Lambert butter test.

Last fall Mr. Fuller imported largely from the Island of Jersey, animals which are not of so fashionable breeding, but of good individuality, and these he disposes of at \$300.00 and upwards, putting them in calf, as a rule, to one of his Stoke Pogis Victor Hugo bulls, whereby breeders are able to obtain the blood from the calf the dam is carrying at the time of sale.

Bull calves from this herd, according to their breed-

ing, sell from \$100.00, \$300.00, \$500.00 and in one case brought as high as \$12,500.00.

The average milk record of the Oaklands Herd for the year 1884 was 6,382 pounds per head, including two-year-old heifers. An accurate record is kept of every milking of each cow each day. No average is given for 1885 as a great many cows which were purchased in that year were in quarantine and were almost dry by the time they were brought to Oaklands.

The average milking properties of the Stoke Pogis 3rd Victor Hugo cows of the herd, numbering about 30, would be 38 to 45 lbs. per day, and some of them have milked 60 to 67 lbs. daily. There are in the herd 25 cows which have tested over fourteen pounds in seven days, and their average is 18 lbs., 15 $\frac{1}{2}$  oz. Nine of these are over 20 lbs. each, one over 25 lbs., one over 30 lbs., and one 36 lbs., 12 $\frac{3}{4}$  ozs. More official tests have been conducted in this herd than in any Jersey herd in the world.

But few of the other cows have been tested, save for one or two milkings, yet there are but few in the herd that will not make 14 lbs of butter per week. Apart from those now remaining, there are 9 cows which have been in the herd and which were tested and have since been sold, averaging 17 lbs. 15 $\frac{1}{2}$  ozs.

We have thus briefly given the facts of the rise and progress of this most wonderful herd, which belongs entirely to this ninth decade of nineteenth century life. As we survey what we have penned we are amazed at the feat accomplished by our townsman since 1881. Had Mr. Fuller been a cattleman from his youth, there would not be so much room for wonderment; but he was not. Although born on a farm, and having spent the first fifteen years of his life upon the same, he belonged to the city and did not need to keep cattle. He, however, inherited his love of stock from his father, the late Bishop Fuller, who in his life time took the keenest interest in this herd. Had his success been realized in the island home of the Jerseys, where we would naturally look for perfection in this breed, it had not been so wonderful, but in this country of "seven months of snow and five of mosquitos," according to that unfortunate Englishman of Turnbridge, and here in the county of Wentworth, in no way hitherto distinguished for cattle, and within five miles of our office window, it is very wonderful indeed! We read that in olden time "giants lived," but in the contemplation of Mr. Fuller's success, we cannot believe that the giants all lived in antediluvian days. But this success is not accidental. Success seldom is. Mr. Fuller has worked for it, and because he has succeeded we would say to his brethren in the race what the poet says in the Lord of the Isles, "O grudge him not the victory," for it has been earned.

Mr. Fuller had the courage to depart from the fashionable form of Jersey breeding, already referred to, and to mark out one for himself, and from actual demonstration of the accuracy of his judgment in this departure, he has changed the fashion from entire "beauty" to "beauty and utility." His ideal Jersey must have a good constitution, a large, well-formed and developed udder, be large and square in front, possess good teats well placed, deep milking qualities and indications of richness. And all those he purchased have been measured by this ideal.

He tells us that with him beauty has never had much weight, and that he rarely buys a cow without having personally or through an agent seen her milked, and having her milk set to ascertain the percentage of cream she gives. While he is careful about pedigree, he is particularly anxious to see lots of it in the milk-pail and the cream-can. He has always looked to the

milk veins and milk holes as indicators, not infallible, yet good signs; to looseness in bone defined open ribbing and loose jointed, and having, if possible, a vulva vein. He has tried to get cows that are good feeders, and to keep them in a good thriving condition. They are regularly milked, and gently and kindly treated in every sense of the term. Cleanliness and order prevail at the Oaklands; the cows are tested by system, and those which will not come up to the milk standard and the ideal in other respects which it is desired to maintain and perpetuate there are at once discarded.

A good deal of attention has been given from the first to the mating of the animals. That general principle so satisfactory in all breeding, of having a female weak in one point served by a male strong in another has been practiced with much success. And Mr. Fuller's experience has fully justified his preconceived opinion, that butter inheritance and deep milking strains are fixed, and can be transmitted through certain lines of blood, providing that the introduction of ungenial elements is avoided.

The battle of the breeds still rages, and never more strongly than to-day. The trumpeters out on the hills are calling to the owners of the various breeds to gird them for the fray. The Holstein men are standing bravely to their guns, and we need scarcely add that all along the man who has championed the Jerseys in the Dominion is now in the very thickest of the fight, and we are glad to notice that every blow he strikes is measured. We have long admired men with strong convictions and the courage to defend them, and whichever way the tide may turn we trust that it will be to the advantage of the dairy world.

This narrative would be incomplete did we fail to recognize the distinguished part played by Mr. Norton, the manager at the Oaklands. While the Jerseys remain a distinct breed, the name of the proprietor of Oaklands cannot die, and we are glad to think that so long as that name lives, the remembrance of Mr. Norton, who has managed this herd with so much of wisdom and sound judgment, will live also. Why can we not have more able managers?

### The Ontario Agricultural College and Experimental Farm in 1885.

The eleventh annual report of this institution has been to hand for some time, but not until now could we get space for a notice of the useful work that is being done there.

The President, James Mills, M. A., prefaces his report with some remarks on agricultural education, to prepare the way for the following statement, every letter of which we endorse: "I am of opinion that the first principles of agriculture could and should be taught in the rural schools of this Province." He also favors the establishment of High Schools, or rather the utilization of some of those which we have to the purposes of imparting knowledge in the various departments of agriculture, thus bringing these schools within the reach of any farmer's son who may desire to profit by their advantages.

The course of study goes over a good deal of ground, and to this last we desire to call the earnest attention of farmers' sons. We are quite sure that no farmer's son can pass through such a course without being vastly the gainer, if he is searching for knowledge, and any young man who is not drawn to the college by this motive should stay away. Failing to do so, he should be sent away so soon as this fact is known. We give the usual routine of study for both years: *First year*, Agriculture, Live-stock, Dairying, Inorganic Chemistry, Organic Chemistry, Geology and Physical Geography, Structural and Physiological

Botany, Physiology, Zoology, Veterinary Anatomy, Veterinary Materia Medica, English Literature and Composition, Book-keeping, Arithmetic and Mensuration. *Second year*—Agriculture, Live-stock, Arboriculture, Agricultural Chemistry, Meteorology, Systematic and Economic Botany, Entomology, Horticulture, Veterinary Pathology, Veterinary Obstetrics, Veterinary Surgery and Practice, English Literature, Political Economy, Book-keeping, Mechanics, Levelling and Draining.

The president complains that the professors sometimes spend their strength in vain in trying to instruct city boys who don't want to be instructed. This is peculiarly unfortunate. If our Government would only send them through the sifting process of putting in at least a year on the farm before admitting them to the college, how much labor would be saved. Our farmers' sons are the young men who in the main should go to the college. Of this class of material the staff can generally turn out something of which they and the country might well be proud. We are pleased to note the remark of Mr. Mills, to the effect that at least *ninety-five* per cent. of those who have come to the college from the farm have returned home with increased interest in their chosen life work.

In 1885 the number on the roll was 175, of whom 103 came from Ontario, 14 from Quebec, 30 from England, 5 each from Ireland and Scotland, and Jamaica, Turkey, Wales and the Island of Jersey sent one each. Never before was a class of students "so industrious, law-abiding, and easy to manage." Put them all through the one-year course sieve on a Canadian farm and we venture to remark that there will be still further improvement.

The revenue of the college for the year was \$7,885.90, and the net expenditure \$19,101.63, or a little more than nine cents to each average farmer in Ontario. The sum paid for labor of students on farm and garden was \$3,696.29—a pretty large sum it seems to us, and we think it unfortunate that the sum paid for outside labor in managing the farm was not mentioned separately—doubtless an oversight.

This full, comprehensive and elaborately detailed report concludes by mentioning, amongst other things, a chemical and a botanical laboratory, and a cottage on the college grounds for the Prof. of Geology and Natural History.

In appendix 2 are the examination questions used during the year, which young men who propose attending the college would do well to see.

A great gap was made in the professional staff by the death of the late Dr. Hare. For enthusiastic devotion to his special line of work, Canada had but one Dr. Hare.

From the report of Prof. J. Hodges Panton, M. A., F. G. S., who lectures on Geology, Meteorology, Botany, Horticulture, Zoology and English, and who is also in charge of the museum and library, we glean that the latter contains 5,000 volumes, and that the former has been enriched with several donations during the year.

Professor F. C. Grenside, V. S., reports but two cases of abortion with the cows during the year, and that the disease is now entirely gone. Two cases of death in sheep are mentioned from inflammation of the liver induced by cold, and the death of a Guernsey cow from an affection of the heart. His report concludes with the very modest and the very reasonable request that in the new stabling accommodation there will be an apartment for use as a veterinary hospital.

Prof. Wm. Brown comes on with his report, fearless, frank, free and full. He surprises us on the

very threshold by stating that they have found that permanent pastures fully eradicate Canada thistles, and in a short time. This will be glorious tidings indeed if the experience of those who have put down permanent pastures in dissimilar soils is found to chord with that of the professor.

He tells us that the source of revenue for bulls for the year amounted to \$608, or more than six per cent. on the outlay, and that the cattle alone on the farm have returned a gross revenue of \$3,473, notwithstanding the loss of \$1,170 through abortions.

The experiments made with dairy cows of the different milking breeds by way of test have been severely criticised, both in the columns of the JOURNAL and of other papers. The Holstein-Jersey war has grown out of this, and what the end may be we cannot tell, but without a doubt the result will be the further concentration of the attention of those engaged in milk production on the claims and merits of the different breeds. The desire for sifting investigation is quite as wholesome on the part of the opposition in the management of herds as in the management of states.

A valuable experiment was conducted in reference to the rearing of calves on skim-milk, which lasted from November, 1885, to April, 1886. The calves selected were Shorthorn grades, one bull and one heifer, and were allowed three days with the mother before beginning skim-milk. The average daily treatment consisted of two meals of skim-milk; linseed boiled to a jelly and molasses and oatmeal mixed in the warmed skim-milk. The daily rate of milk fed was 18 lbs.; of oatmeal, one teacup; of linseed meal, 1½ tablespoon; of molasses, 1¼ tablespoon; and given quantities of clover-hay. Roots were added, commencing with the twelfth week. The average weight of the calves at birth was 72 lbs., and when weaned 150 days hence, 376 lbs. The total cost of food was \$8.82 for each calf, and the veal at the end of the experiment was worth \$15, a result quite satisfactory.

The remaining chapters of the report will repay a most careful perusal. Although we do not agree with the professor in everything he says, we must acknowledge that he says a good many things that are new and important. He answers the question as to which are the cattle for Ontario by saying that the special dairy wants of the Province can be fully maintained by selection from her common grade cows, and her conjoint beef and dairy wants by the Shorthorn; or, to put it in fewest words, by the *Shorthorn* and her grades.

Young men of the farm, send for this valuable report, and read it carefully. Think over it and gather from it much that will be useful in your future practice. By applying to Prof. Mills or Prof. Brown, Guelph, or to the Minister of Agriculture for Ontario, you will get a copy free.

### Dishorning Cattle.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I was glad to see you take the stand you did in the April number of the JOURNAL regarding this cruel and barbarous practice—a practice much better adapted to the dark ages than to the age of progress and enlightenment.

It appears that some men are so thirsty for notoriety that they care but little how it is attained, so long as they can get their names before the public—whether it be by knocking off the horns of innocent calves, as in the case of Mr. Haaff, or knocking the heads off their fellow-men, as in that of Sullivan. It is very surprising to me that a paper, a stock journal, like the *Western Rural*, should sanction such a nefarious and cruel practice.

Windsor, Ont.

J. DIMONÉ

### Report of the Council of the Agriculture and Arts Association of Ontario for the year 1885.

This report, which for lack of space we could not notice in our last issue, is a pamphlet of some 251 pages. It gives details sufficiently full and complete to satisfy the most fastidious, and a perusal of it will give some idea of the vast amount of work done by the secretary, Mr. H. Wade.

From the secretary's report to the Council we learn that the registrations of pure bred stock for 1885, were,

CATTLE.	Males.	Females.
Shorthorns,	900	930
Ayrshires,	159	176
Polled Angus,	16	32
Herefords,	12	13
Devons,	15	10
Jerseys,	3	10
SWINE.		
Berkshires,	97	129
Suffolks,	14	14
HORSES.		
Clydesdales,	46	28
Shire, or Cart Horse,	39	11
	1304	1353

For the examinations in agriculture eleven candidates sought third class certificates, and three second class. Eight of the former obtained them, and two of the latter, three of the ten successful candidates coming from the county of Wentworth. The course of reading preparatory to those examinations cannot be gone over without great good resulting, as it of necessity stimulates the search for knowledge on agricultural topics in many channels. Our only regret is that more of our young men do not avail themselves of the opportunity thus afforded them by the association. Instead of ten candidates for the Province, why may there not be ten for each county?

On pages 120 to 123 of the report is found a list of the examination papers used in 1885. Young men who intend to present themselves for examination this year should send at once for a copy of the report to H. Wade, the secretary.

Mr. Wade gives a very interesting report of his official visit to the New Orleans exposition, and one which contains a vast amount of information.

From the report of the judges on prize-farms we take the following extract in reference to the gold and first silver medal prize-farms—those of Messrs. Thomas and Wm. Graham, near Ottawa:

"The Messrs. Graham fearlessly took hold of the lands they own when they were shunned by other men on the supposition that they were hopelessly wet, and by dint of hard blows and unceasing efforts directed by well-utilized brain-power, have transformed them into the gold and first silver medal farms of 1885—a striking instance of that pluck which has placed the Anglo-Saxon in the ownership of nearly half the globe, and in possession of all that is best worth having in the onward march of civilization. Nor would it be fair to those men who have shown such unflinching determination of purpose, not to mention that such result has been achieved in the face of providential disaster that would quite have crushed the spirit of weaker men.

"In the autumn of 1870, a desolating fire swept over the district, commencing near Arnprior, which stayed not its work of desolation until a strip of country 40 miles long and 15 miles wide had been left one blackened, smoking ruin. The Messrs. Graham lost everything aboveground that would burn. The buildings were burned to the foundations, the fences were wiped out of existence, the implements were numbered with the things that were, the pigs were turned to cinders and the horses almost ruined. All that was left was the clothing that happened to be worn, the ground that would not burn and a calm constancy of purpose that defied the fury of the flames, and which the aggravated tribulation could not crush. While the men along the St. Lawrence were allowing wild mustard to disfigure their fields with its mournful yellow, a thankless heritage handed down from their fathers,

the Messrs. Graham, with a resolution that is but feebly set forth by the use of the term heroic, commenced, while the air was yet stifling, and clouds of smoke lowered in portentous silence in the heavens, to erect the work of previous life that had been derelict in a day; and by dint of energies applied, have not only obliterated all traces of the devouring scourge, but during the fifteen years that have intervened have put their farms in shape and erected buildings that would well nigh provoke the envy of many of our foremost farmers of the West. Canada has had her heroes as well as England, and some of them dwell in the Ottawa Valley; and their grand achievements deserve the fitting recognition at the hands of their countrymen, of a gold and silver medal for the excellence of their farms."

### Inquiries and Answers.

#### A STANDARD HOLSTEIN.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Will you please give the principal points and marks of a good Holstein?

F. J. RAMSEY.

Dunnville, Ont.

Please see the May number of the JOURNAL for 1885, page 119, where the points of the standard Holstein are given.—ED.

#### COTSWOLD SHEEP—ORIGIN AND COLOR.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Please enlighten us on the following points: (1) The origin of Cotswold sheep. (2) Should a pure Cotswold have black spots on face and legs, or should they be pure white?

SUBSCRIBER.

Douglas, Ont.

ANSWER BY J. C. SNELL, EDMONTON.

1. The Cotswold sheep were originally bred upon a range of hills in Gloucestershire, England, which afterwards took the name of "The Cotswold Hills," being so called from the fact that in winter the sheep were housed in low sheds or *cotes*.

2. From the standard of excellence and scale of points adopted from the American Cotswold Association, we quote, "Face, either white: slightly mixed with grey, or white dappled with brown. Legs, may be mixed with grey, or dappled with brown." Some of the best Cotswolds ever imported to this country had grey or mottled faces, and we are old that some of the leading breeders in England, in advertising their ram sales, call attention to the fact that a considerable proportion of them are grey faced.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—Will you kindly advise us through the columns of the JOURNAL where we can purchase a jack-ass, either on this side of the water or in England? Some of the Club favor purchasing one for the purpose of breeding mules—also give probable price.

R. W. TREMAINE,  
Sec. Ag. D. Soc'y.

Sackville, N. S.

Will some of our readers answer the above?

### Veterinary.

#### Diseases and Accidents Incidental to Parturition.

BY F. C. GRENSIDE, V. S.

##### INVERSION OR EVERSION OF THE WOMB.

This accident is commonly spoken of amongst farmers as "coming out of the foal, calf, or lamb bed," as the case may be. It is not of infrequent occurrence, and often results disastrously if proper and prompt measures are not taken to remedy the condition. It is one of those troubles that demands the intervention of man, for nature, conservative as she always is in trying to restore anything abnormal in the animal economy into its healthy condition, is powerless to deal successfully with this.

##### THE SYMPTOMS

of this accident are in some cases not visible, and only consist in the turning outside in of a portion or the whole of one or both horns of the womb. If an examination were made with the hand it might be possible to determine the existence of this partial form of the trouble, otherwise its presence could only be suspected by the occurrence of after pains of greater or less intensity. The straining which the incipient displacement generally gives rise to is usually followed by a greater degree of inversion until the womb presents itself as a tumour in the maternal passage. This is often the first sign that is noticed, and is most perceptible while the animal is lying. Unfortunately it does not remain at this stage, in many cases, nor is recession likely unless measures are then taken to bring about its replacement; but a greater mass makes its appearance until all or nearly all of the organ is visible, externally, presenting itself as a pendulous mass. Even the passage to the womb (vagina) is in many cases expelled, thus increasing the volume of the hanging body and adding to the gravity of the case.

The naturally light red color of the organ becomes deepened in hue, and assumes a purplish-black tinge, in places, and at the same time enlarges by engorgement with blood until it attains a very considerable volume, being markedly disproportionate to the channel through which it got exit. In some cases, especially in animals in high condition, the cavity formed by the turned-inside-out organ is filled with a large quantity of clotted blood, and to such an extent as to cause death from loss of blood. The foetal envelopes, or a portion of them, in some instances remain adherent to the womb, and occasionally a rupture of greater or less extent through the coats is found to exist. The victim of this accident is much affected by it, and it gives rise to great excitement and irritability, especially in cows in high condition, leading to depression and prostration, often soon followed by death. Cows in low condition, although more subject to the accident, are less affected by it, and not continuing to strain so violently, as those in higher flesh, do not aggravate the trouble to the same extent, nor do they so soon exhaust themselves; so that in such subjects as the former a favorable termination is oftener met with if proper measures are adopted. In the mare the percentage of fatal cases is very large, the extrusion of the large organ seeming to cause a great shock to the system, producing excitability, which is often manifest by violence, and even by delirium. Mares will sometimes kick and even bite at the expelled organ. Such excitement is frequently followed by marked prostration and death.

##### CAUSES.

The influence which operates in bringing about this mishap is not always apparent. Usually it is some form of irritation due to bruising and abrasion of some portion of the generative organs at birth-giving. I have seen cases occur from the hind-quarters being lower than the fore, causing the womb, which is heavy at this period, to gravitate backwards and lead to straining. It is a wise precaution if a cow has to be tied in a stall, and not have the freedom and benefit provided by a loose box, that the hind quarters be raised above the fore by well-packed bedding. Simply raising in this way suffices to bring about reposition in many cases, if the displaced organ is within the passage.

In females that are in low condition, and consequently their various tissues in a relaxed state, this slipping out of the womb occurs, without any injury or irritation. The womb is retained in its proper

position by a broad fold of membrane, which in quadrupeds is not very strong, nature having relied to some extent upon the horizontal position of the body for conserving the relative positions of the organs; but if this fold becomes weakened, there is a liability of displacement.

#### TREATMENT.

It is very important that those who have breeding stock under their immediate care should have some knowledge of how to deal with this condition, for if attended to early it will not give much trouble, nor will the result be so likely to be serious.

If the accident is threatened, as shown by more or less displacement, uneasiness, or paining, have the subject raised up behind as much as a foot at least, and if this does not allay the irritability, expulsion still being threatened, put three stitches of strong string in the lips of the passage (vulva), taking care that they are inserted to the depth of an inch in the lips, for there will then be less danger of tearing. Straining can be controlled largely by tying a rope tightly around the loins and flanks. Chloral hydrate in ounce and a half doses dissolved in thin gruel or milk, and given every two hours, will pretty effectually stop paining, and will not require to be repeated more than three or four times in most cases. Laudanum does pretty well in some cases, but is apt to cause excitement in the first stage of its action in certain subjects, so that preference should be given to the chloral hydrate, if it is at hand. Two ounces of laudanum is a dose for a mare, but a cow may get three ounces in a pint of water. Two teaspoonfuls of chloroform diluted with water, and given at intervals of an hour, acts satisfactorily in arresting straining in cows or mares.

If the womb or a portion of it is already protruding and hanging, when a case is first noticed, a large and clean towel should be placed underneath it, and kept raised as high as possible, in order to prevent it from falling, and becoming engorged with blood. The pouring of cold water over it continually until it is returned, not only cleanses and soothes it, but also prevents it from swelling. These preparatory measures should be faithfully pursued, while a dose of one of the medicines already spoken of is prepared and given.

The administration of a medicine is not absolutely necessary, but if a subject is got pretty well under the control of an anodyne agent it renders the operation of reposition more speedy and less difficult, with greater likelihood of ultimate recovery. The patient should be got to stand, if possible, and if the other directions as to raising the hind legs, cleansing and elevating the womb, have been carried out, no time should be lost in proceeding to return the organ, smearing the mass with a mixture of one part of carbolic acid to eight of raw linseed oil, will facilitate its return. Fresh lard or cream will answer if the other agents are not at hand.

The operator should have an assistant, holding each end of the towel that is raising the womb. The manipulations of pressing and forcing the mass into the passage should be begun at the part nearest the canal, and after a portion has been returned in this way, if pressure is exerted on the whole extrusion it will, generally, after a time, suddenly slip into the passage; then its further disposition into its proper place will be easy. It should be forced as far back as possible. The hand should be retained in the womb for some little time, or until the violent expulsive efforts cease; then gradually withdraw. If the hind parts are kept raised, and the lips of the passage stitched, combined with careful administration of one of the anodynes mentioned, irritability will generally cease, and the patient recover.

In some cases the pains cause breaking of the stitches, under which circumstances it may be necessary to use a truss, in order to prevent a repetition of the accident. Various arranged trusses have been used for this purpose, but any kind that exerts pressure on the vulva, and that will effectually prevent extrusion or escape of the womb or vagina through its lips, will accomplish the object. A simple one can be thus made. Take two pieces of rope about the thickness of the hand-pieces of plough lines, and about fourteen feet in length. Double each one, which will leave a loop and two free ends in each. Lay them on the floor with the two looped ends together, and the free ends of the separate ropes away from one another. Let the loops lap one over the other to the extent of eight inches, then take the free ends of one and bring them back to the loop of the other, twisting one of them round each side of the loop several times, then straighten them out to their original position tightly. This arrangement will leave an open space that is intended to surround and press on the vulva. The free ends of one rope are to be brought up, one on each side of the tail and crossed on the loin; then taken forward and tied to a rope or strap fixed around the neck. The other rope ends should be brought down on each side of the udder and continued forward between the fore legs, to be attached to the rope round the neck. A girth buckled tightly round the chest will keep the ropes in their places and tend to prevent straining.

### Inquiries and Answers.

#### WHAT CAUSED THE MARE'S DEATH.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I would like to get some light on a case that happened with one of my horses about a month ago. A young mare coming four years took sick with diarrhoea on Monday, but not thinking it of much consequence, I changed the feed from cut feed to dry hay and oats. The result was that there was no passage by Thursday, when I sent for a veterinary surgeon, who gave injections of warm water and a dose of laudanum, and then injected more morphine in her neck twice, telling me that it would swell, but that I need not be alarmed about it, but to rub it occasionally, which I did. The swelling increased to such an extent that by Thursday she could scarcely lift her head, and she died during the night. She ate all right until Sunday evening, when I gave her some hay about 8 p. m., which she finished, her evacuations being quite regular. I took off her hide and found that the side of her neck where the injections had been made, was all mortified, and of a dark brownish color near the centre, and yellowish next the breast. Now, sir, what was the cause of her death, and of her neck having become in such a state, as there were no marks anywhere else on the body? Please let me know in your next copy of the JOURNAL.

F. F. BAKER.

Nottawa, Ont.

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

The irritation of the injection syringe evidently caused erysipelas, and it may be that the sudden accession of swelling at that part, interfering with the passage of air into the lungs, hastened death. A very slight and seemingly simple injury, such as that produced by the nozzle of a syringe, will sometimes cause serious consequences, if an animal is predisposed, as this one would be by the disease from which she was suffering. I have had abscesses form occasionally from the same cause, particularly when an acid is added to the solution of morphia by the druggist for the purpose of more perfectly keeping it dissolved. An acid should not be added.

#### LAMENESS IN PIGS.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I find that my hogs are troubled with some disease, the brood sows especially; they eat and drink fairly well but have lost the use of their hind quarters entirely. I have had two sow pigs lately

that are troubled in this way and have lost both their litters. I have them in good pens, clean and well bedded. Could you let me know of any treatment for this disease? I have been a loser to a great extent, as the breed cost me considerable. I had quite a number die from this cause. An answer would oblige.

GEO. SCHMIDT.

Pembroke, 4th April, 1886.

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

No reference is made as to the kind of food the swine have been receiving, or as to whether it is ergotised or not, which would have an influence in producing the kind of paralysis your pigs are suffering from. It is likely the confinement to the sty is causing the trouble. Sows with young, particularly, should have some freedom.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—As I am renewing my subscription, I would like to ask through your journal if there is any cure for a mare I have that is knuckled (or cocked) on her hind fetlocks. She is ten years old, and an exceptionally good roadster. I drive her probably on an average sixty miles a week. Several quacks have offered to cure her, but I have refused to let them try.

Washburn, Ont.

J. S. FOSTER.

ANSWER BY F. C. GRENSIDE.

There is very little likelihood of curing knuckling in a mare of that age, when it is well established. In young horses, a long rest, especially a run at grass, and thorough blistering, will usually be successful in effecting a cure. A blister composed of cantharides one part and vaseline four parts will be a proper agent to use.

### The Farm.

"ANY fool, however wasteful, can live by farming till the fertility of his farm is gone: when that is exhausted, he is done." In a paper read some time ago before the Farmers' Institute of South Huron, on "robbing the land," we used some strong language, but nothing quite so strong as the above quotation, which is taken from the *National Live-Stock Journal* of Chicago. And yet the statement of our much valued contemporary is certainly correct. It requires but little brain, and less exercise of it, to get a living out of lands from material furnished by preceding generations, until these are exhausted. To get the same returns, however, and keep the land in a state of undiminished fertility, is quite a different thing. In fact it is the achievement which none but good farmers can accomplish, while on the other hand, no farmer deserves the appellation of *good* who farms in any other way. We know this is a high standard, but it is within the reach of all who earnestly try to attain to it.

#### 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 April Journal.)

The laterals, heeding the lesson that nature has taught us, should, as far as is practicable, follow the descending inclination of the land, and enter the sub-mains or the mains at an angle, as streamlets do when joining watercourses, to facilitate the egress of the water. When one drain approaches another at a right angle, this must be changed into an acute angle by the use of curved pipes, as made by the enterprising New Jersey men already referred to. They should never be carried across the side of a hill, as in such a case the drain draws from the upper side only. Sometimes it is over full, and seams of hard pan may bar the water on its downward journey.

The depth of laterals should depend, not so much on

The character of the soil as on the necessities of the crops to be grown upon it, which are very similar in all soils with those of the same species, which, therefore, points toward a uniformity of depth where this is practicable. What this depth shall be is an unsettled point. Practice is at war with science in reference to it, especially the practice of our countrymen. Scientists, as J. Parks, say to us four feet should be the general average depth. The practice of our countrymen—and we have inquired of many of them—points to three feet and under. In stiff clay lands they incline to a less depth, and only in Mr. Green's and Mr. Malcolm's practice have we met with a greater depth, some of their mains being three and a half feet. The essayist of ten years hence will speak more pronouncedly than we dare to-day. It is not at all improbable that science here, too, will win, as the opinion expressed above is that of science founded at least upon the practice of some in other lands. Waring says, "If any fact connected with tile drainage is established beyond a doubt," (and yet our foremost drainers do doubt) "it is that in the stiffest clays ever cultivated, drains four feet deep will act effectually, the water will find its way to them more and more freely and completely, as the drying of successive years, and the penetration and the decay of the roots of successive crops modify the character of the land, and they will eventually be practically so porous that—so far as the case of drainage is concerned—no distinction need in practice be made between them and less retentive loams."

This is a most joyous proclamation for those who till the cruelly retentive clays which marble the watershed that lies east of the line of the N. and N. W. Railway from Hamilton to Port Dover, and which extends through the counties of South West-orth, and parts of Lincoln and Welland. But we have not been able to discover that ten rods of underdraining have been done in all that section, other than to prevent the flooding of cellars. If scientists are right here, the drainers of Ontario will certainly have to re-examine their bearings.

We can conceive the importance of coming to a right conclusion on this point. The prevailing idea, that just sufficient depth to escape the action of frost is sufficient, is certainly fallacious. We have to consider the action of the drain in lowering the line of saturation, and thereby keeping out of reach of mischief all water drawn upward through the medium of capillary attraction to the domain which should be given to the rootlets of vegetation. The moment when these reach this line, they at once cease to search for food in what is to them a land of the shadow.

Economy points in the direction of deeper drains, as one four feet in depth, drawing twenty feet each way, will certainly cost less than two drains drawing ten feet each way, providing the one does the work of the two; but in Ontario we wait for light here.

In reference to the distance of laterals from each other, there is no infallible rule, but for complete drainage, Waring—following Prof. Mapes—specifies forty feet as the distance for four feet drains, and (in reference to which there is apparently a consensus of opinion amongst drainage writers) twenty feet as the distance for three feet drains.

Large portions of the land in Ontario where underdraining has been done are but partially drained. In very many instances the mains only have been laid, but with grand results. In other portions the laterals have been put in at wide intervals in a tentative way, and with equally encouraging results. In no instance

have we met with a whole farm, regarding which the owner considered the drainage as complete (although there are a few such in the Province) save the one hundred and ninety-six acre farm of Mr. James Thompson, of Whitby, who commenced underdraining this farm some twenty-five years ago. In conjunction with the late James Dryden, he brought out a tile machine and a tile-maker from Britain, paying him in advance for his work. Supplanting what slab and auger-hole perforated pine-box draining he had done with tile, he gradually extended his operations to his whole farm. The soil is clay-loam, with a clay, hard-pan sub-soil a little gravelly in its texture. In constructing the mains, tiles from six inches downwards are used, in the laterals two-inch tiles, but he thinks those one and one-half inches would answer, and favors the use of small tile. Where water is plentiful, silt then is not likely to choke them. They are laid one and a half rods apart on an average, and three feet in depth, and have proved not only a source of great comfort but also of much gain to the owner. Canadian practice, however, oftener places them three to four rods apart, some thinking this distance sufficiently near, and others intending, as they get time, to put in an intermediate drain. Most are of opinion that obstinate clays should have the drains frequent and shallow to enable them to draw more readily, which opinion, as we have shown, is at variance with scientific theories, and we have met with no practical work in the drainage of this class of soils in Ontario from which to draw deductions.

To drain land completely, at once, is certainly important. It obviates the collection and removal of the machinery of drainage every time the work is recommenced on the same plot of land, and the work is more likely to be the finished product of one consistent comprehensive plan. Other reasons might be given; but where there is a scarcity of capital we do not object to the plan of running a main here and there—as time and means afford it. In this way the inexperienced will become schooled in the work, and thus mistakes will be avoided when the work is undertaken on a larger scale. It is very much easier to correct a few mistakes than when these have been committed on a huge scale, and the principle is a safe one for those weak in capital to keep out of reach of that interest serpent which is feeding upon itself.

Where a spring is to be drained, the water should be collected in a pit or pits containing stones or gravel, with a large tile in the centre of these, tapped by a line of tile running directly to a sub-main or a main drain.

When quantities of water run over a ledge of rock, as in a rainy time, and thus greatly wet the land below, a ditch should be cut near its base, and filled with stones up to the level of the line intended for the tiles, which are laid on boards and covered with some material before being filled, to prevent the earth from getting in.

Of the four kinds of tiles used, viz., the horse-shoe, the sole, the double sole, and the round, we have only met with the sole and the round in Canadian practice, and the latter, for the Canadian reason that they make better joints, while Old Country and American practice covets them, since a collar may be used with them, which effectually protects the joints from the entrance of earth, and gives more room for the entrance of water which is mainly at the joints. We have not met with the use of collars at all in Canadian practice, which is to be deplored, as they add but one-fourth to the cost of the tile, and certainly add very much to the permanency of the work. The sole tile

has been used most frequently in draining in this country, for the reason that this kind was principally manufactured at the yards, but round tiles are coming into general favor. The chief objections to the use of sole tiles are, that in drying, owing to the more rapid contraction of the top side, the joints are not good, and collars cannot be used in laying them. Our tile manufacturers here turn them out thirteen inches long, but more recent American practice makes them two feet long where the clay is suitable, which lessens the number of the joints, and yet sufficiently admits the water which flows the more evenly in proportion as the number of joints is reduced.

The size of the tile to be used depends much upon the nature of the work required. Canadian practice has used them from six inches down to two inches for the mains, and those from three inches down to two inches for laterals, those two and one-half inches being a favorite size with the majority. English practice often uses one and one-quarter inch tile, but never without collars, and science has shown that this size will carry off the water (as laterals) of the rainfall of any ordinary season. The less the fall, the larger the tile required. The size of the tile sufficient to do the work should be carefully weighed, as more than this is money wasted. No tile should be used that is not well burned, and that will not ring clearly when struck with a piece of steel. One single defective tile may lead to more loss of crop in one season and greater outlay in repairs than would construct many rods of drain.

(To be continued.)

### The Chief Need of Ontario.

[To be read for April.]

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—As our older woods decrease there will be, apparently, but one means generally used to give the country shelter, that is, long rows of evergreens will be planted. This is what has been found most successful. It is necessarily far more successful than maples or other deciduous trees, for these only give shelter in summer, while it is in winter they will be greatly needed here. The state of Ontario in winter, if the woods disappear as rapidly as they are going, and nothing is planted to replace them, will be far worse than that of a cold prairie country. Many people in Quebec, and some in Ontario, have left their farms because of the bleak winds of winter and spring which now renounces dwelling in the old homestead disagreeable and unhealthy.

There are ample means of shelter if we use the few years before the old woods are quite gone in procuring it. Young evergreens—pine, cedar, and the spruces—can be had in great numbers in some localities, and will transplant easily when small. When in after years a line of these has arrived at a good growth, it forms a high, solid, beautiful wall of living green, summer and winter, and is of such value to a farm in preventing too rapid drying in summer and in keeping off cold blasts in winter, that I never knew an individual who, having once grown such a protection, would have it cut down for a thousand dollars.

In the States people are beginning to go very largely into these schemes of field protection, and consequently the growth of evergreen seedlings is carried on, on a very large scale, by some of their nurserymen. In Waukegan, Ill., lately, I saw the nursery beds of Mr. Douglas, perhaps the chief evergreen planter of the States, where they are grown by millions, and sold in vast quantities every year. One way in which they are sent great distances is to sell them but four to six inches high, when four or five thousand can be packed in a small space. The buyer getting these plants them sometimes in his garden, and transplants in two years, or places them at once in the line where he wants them, and as they can be planted close at first, there are plenty to spare in a couple of years to fill up the gaps, if any fail. These are sold at very low prices—three to five dollars a thousand—and go to all parts of the country. If there were a good demand for Ontario I have no doubt our own nurserymen would grow them as cheaply.

But so far there are yet a vast quantity of young evergreens to be found in the woods or fields near them. In early spring, when the roots were kept moist, I have known them transplanted with great success. The best time is the first week in June, but that is so hurried a season that it is better to risk some loss now. If they are taken up young, say under a foot high, with plenty of earth adhering, they will grow well, at least I know many instances where they have succeeded.

R. W. PHIPPS.

Toronto, March 27, 1886.

We agree with Mr. Phipps when he says that forestry is the chief need of Ontario. Even stock-raising will not get on well where this industry is lacking.—Ed.

### Ontario Ranches.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Stock-raising in Ontario has proved on the average the most profitable mode of farming where the land has not proved too costly for grazing purposes. This drawback may operate near cities and in old settled communities, but there are large areas as near the great markets and as accessible by rail and water still Government property, and open to the first capitalist enterprising enough to try the speculation. In the valleys of Lakes Nipissing, Tamagaming and Temiscaming, alluvial grass lands exist to the estimated area of 100,000 acres, and along every river flats, thousands of acres may be found, which very little labor will leave ready for the plough, mower and horse rake. They are nearer true savannas than marshes or beaver meadows, bearing bluejoint, sweet-grass and beaver hay, with some brush and a few trees at intervals, more resembling a park than a prairie. The soil is alluvial deposit or brown clay, and holds the wash from off the surrounding hills for centuries. They vary from a few acres to flats of 300, 600, 1,000, or even larger areas along the lakes, rivers, creeks, and line of railway. There is always a sufficiency of building timber, fuel, and good water adjoining, and generally easy communication with the C. P. R. or roads. In no part of North America can fodder be raised cheaper or pasture be furnished better and cheaper for systematic stock-raising or dairy purposes. Heads of timothy 10½ inches long; turnips 10 inches diameter; 32 stalks of rye in a single stool, and wildgrass, above six feet high, are to be seen here, though settlement only began when the C. P. R. construction passed by.

The country is accessible by the shores of Lake Huron, Spanish, Missisquoi, French, Thessalon and Garden rivers, on the south; the C. P. R. and Callander branch for the centre, via Great Sturgeon and Ottawa for the northern portion.

THOS. FROOD.

50 Church Street, Toronto.

Although we do not doubt the correctness of the statements of our correspondent, parties should weigh well the length of the winter in that climate before permanently locating.—Ed.

### Underdraining—Tiles.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

DEAR SIR,—Unwittingly I became a reader of your LIVE STOCK JOURNAL within the few last months, and it remains for me only to say, that I feel highly pleased with its contents.

Although quite an aged inhabitant of this remote corner of the Dominion, I have been impressed with new ideas of late, not alone through the reading of your excellent JOURNAL but as well through the teachings of the Patron's Institution, called Grange, i. e., on the subject of farming in a practical way. I feel that even here it is high time to leave the worn down ruts of formalism and commence a career entirely new, to this country at least.

Having read your article in the March number of the JOURNAL on subsoil drainage, which being a subject that had occupied my attention for some time past, I the more minutely analyzed every part that might afford a clue to the practical drainage, so very much needed here, to insure general success to the farmer and to the country as well.

I had carefully studied out the various ways of filing drains, suggested by yourself, but have never put them in practice to any very great extent. Having

land myself which I am confident needs underdraining, I began to make enquiries with reference to the tile system—tiles have never been used in this country to my knowledge—the dimensions, figure, size, etc., if made on the farm, wages at \$1 per day, the probable cost per rod, the width and depth of trench, and how they are put down.

It has been my settled opinion for a long time that our low lands will in future be particularly cared for, and the first step toward making them productive must be the proper drainage; and the study that will lead to the most judicious way of effecting this may prove a great boon to the country's prosperity. I have considerably overrun my limits. Please excuse.

Hemford P. O.,  
Lunenburg County, N. B. }

FARMER.

### Shoulder-Straps.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

Do you know of any convenient way of making shoulder straps to carry a seed-box or can? The common run of these are shoulder breakers. Which is the finest and best wool, Shropshire or Southdown? EDWARD CREE.

Allandale, Ont.

Convenient shoulder-straps may be made from material used in making saddle-girths. The two straps composing them should cross each other on the shoulders, one passing through a loop in the other, and buckled the one to the other at the ends, so as to form armholes, with leather sufficiently narrow to admit of suspending to them an ordinary harness snap. These snap into rings fastened on the inner rim of the seed-box. The box and straps can be bought more cheaply at many hardwares than they can be made. When sowing is done by hand a box should be used. It is easily filled, and admits of the use of both hands in sowing. Southdown wool has a little the advantage in fineness of texture, but as yet in the immature state of our Canadian wool market, but little or no difference is made in the price. The Shropshire Down wool has the advantage of say one-third on an average in the weight of fleece.

### The Dairy.

#### Milk Tests.

In the last number of the JOURNAL, in referring to dairy tests, we made some remarks that might convey the idea that in milk tests in the general, sufficient regard was not had to the record of the food used. It is but fair to say that this does not apply to the Jerseys, as will appear from Rule VI, for official butter tests, adopted by the American Jersey Cattle Club, and which we give below. It reads: "The tester "may leave the feeding of the cow and the quantity "given to the cow to the discretion of the owner, or "he may supervise the feeding in order that no im- "proper ingredient may be given her, but he shall not "in any way limit the quantity of feed so given. In "all cases the affidavit of the feeder of the cow shall "be required as to the quantity and composition of "the food so given. The owner of the cow shall also "make affidavit as to his or her confidence in the ac- "curacy of the test, to the best of his or her knowl- "edge, and as to his or her confidence in the man "who fed the cow."

#### Holstein vs. Jersey Controversy.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

In the March issue Mr. Cook, in attempting to adduce evidence to show that the Holsteins are superior to the Jerseys in the quantity of butter given by the respective breeds, states that Mr. L. A. Hardin, in a work on modern butter-making, publishes the results of certain tests made between the various breeds,

among them the Jerseys and Holsteins. Mr. Cook states they were "carefully conducted," and gives as an average yield of the breeds as follows: Jerseys, 281 lbs., Holsteins, 350 lbs. butter. Knowing that Mr. L. S. Hardin (styled Mr. L. A. Hardin by Mr. Cook), who is now the live-stock editor of the *American Agriculturist*, was a good authority upon dairy matters, I wrote him upon the subject, and in reply he states, "My table was contained in an article, not in a book. It was published in the *Country Gentleman*. The article was the result of information I had obtained at that time (some ten years since) of the yields of herds of not less than 10 head. The information of the herd yields was sometimes obtained only in milk, and sometimes in butter. The Holsteins, I think, were Neilson's, of New Jersey, 12 head, who gave an average of 8767 lbs. of milk. The butter was averaged by me on an estimate of 25 lbs. of milk to one of butter. They were all estimated at 25 lbs. except the Jerseys, which we put at 20 lbs. That was written 10 years ago. With the present experience I would put Jersey milk, when skillfully handled, at 16 lbs. to the pound of butter, and Holsteins at near 30 lbs., which would make a vast difference in the estimates. I have made you a copy of a part of the late table. I do not endorse it now with more modern light on the subject."

Judged by Mr. Hardin's more thorough knowledge of the relative values of the two classes of cows, namely, 30 lbs. of Holstein milk to a pound of butter, and 16 lbs. of Jersey milk to a pound of butter, the Jerseys in this table would produce 375 lbs. of butter and the Holsteins 292 lbs., the quantity of milk stated by Mr. Hardin being as follows: Holsteins, 8767 lbs.; Jerseys, 5625 lbs.

I would call the particular attention of your readers to the fact that Mr. Hardin in himself says this is an *estimated yield* as to the quantity of butter. That is, the quantity of milk was not an estimated yield, but *as the average of herds*. Is it not surprising the vast difference that there always is between actual results and *estimated ones*. Here is the actual yields of Holsteins, the average for the herds, 8767 lbs. per head, which, while being undoubtedly a very large one, does not compare with the claimed yields of other herds. The estimated yield which Mr. Cook claims as being "carefully conducted," showed 350 lbs. for the Holstein and 281 for the Jersey; but Mr. Hardin, like many other advanced and reliable authorities, having in the meantime obtained more accurate information, satisfies himself that the estimates and actual results vary. Are the other tests and comparisons set forward by Mr. Cook in the March issue equally carefully conducted? because, if so, your readers will be able to form a pretty correct opinion of their value and reliability. Mr. Cook cites Mr. T. D. Curtis as an authority upon the exceeding great value of the Holstein milk for butter-making. As a further corroboration of the statement contained in my last letter, the case with which clippings are given, favorable to either breed, I will quote for Mr. Cook's enlightenment his own authority (Mr. T. D. Curtis), as it appeared in the *National Live-Stock Journal*, in which it is said: "In discussing the question of the Massachusetts State Law, it requires 13 per cent. of solids to be in the milk; 13 per cent. dry solids would not be too high for the milk of Jersey or native cows, but would be for Holsteins and Ayrshires."

I again claim that we cannot take individual cases as proving averages, and that for this reason Mr. Cook's cases are not evidences of the whole, exceptions proving the rule, and such cases as Mr. Cook has cited, assuming them to be correct, only prove the accuracy of this maxim, that where there are cases of Holsteins proving richness, it is the exception that proves the rule of the poor quality of the richness of the breed as a whole; but on the contrary the exceptional cases prove the accuracy of my claims, that the Holsteins, as a breed, give milk which is more lacking in butter fat and in total solids than any other dairy breed. In support of this there is the result at the Ontario Experimental Farm, the tests made at London, Ontario, the tests cited in my last letter for five years at the Islington British Dairy Farmers' Association show, made by Dr. August Volcker, by which it was shown that the Holstein in each case had the smallest amount of total solids of all the dairy breeds, the statement of Mr. James Long, one of the best known dairy experts in England, in which he clearly proved the poor quality of the Holstein milk. I feel satisfied that the public will prefer to judge by these public and disinterested tests rather than through the

spectacles of the Holstein or Jersey breeders, as to the relative value of the milk produced by each breed.

However, if this repetition of published results is not tiring your readers, I beg to call their attention to an article on the subject of Dry Solids of Milk, that appeared in the *National Live Stock Journal* of last month. By the laws of the State of Massachusetts all milk vended in that State is required to contain 13 per cent. of dry solids. During the year 1885 the milk from 601 cows was examined by the State Board of Health for Massachusetts, embracing different breeds, localities, and seasons, and under different conditions as to age, time of coming in, etc., as also that produced from various kinds of feed, so that a fair average of the milk as stated was represented. The average of dry solids from milk produced by cows upon farms was 13.36, and the average of milk from cows produced upon farms and public institutions was 13.26. The tabular statement for the 5 different breeds is as follows.

No. of Cows.	Breeds.	Fat.	Solids not fat.	Total solids.
17	Jerseys,	4.34	9.70	14.02
93	Natives,	3.31	9.77	13.09
30	Ayrshires,	3.35	9.75	12.97
51	Durhams,	3.28	9.44	12.73
47	Holsteins,	3.29	9.22	12.51

Here again, as with every evidence collected in an official manner or through public tests, the Jerseys lead the Holsteins in fat, in solids not fat, and in total solids, and the Holsteins are again proved as to the average production of their milk, to produce a milk which, under the laws of the State of Massachusetts, would be classed as *watered milk*, on account of its not containing the required percentage of solids, namely, 13, whereas it contains only 12.51.

Applying the law of the State of Massachusetts, requiring 13 per cent. of solids to the official and public reports we find that in that made at the Ontario Experimental Farm, the Holstein milk would be condemned as unfit for consumption; also judging by the results of five years experimental analysis at the Islington British Dairy Farmers' Association, a like result would be accredited to the Holsteins, they giving but 11.08 of solids.

The test made of 601 cows by the State Board of Health, where the average solids of all breeds was 13.26, would again condemn the Holstein milk as being unfit for consumption, it producing but 12.51. These are facts which the Holstein men are not anxious to have made known to the public, but they are matters of public record, and they are so true in their character that when the Holsteins shall be as thoroughly known throughout Ontario as Mr. Cook claims they will be before many years, the accuracy of these assertions will be bitter truths to those who prefer to purchase their experience by accrediting private tests and reports of individual excellence rather than judging by the public tests, and published results of the whole breed.

In the *Dairyman* of March, 1886, Mr. Cook uses this forcible if not polite language: "If Mr. Fuller really intends to substantiate the claims made for the Jerseys, let him challenge the Holstein breeders of America to an open contest and settle the matter, otherwise we shall accuse him of braggadocia and cowardice."

In the following issue of the *Dairyman* I stated plainly and distinctly my willingness to have Mr. Cook's American Holstein breeders accommodated by a public test between the two breeds, but I fancy this is not what he sought, because up to the present time neither Mr. Cook nor any Holstein breeder has accepted my challenge, either for Canada, or has offered to produce cows for the United States competition. Possibly my experience is similar to that of the Ayrshire breeders, the secretary of whose association writes me of the utter impossibility of inducing Holstein breeders to place their cows in public competition with the Ayrshires, side by side in official test, even where the Ayrshire men have offered to pay expenses, nor would they consent to have the food consumed taken into account. I would like to ask Mr. Cook who "has been guilty of braggadocia and cowardice" in thus asking me to extend an invitation to the American Holstein breeders for a contest and then carefully abstains from accepting it when I act upon his suggestion. Truly it would appear that the Holstein men infinitely prefer to have the public judge of the value of their wares through the spectacles of the owner rather than let the light of day in thorough tests conducted by disinterested parties, and in a public manner. Why this shunning from open and competitive tests and preference dis-

played for private claims. Is it that the results when shown to the public differ so widely?

I owe an apology to Mr. Yeomans for stating in your last issue that the cow De Vires was his property. It was inadvertently so stated through not consulting a letter in my possession as to this cow's test, and as to her butter yield: the letter correctly stated her as the property of Mr. J. W. Stilwell. It was my error in accrediting the ownership to Mr. Yeomans.

VALANCEY E. FULLER.

Oaklands, Hamilton, April 17, 1886.

### Those Dairy Tests.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—In the February number I took exception to the Holstein used in the Experimental Farm tests at Guelph, as being an exceedingly poor and inferior specimen. Since then Mr. E. A. Powell, in the *Breeders' Gazette*, has entirely corroborated my statements, as well as showing that gross deception was practiced in the matter of giving the cows' ages, etc. This article I enclose, which I hope you will publish entire, as it is of more than ordinary interest to Canadians, who are anxiously awaiting the outcome of Prof. Brown's much talked of experiments.

Hitherto a great many have expressed unbounded confidence in this gentleman's honor and fairness in his mode of conducting public tests. But what are we to think of this matter now, if Mr. Powell's assertions are true? By Prof. Brown's own admission in his letter to Mr. Powell, and by a tacit silence since the publication of Mr. Powell's letter, he has been guilty of doing a great injustice to the Holstein breed. I hope some one connected with the Experimental Farm will clear this matter up by giving a full explanation. Let us have more light.

Why was the fact that the Holstein was only twenty-two and a half months old at the time of the commencement of the test carefully concealed from the public, and her age instead increased to three years? Why was her name changed, and why was her herd book number with date of birth and importation withheld? Why was a little unacclimated twenty-two and a half months old Holstein, under an assumed age, pitted against a three-year-old Jersey and a four-year old Ayrshire in a contest which Prof. Brown alludes to as a "very fair one indeed"? Out upon such *fairness*. Could such evidence of partiality, not to say deceit and fraud, be expected from the very gentleman whom Mr. Fuller so glowingly alludes to as being the "very soul of honor"? Does not the whole thing savor largely as being a put up job to rob the Holstein of her reputation as a dairy cow of the first order; and is it not just enough to make an honest breeder sick? If it was found necessary to practice deception and fraud as regards age and conditions, what guarantee have we that the test was not the less *honorably* conducted in other ways? Is it any wonder, then, that the public have ceased to have confidence in this style of "public tests," so much lauded by Mr. Fuller? Perhaps this last named gentleman can explain these little discrepancies; he seems to have been kept informed.

I would also like to know why the official reports of the London and Toronto Exhibition tests do not appear in the annual report of the Agricultural and Arts Association? It looks strange that in another of these so-called "public tests" the very expert engaged in making the tests should forget to give the public an official and detailed account of his work. Why was Mr. Wade left dependent on the newspapers for the very mention of this "interesting" test in his report? Does it not look something like intended carelessness?

Come, Prof. Brown, let's hear the "most scientific means used in determining" the actual production in milk, butter and cheese, of the dairy cows tested at these exhibitions. Don't be ashamed of them. The public are anxious to know. You might also include while you are about it, the "most scientific means in determining" heifers' ages in vogue at the Farm other than by the sworn herd book pedigree. If you can't explain, of course Mr. Fuller can.

I would also like to know why Prof. Brown found it inconvenient to attend the Belleville meeting of the Eastern Dairyman's Association, as arranged. The Holstein men were there to meet him and discuss this test business in a fair and intelligent manner, but the professor failed to appear. If it was so inconvenient to attend such a highly representative meeting as the

Belleville one, how has he found it possible to attend every little cross-roads farmers' institute and dairyman's meeting from Huntingdon to Michigan, and palm off his hobbies before farmers where opposition was least to be expected? Does it not look as if Prof. Brown was dodging an intelligent discussion of these highly important matters? I repeat, let's have more light on these wonderfully interesting subjects. Come, Mr. Fuller.

JNO. M. COOK.

Aultsville, Ont., April 16, 1886.

### TESTS OF DAIRY COWS.

THE HOLSTEIN-FRIESIAN JERSEY CONTROVERSY.

To the *Gazette*.

My attention has been several times called to an article written by Valancey E. Fuller, of Ontario, under the above heading, which appeared in the *Kurat New Yorker* of Oct. 17. This article purported to show the comparative merits of the Jerseys, the Ayrshires, and the Holsteins for the dairy. The tables contained therein are said to have been compiled from the "advance reports" of Prof. William Brown, of the Ontario Experimental Farm. I do not wonder Mr. Fuller, one of the leading Jersey breeders of the country, should seize upon this report and take steps to publish it in every agricultural paper throughout the country. It was a golden opportunity for the Jersey breeders, providing they could convince the dairymen of the country that the tests were impartial and that the cows selected for the trial fairly represented the various breeds; that each cow was an average of the breed to which she belonged.

I beg your indulgence, even at this late date, to correct some erroneous impressions that may have been created in the minds of those not familiar with the actual facts. I do not wish to question Prof. Brown's good intentions, or the accuracy of all his calculations, but either through lack of knowledge of the Holstein Friesian breed, or from some other cause, he started on a false basis, by taking as a representative of this breed, a heifer of the very poorest class, inferior in size, in appearance, in quantity of milk, and in quality of milk for both butter and cheese.

A single moment's reflection will convince any intelligent breeder that no one cow can fairly represent any breed of tens of thousands of cows any more than a handful of sand will represent a sea-shore, and especially when that one is a poor insignificant heifer. As well might Prof. Brown, from the analysis of a handful of soil from some solitary sandhill write a treatise on the agricultural possibilities of the Dominion. Had he given the various dairy breeds a fair, impartial trial, by having a competent committee, interested equally in all the breeds, select at least half-a-dozen good representative cows of each and had them given the same care and kind of food for a year previous to, as well as during the time of trial (for it is now an admitted fact, proven by actual experiment, that previous condition and food have almost as much to do with the product of the cow as her present ration), he would have done a work of incalculable value to the whole dairy world. As it is his report is misleading, conveying an erroneous impression, and is a great damage to the dairy interests of not only the Dominion but the whole country. Any misleading tests are decidedly worse than none.

I wish here to say that Prof. Brown doubtless was prompted by the best of motives, a desire to give the people of the Dominion an equivalent for their outlay in maintaining an Experimental Station, but he was too hasty and made his report without the proper material to make it from.

Let us review some of the statements therein. The Holstein is given in the report as Verapina, three years old, weight 895 lbs., and dropped first calf in January, 1883. Prof. Brown describes her as "lanky and leggy." Nothing is said of her breeding. No herd-book number or date of importation is given, but by reference to the H. H. B. I find the heifer to be Verasina 10450, Vol IX, calved March 15 1883, imported May, 1884, and must have come out of quarantine the August previous to dropping her calf in January. This record and the name are confirmed by Prof. Brown in reply to a letter from me asking him for the dates of birth and importation, with herd book number of this heifer.

It will thus be seen that this representative Holstein-Friesian was only one year old past—a yearling—only twenty-two months old when she dropped her calf and commenced her record at twenty-two and a half months instead of being three years old as stated

in no less than six different places in Prof. B.'s report and confirmed by Mr. Fuller's letter. She dropped her calf in January before being acclimated and before she became accustomed to the severe winters of Ontario or to the feed and water in use there. All importers know full well the bad effect of such changes, not only in quantity but in quality of milk. Many good cows are almost worthless the first season after importation. Verasina may, therefore, yet prove to be a good cow.

Why this heifer's name should have been mis-spelled, why her H. H. B. number, the date of importation, the fact that she was not acclimated, were all withheld in the report, and above all why she should be called a three year old cow when in fact she was but twenty-two and a half months, why a "leggy and lank" little unacclimated heifer should be selected by such an institution as the Experimental Farm of Ontario to represent the Holstein-Friesian breed in such an important trial, are facts beyond my comprehension.

We will compare this heifer with the average of some of the largest herds of the same breed in the country in order to see if she is a fair representative. In doing so I will be pardoned for referring to a herd in which I am interested. I am compelled to do this as I have the necessary data at hand from only this herd and that of Messrs. Yeomans & Sons.

For the present milking year, now nearly closed, the Lakeside herd had in milk for five months (the length of time which the report in question covers), in all, fifty-seven head of two-year-old heifers. Their records were carefully kept by weighing each milking. The entire lot averaged for five months 5,575 lbs. For the previous year there were, in all, in the same herd, of the same age, milked through the season, twenty-six head. The entire lot averaged for five months a little over 5,350 lbs., and for the year 10,810 lbs., although a few did not complete the year. Fifteen of the number averaged 12,307½ lbs. In 1882 Messrs. Yeomans and Sons reported fourteen heifers, two years old (their entire herd of that age), which averaged for the year 11,118 lbs. 3 oz. I have not their exact records for five months, but they must have averaged fully as much as the Lakeside Herd for this season (5,575 lbs.) and probably more if a large majority of them dropped their calves in the spring and thus had the benefit of fresh feed. Here we have ninety-seven two-year-olds, all recorded Holstein-Friesians, embracing the entire milking herd for two consecutive years at the Lakeside Herd and the entire number for one year in the Yeomans Herd, which nearly all dropped their calves at from twenty-two to twenty-eight months of age, and the entire lot averaged for five months 5,515 lbs.

Verasina gave for the same time, according to Prof. Brown's report, 3,239 lbs., showing a balance in favor of each of the 97 head of 2,286 lbs. for five months.

Verasina weighed at twenty-five and one-half months 895 lbs. At the same age all the heifers at Lakeside referred to above averaged over 1,050 lbs. And those in the Yeomans Herd, I judge, were fully as heavy, showing this representative cow to be 155 lbs. under weight even as a two-year-old, instead of three, as in the report.

In butter I cannot give a comparison with the whole herds, as only part have been tested. In the Lakeside Herd seventeen two-year olds averaged for a week 10 lbs. 8 oz. Messrs. Yeomans, in their report on butter tests, give nine two-year-olds which averaged 12 lbs. 13½ oz. per week, so that twenty-six heifers averaged 11 lbs. 7 oz. Verasina made in 151 days 108 lbs., showing an average of 5 lbs. per week or considerably less than half the average of the twenty-six. Of course Verasina here had the disadvantage of the longer trial, but it is probably safe to conclude that if the test of the twenty six head had been continued for the same time they would on an average have nearly, if not fully, doubled her record.

This will be enough to show the character of this "representative" Holstein-Friesian as compared with some of the entire large herds of the same breed. It shows her to be 155 lbs. under weight, her milk for five months to have been 2,286 lbs. below the average and her butter about one-half.

(Concluded in our next.)

"I am well satisfied with your valuable paper. There is a lot of splendid reading in it. I like to see it come - John Case, Winger, Ont.

"I consider the JOURNAL the best paper for stockmen I have ever met with. Sorry I cannot induce my neighbors to subscribe for it." - J. Watson, Greenbank, Ont.

## Poultry.

### Diseases of Poultry and their Cure.

(Continued from March.)

#### FEATHER-EATING.

In this disease or habit we have a verification of the old proverb, "Satan finds some mischief still for idle hands (hens) to do." It is very seldom that we find this disease existing among fowls that have free range and plenty of exercise. It is chiefly found amongst flocks in crowded, filthy runs, and where little if any care is given to the health and comfort of the fowls. There may be exceptions to this rule, but in almost all cases it will be found that there is an existing cause which must be removed before a cure can be effected.

If the fowls are fed judiciously with a suitable variety of food, tonics in their drinking water, sulphur and stimulants weekly, an abundance of crushed oyster-shells, bone, charcoal, and old mortar; meat twice a week, green food frequently; salt in their soft food regularly; pure cool water constantly in summer; clean dry yards and grass run to exercise in; I think the cases of feather-eating will be few. If your yards are small, or the fowls are confined in the house, it is a good plan to scatter chaff or cut hay or straw over the floors and rake the grain into it; this will give the fowls exercise, and something else to think about (if they are capable of thought) besides feather-eating.

An ounce of prevention is, in this case, worth a pound of cure, so if you have any birds that are given to this habit, you had better isolate them from the rest of the flock, as the others will be sure to contract the habit. I do not think that there are any medicines that will benefit in this disease; tonics and careful diet are all that is necessary. In case a fowl has been badly plucked by another, the remaining stumps should be pulled out and the parts washed with warm water, to which has been added a small quantity of carbohc acid.

THOS. GAIN.

East Hamilton Poultry Yards.

For the CANADIAN LIVE-STOCK JOURNAL.

### Poultry on a Large Scale.

BY J. W. BARTLETT.

#### THE HOUSE.

It is our purpose in all our articles to be intensely practical. We breed poultry for the money there is in it, and if we derive pleasure from it, the pleasure is greatly enhanced by the knowledge that we make it pay; and although we feel a strong admiration for good fowls, we sometimes question whether that admiration would exist long if it cost us anything; in other words, whether we would keep fowls at all if it did not pay. Hence in these pages we purpose describing such buildings and appliances as will answer every purpose of utility, without regard specially to ornament or imposing appearance. Thus the houses we describe will seem tame and commonplace to the very elaborate houses and yards we see so frequently illustrated in the leading American publications. But many of those illustrations represent the grounds and buildings as they exist in the minds of the proprietors, or at least, to a great extent, as he intends them to be when completed. Others, again, are the property of men whose primary object in keeping fowls is pleasure, and who have the means to gratify it. For such these papers are not designated, but for the every day matter-of-fact farmer or cottager, who wishes to derive a fair profit from his poultry.

Different latitudes require different kinds of houses, but as in all parts of our Dominion we have a certain

amount of zero weather, we must be prepared for such, and even though the mercury rise to 50° above zero, we must be in a position to give ample ventilation on short notice. We must also so construct our houses that they will not admit the slightest amount of rain or soakage of any kind, and at the same time admit of a perfect flood of sunlight when available and required. If we provide these requisites, and allow six square feet of floor-room for each fowl we have a good, comfortable, and healthy home for our fowls, and one in which they will prove highly remunerative, if as well provided for in other respects. Just here we would call attention to extremely erroneous ideas generally prevalent as to the number of fowls one man can take care of. Most of those who have written us on the subject seem to think they could look after a thousand hens very easily, while in our opinion four hundred hens and the chickens necessary to raise each year to replace the older ones which are killed off, is quite enough, even for an able bodied, energetic man. We will therefore assume that our flock numbers four hundred. These will require twenty-four hundred feet of floor room. The poultry farm should be located, if possible upon a self-drained soil of sand or gravel, and the farther the water is from the surface, the better. In such a soil as this we should excavate to the depth of 3 feet, 16 feet wide by 200 feet long, and build an eight-inch brick wall three and a half feet high all around, setting in a door 3 feet 6 inches wide and 7 feet high in the east end next the north side. This door can be made double if desirable (we prefer it so). It will be seen that we have allowed four feet in width more than is required to secure the amount of floor-room requisite. This is for a hall to run the entire length of the building, thus enabling us to go the entire round of our duties under the roof, which is greatly preferable, especially in cold or stormy weather.

(To be continued.)

### The Wyandotte Fowls.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I notice Mr. Bartlett has a few words on the excellence of the Wyandotte fowls, in the April issue of your valuable JOURNAL; and as many breeders are interested in them just now, I hope you will give me space to add my tribute to their worth and beauty. I, like Mr. B., do not like to be too "gushing" over a new breed, but am so exceedingly pleased with this variety that it is only justice to them to tell it. I see Mr. B. has not tested them for table. I used a few last year, and they certainly are as good for table use as the best. The flesh has the fine grain and delicate flavor of the French varieties; the bones are small, and not much offal; in short they are fit for an epicure. Their activity is really astonishing, and they are the most docile of fowls. I have bred poultry privately for twelve years, and in that time have had experience with many varieties, but none have given me such entire satisfaction as I have derived from the beautiful and useful Wyandotte. They are not so liable (from their great activity) to get fat inside as the Plymouth Rocks. I went to considerable expense in importing my birds, and have tried to get the best, as I have found that a little extra outlay in the first place is the thing that gives good stock and good profit in the end, besides the satisfaction of having beautiful pets round me.

W. C. G. PETER.

Angus, April 8, 1886.

### Best Winter Laying Fowls.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I notice the statement of J. W. Bartlett, of Lambeth, Ont., in the April number of the JOURNAL that "the Dark Brahmas are the best winter layers by all odds." I beg to be allowed to differ with him. I have tried all breeds ever in this country, and know just what I am talking about when I state that with precisely the same care and treatment the Dimon

Creepers will lay a dozen eggs to the Dark Brahma's eight winter or summer the year through.

JOHN DIMON.

Windsor, April 9th, 1886.

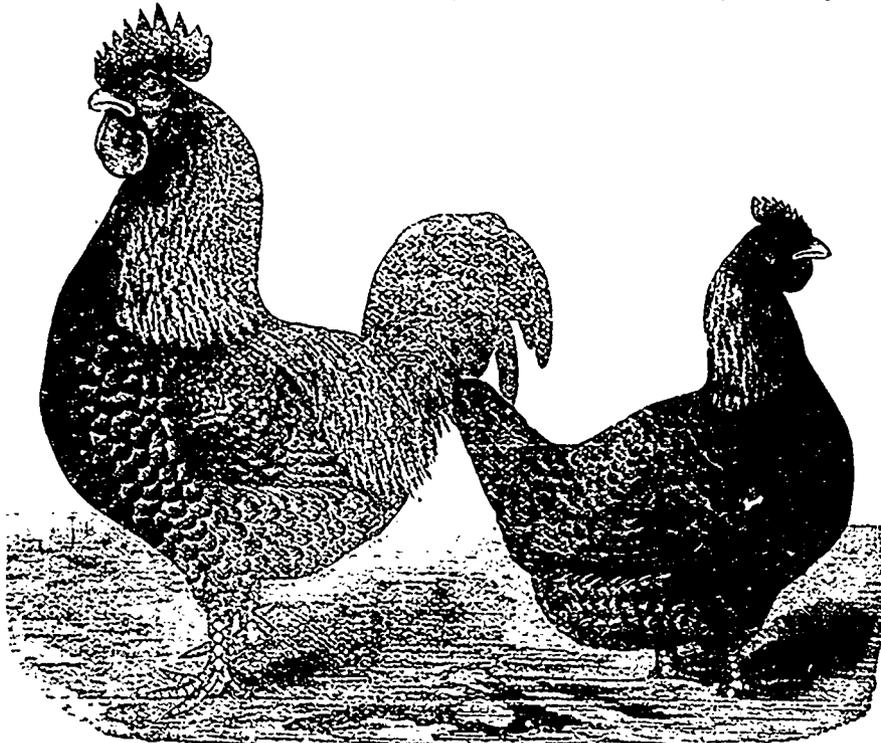
### The "Dimon Creeper" Fowls.

Mr. John Dimon, of Windsor Ont., (opposite Detroit), the originator of this useful breed of fowls so beautifully delineated by our artist, in the sketch below, speaks of them as follows. He says they are "the *ne plus ultra* of all fowls, originated by the subscriber after sixteen years of patient toil and careful crossings. The object being to produce a "good yellow-meated, juicy table fowl, and at the same time a hardy bird that would stand our northern winters, and the best laying fowl in the world the year through, and at the same time a gentle, easily handled, non scratching fowl, that can be raised at liberty in the garden, to the benefit of both the garden and the fowls, in the production

more are dying than are being hatched, and death to the colony is the result. And I might here remark that bees are not the only kind of stock that is troubled with disease. I have seen cattle badly affected, but in those days when cattle used to suffer, it was not called dwindling but rather *tailing*, that is, those affected had to be helped up by the tail. Like bees, some would die, and some would struggle through by barely the "skin of their teeth." I do not say the causes of the trouble are just alike, but in some respects they are, and the result, as far as profit is concerned, the same. For that year the cow gives little or no butter, and the bees little or no honey. And this is what I want more particularly to point out, that the loss is not confined to those who die, but most likely to a much greater extent to those that are too weak to gather the honey crop. For one that dies, three or four are generally suffering more or less, and are in consequence unprofitable. But in order that the beginner may more fully understand

to understand. Bees, like other kinds of stock, or even human beings, vary in the amount of vital force in their constitution. Those that are weak in this respect, are predisposed to injury from outside causes, just as a delicate person is more liable than a robust one. This accounts for the fact that one colony may be dying from spring dwindling, standing alongside of another, receiving the same treatment, that is strong and vigorous. I wish the reader to get this idea, and keep it, that there are no two colonies alike, any more than there are two men alike. They may appear so at certain seasons, but they are not, and the most important difference will most likely be constitutional. The vital force in the one is vigorous, in the other it is weak. What is the cause of this? The same as it is throughout all the animal creation, parentage. There is no remedy for the individual bee any more than there is for a weakly diseased person, but there is a remedy for the colony: it may be entirely changed by the introduction of a queen from a strong colony. If I am right, then, in attributing spring dwindling, very largely, to constitutional weakness, arising from the use of inferior queens, the remedy is not far to seek. Now is the season to think this over, and be prepared to make every effort to *breed from the best*. No one doubts the value of this principle when applied to all kinds of farm stock; and it is none the less important in breeding bees. Lack of profits, disease, and untimely death would often be prevented if this was more generally attended to. The only other important remedy I know of at present, is the keeping of the colony warm through the winter, say from 45° to 55°, and well protected, especially on the top of the hive in the spring, when breeding is going on.

Varied methods of manipulation are adopted by the bee-keepers, especially at this season of the year, for the purpose of getting the colonies strong in numbers before the honey flow commences; such as spreading the brood nest, reversing combs, doubling up weak colonies, etc. Work of this kind may be practiced by the experienced with some benefit. But my advice to the beginner is, to go slow. No direct or definite advice can be given as regards dates, as the seasons differ so much; but I consider the earliest that bees can be handled with safety, is about the time the apple-trees are in blossom. Colonies that live to this time generally pull through, but some may be so weak that the season may be required to build up for winter. Now what is wanted by most bee-keepers is to help those weak, from the strong. The way to do this with least danger is to go to a popular colony, and lift two or three frames, selecting those on which there are most young bees; a slight shake will remove most of the old bees, then with a feather sweep the young into the weak colony. Those bees that are newly hatched will stay wherever they are put, the old will go back to their own hive. Just in proportion as the bees are increased in numbers, the queen will increase her egg laying. Combs of hatching brood may also be taken from the strong and given to the weak. But as there is danger in increasing the brood nest before the tenth of June, I will suppose a case, and the reader must then judge from it to his own. A weak colony is on four combs, the two centre ones having a patch of brood about the size of the hand. Take these out and go to a strong colony, select a comb from which brood is hatching, perhaps ten times as fast as from the two; put this into the weak colony, bring the other two combs of honey, one on each side, so close that the bees will have to spread. A few young bees with this comb will also be a help. When those are pretty well hatched out,



DIMON CREEPERS.

"of the 'Dimon Creeper,' I feel that I have accomplished all I started out to do in 1869.

"They are hawk or Dominique in color, with very short yellow legs, heavy compact bodies, about the size of the Plymouth Rocks."

### The Apiary.

#### Spring Management.

Last month I gave some ideas on spring management, which have either been attended to before this or neglected. What was then said related more particularly to the necessity for keeping bees warm after putting them on the summer stands. That advice is still in force; but there are some other matters that should be understood and attended to in the present month, in order to be in the best position to secure the honey crop. The first thing that I will notice is, what every bee-keeper has more or less to contend with, that is, *spring dwindling*. The state of the colony when in this condition is that of a struggle between life and death. Bees are few in number and daily becoming less numerous, for the reason that

the nature of this trouble, I would remark, in the first place, that the more immediate or direct cause of dwindling is the age of the bees, and their *weakness* in regard to numbers. If in the last week in April or first of May the bees only occupy two spaces between frames, they are weak. When clustered if they only cover a space on those two frames about the size of the hand; beyond this they cannot rear brood, because the eggs of the bee must be brooded over and kept warm, in order to hatch, just as well as hen's eggs. In those small patches of brood on two combs, perhaps on only one, there will be capped brood, larva, and eggs, but the amount of capped brood is small, and from it bees hatch slower than the old bees die. The cluster and brood-rearing space become daily more contracted; under such conditions it only needs a few days cold weather to put an end to life; but with many colonies warm weather comes before the dwindling process has gone so far, they come through, but require the summer to build up into a fit condition for winter, perhaps to go through a similar process the next year. But there is a more remote cause, and one that is more important

another similar comb may be given. If this is successfully done, the effect will be *honey*, instead of *increase*. The first swarm that would have come from the strong colony is largely taken to build up a weak one, that has a laying queen.

It was not my intention in the present paper to say anything in regard to the taking of honey, but as it may be necessary to do something in this direction before another month goes round, I will say that just as soon as it is seen that the bees are building white comb between the tops of the frames, put on a super, and to encourage the bees to go up, a comb with some brood in it may be placed in it, supplying the place with another comb or a sheet of foundation. This will give room, and often prevents swarming. I have found a perforated metal honey-board a good thing to have between the brood chamber and the super. It prevents the queen from going up, thereby making a perfect separation between the brood and surplus honey.

I will conclude this paper with a few words of advice in regard to order and tidiness. No industry will respond more readily to thoughtful and careful management, and none will suffer more by neglect. I once heard the remark, from one of the most orderly, careful, and I might say, successful bee-keepers that I am acquainted with, "Bee-keeping is made up of little things." Yes, and little things are apt to be forgotten or neglected; but if they are, bee-keeping will be found a poor business. Each season of the year has its little things peculiar to it, to be looked after. At present the grass around the hives should be kept close, the hives properly leveled, blocks opened and closed as the weather may be warm or chilly, all the various fixtures needed for swarms and honey got ready, etc.

If the following mottoes are not in a conspicuous place they should be well impressed upon the memory: "A place for everything and everything in its place." "Never leave anything till to-morrow that should be done to-day."

F. MALCOLM.

## Horticultural.

For the CANADIAN LIVE-STOCK JOURNAL.

### The Apple.

BY D. NICOL, CATARQUI.

Tradition points to the apple as being the fruit of the tree which was in the midst of the garden of Eden, and which, when Eve "saw that it was good for food, and that it was pleasant to the eyes, and a tree to be desired to make one wise," although forbidden to eat or even to touch it, lest she should die, but being beguiled, "she took of the fruit thereof, and did eat, and gave also unto her husband with her, and he did eat." Scripture and geology, which have been supposed to differ on some things, appear to agree on this matter; and ancient literature seems quite in unison with the prevailing opinion. At all events it is quite probable there was an apple-tree in the garden, for the prophet Joel, enumerating the trees of Syria, says, "the vine is dried up, and the fig-tree languisheth; the pomegranate-tree, the palm-tree also, and the apple-tree, even all the trees of the field are withered." Whatever the fruit may have been, it was said to be of the tree of knowledge. The apple is said to be richer in phosphoric acid than anything else in the vegetable kingdom. Science teaches us that phosphorus is essential to the life, activity and support of the brain, and in this way contributes to knowledge. Then when we come to consider how

the exquisite, rosy-tinted cheek of the golden yellow ripe apple makes it more tempting than any other fruit, we have less difficulty in believing it to have been the unfortunate kind, that was so pleasant to the eyes.

The apple stands pre-eminently at the head of all fruit tree productions; and when grown to perfection is certainly an orb of tempting virtue. Homer mentions "apple-trees bearing beautiful fruit as one of the most inviting features in the famous garden of Alcinoüs." Another writer remarks that, as iron is rated among the metals, so the apple is ranked among the fruits." It is perhaps not the most luscious for the moment, but it is the most durably valuable of all fruits, and by far the most practical. It has nobility as well as beauty of appearance. For real worth there is no fruit at all to compare with the apple. The pear is a very delicious fruit, a wholesome luxury, and as such is valuable. The strawberry in its season is perhaps the most desirable fruit; the grape is a delicacy, the want of which would detract much from the pleasure of this life. The peach and the plum also afford delightful gratification to the palate; but they are merely ephemeral, while the apple can be had in a fresh green state all the year round, to nourish, cherish and stimulate both mind and body by its peculiarly corrective and exhilarating qualities.

In all languages it is named in connection with human companionship. It is a domestic fruit, to be enjoyed by the poor as well as the rich. No other fruit offers so much satisfaction to so great a variety of tastes. Some like sour fruit, some like sweet. In the apple rich aromatic acids are to be found in almost every degree, from the sweet to the pungent—and no two varieties are exactly alike in this respect. The acids which the apple contains are not only pleasing to the taste but act in a beneficial manner on the whole animal economy. Being full of vegetable acids and aromatic qualities which act as refrigerants and antiseptics, the apple is the enemy of jaundice, indigestion, torpidity of liver, etc. Indeed, it seems to be the natural antidote for most of the ills flesh is heir to. An apple eater is rarely either dyspeptic or bilious. An English writer says, "Doctors become poor as orchards thrive." There is no fruit that can be used in so many different ways; and there is no more healthful beverage than the juice of the apple.

The apple is very nutritious, as every one who has tested its merits well knows. In times of scarcity in England it was found that mill-operatives could work on baked apples without meat, when a potato diet was found insufficient. I know of a young woman who was likely to be seriously burdened by obesity, who applied to her physician for a preventative. He advised her to try dieting on baked apples and milk, without sugar, for a time, but at the end of a month she found herself heavier than when she commenced to use the remedy. I could offer many other proofs that cooked apples along with milk are sufficient without anything else, to sustain the human system in a healthy and vigorous condition for a long time.

The varieties of the apple are infinite. Of a million trees raised from seed the fruit of no two of them would be exactly alike in every particular, although they might resemble each other very closely in some respects; and there is perhaps not more than one in a million varieties produced from seed that has ever been perpetuated, although possibly every one in a million raised from the seed of superior kinds might have been considered tolerably fair fruit.

The practice of naming the choice varieties of apples after the person who first introduced them to notice, prevailed in Italy hundreds of years ago; and al-

though it may be a cheap, it is a very palpable immortality, for if it be true that "he who causes two blades of grass to grow where but one grew before, is a benefactor to his country," surely he who has succeeded in perpetuating one excellent variety of apple is entitled to particular remembrance. Some varieties of apples seem to have been unfortunate in the names they have had to bear—such as Smoke-house, Sheep-nose, Nick-a-Jack, Limbertwig; and some kinds have many aliases, which show the importance of attending to a good nomenclature at first.

## Trapping the Codling Moth.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

SIR,—I have found the following in the *Farm and Garden*, which I think may be useful to your readers: "One speaks of having hung a basin of sweetened water to the limb of a harvest apple tree, and found in the morning that the basin was completely covered with codling moths. He sweetens the water with sorghum molasses, and adds a little vinegar to give it aroma. He says the codling moth is no longer a pest in his orchard. Another states, "As a boy, when I was an enthusiastic moth-hunter, I remember well putting sugar or molasses on the trunks of trees, and attracting the moths of all kinds from the whole neighborhood, drawn by the wonderful sense of smell to the tempting sweets. In future I shall certainly give this simple and natural remedy a fair trial before I go to the trouble of tying bandages around my trees, which seems to be the plan recommended and pursued by most apple-growers." A third party advises an equally simple trap for this moth. He recommends hanging a lantern to the limb of a tree, setting an apple-box on end under the lantern, placing a pan half full of water on top of the box and putting a spoonful of coal oil in the water. The first night he states that he caught 200 moths with this one light; the next night seventy; omitting the third night, on the fourth night he caught over 300, and he is of the opinion that two lanterns in a ten acre orchard, lighted two nights a week at the proper season, will keep it pretty clear of codling moths."

What does your correspondent, Mr. E. D. Smith, of Winona, think of these methods of dealing with this great enemy to the apple?

R. R. HUNTER.

Dundas, Ont.

## The Home.

For the CANADIAN LIVE-STOCK JOURNAL.

### Eventide.

When work is finished for the day,  
And weary heart and hands may rest,  
'Tis sweet to steal a while away,  
And think of those whom we love best.

A sacred hour it ever seems,  
Apart from earthly strife and care:  
A time to dwell on holy themes,  
A time to spend in secret prayer.

And in that peaceful twilight hour,  
With overflowing heart we plead,  
That God will bless those we hold dear,  
And give to each as he may need.

MAUD.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

### "Penny Wise and Pound Foolish"

We think this proverb is very aptly illustrated by many of our farmers with respect to gardening. "Oh, I have no time to attend to a garden," is the usual reply when spoken to on the subject. Now, if a man can be convinced that a certain mode of procedure in regard to his crops and animals pays him well for the time and money invested, he requires no further persuasion to induce him to follow that method. On the strength of the foregoing statement, then, we will endeavor to produce proof positive that gardening does pay.

First, then, it pays on the ground of comfort. If a

farmer has a garden well filled with fruit and vegetables it lessens his wife's labor and worry—for no thrifty housewife likes to be confined to one bill-of-fare for several days or weeks in succession; and adds to his own and his household's enjoyments. In many country districts fresh meat can not be obtained as a daily article of food, and there is no resource but the inevitable salt pork. We think we do not overstate the case when we say that in many farm houses pork, potatoes and pastry constitute the bill-of-fare for breakfast; potatoes, pork and pastry for dinner, and abominable pastry, potatoes and pork for supper. Is not the health of a whole household worth consideration? And most assuredly this triple-diet must lead to indigestion, with its train of horrors.

Second. Gardening pays on the ground of *economy*. A farmer can supply the necessities for his household much more cheaply off his farm than he can by buying them. We know it takes time—which is money—to attend to a garden, but the bills of doctor, grocer and butcher are materially reduced, and money in hand realized from the surplus amount of garden product, as well as the power to occasionally send a basket of fruit to those less comfortably situated—and a garden properly cared for will do all this—is surely a paying investment.

In the third place gardening pays a farmer for *his children's sake*. If not confined too closely to it, nine-tenths of our farmers' children will love the garden with its fruits and flowers. A plot can be given them as their own special property, the proceeds to be theirs. The work among nature's productions will make them healthier, purer children, and besides, give better opportunity for inculcating usefulness by teaching them to give freely of their little stores, as well as foster a love for the beautiful. Then to farmers we would say, start your garden at once—this spring. You will be just as busy next year as you are this; your little ones will daily form ideas of life. If you wait for one, two or more years it will be too late.

COUNTRY LASSIE.

### Our Duty to the Indians.

Feed the hungry, clothe the naked,  
Love the most degraded red-skin;  
Bear his burdens, stop his weeping,  
Give him better work than hunting,  
Give him cattle for his buffalo,  
Teach him well the art of farming,  
Teach him often, teach him kindly,  
Slowly turns the tide of custom,  
Weak ones climb the mountain slowly,  
Often rest and sometimes slip back;  
But by climbing they grow stronger,  
Run at last to highest hill tops,  
Lead the Indian from his habits,  
From his slothful, sinful habits,  
From the things that slay his manhood,  
From the things that decimate them.  
Lead him by a bright example,  
Set before him highest models,  
Who have modelled after Jesus.  
Let the Indian have the gospel,  
Carry glad news to his wigwam  
News to lift to wealth the poor man  
News to help him to live longer,  
News most needed by the Indian,  
Tell him of the bleeding Saviour,  
Who has died to save the nations,  
To redeem the North-West Indian  
From his sins, and wants, and troubles,  
Who will take away his hatred,  
Who will make him love the white man,  
And forgive the men that robbed him;  
Who will send the Mighty Spirit  
To assist and help the red man  
All the way from earth to heaven,  
Where he'll meet his laughing children,  
Where no strong ones harm the weak ones,  
Where the skin is no criterion,  
Or the coat, or purse, or learning.  
Goodness is the legal tender,  
Always current among wise men,  
Though the rarest here in commerce  
Is the commonest coin of heaven;  
All are rich in golden goodness,  
Even streets are paved with goodness:  
There is found no fire-water,  
There is found no want or winter,  
But eternal bliss and summer.

Watford, 1826.

S. O. IRVING.

### It Pays.

An esteemed clerk in a New York bank was requested by the president one Saturday afternoon, to come to the bank the next day and help to bring up the back work. To yield to the request would be to violate the Sabbath, and he refused. The president insisted, and threatened to discharge him. Still he refused, and was discharged, with no prospect of future employment, yet with an approving conscience. Shortly after a new bank was organized and a trusty man was wanted for cashier. The same bank president offered to name a man who, sooner than sin, gave up his place, and then told the story of the discharged clerk. The nomination was at once accepted, and the upright clerk was rewarded with a higher position and an increased salary.—*Watchman*.

### At the Queen's Table.

Frederick the Great, King of Prussia, had a palace at Schonhausen. One day Queen Elizabeth, the wife of Frederick, was walking in the garden connected with this palace. Her gardener had a niece named Gretchen with him in the garden. She was on a visit to her uncle. Gretchen lived in the city of Berlin. Her father was a gardener, too.

The Queen talked with little Gretchen, and was so pleased with her simplicity and her bright and intelligent answers to the questions she asked that she told her uncle to let her come to the palace and make her a visit. So Gretchen dressed herself very neatly and went to the palace at the time appointed.

One of the court ladies who knew about it saw her coming, and told the Queen, who was then at dinner. The good Queen was much pleased to hear that her little visitor had come. She ordered her to be brought in at once. Gretchen ran up to her kind friend, courtesied to her very respectfully and kissed her dress. At the request of the Queen she was placed on a chair by her side, where she could see at once all the splendid sights which the table presented. There was a large company dining with the Queen. Lords and princes and officers of the army and ladies were there, sparkling with gold and jewels. It was the first time this innocent girl had ever seen such a sight, and the Queen felt curious to know what effect it would have upon her.

Gretchen looked quietly upon the costly dresses of the company, and at the beautiful dishes of china and gold that covered the table, and was silent for a while. Then, while all the persons at the table were looking at her, she closed her eyes and repeated in a simple, touching way, this verse of a hymn her father had taught her:

"Jesus, Thy blood and righteousness  
My beauty are—my glorious dress,  
Midst flaming worlds, in these arrayed,  
With joy shall I lift up my head."

The company was greatly surprised and deeply moved. One of the ladies said to the Queen with tears in her eyes, "Happy child! We thought she would envy us, but we have much more reason to envy her."—*The Fountain*.

### Jottings.

**Strange Freak of Nature.**—Mr. R. Martin, Cayuga, informs us that some twenty years ago he sold a ewe to Mr. Chas. Crickmore, then living in East Flamboro, but now near Chatham, which had two lambs full three weeks apart in date of birth, and that both lived.

**A Standard Work.**—A new edition of Stewart's *Feeding Animals*, the standard work of its kind, has been prepared by the author. The addition of 33 pages of new matter renders the volume more valuable than ever. It may be ordered from this office at publisher's price, \$2.

**Farmers' Institute.**—A Farmers' Institute has been organized in the county of Lincoln, with John D. Crowe, Fonthill as President; A. H. Pettit, Grimby, Vice-President; Roland W. Gregory, St. Catherine's, Secretary, and Thos. Keyes, Treasurer. The townships are well represented by an able directorate.

**Improved Stock.**—Breeders of improved stock find that they can increase the demand for it by extending the circulation of the *JOURNAL* among their neighbors. This they can do by making up clubs, or by using their influence to have yearly subscriptions to the *JOURNAL* included among the pre-

miums in the live-stock classes at the county fairs. In this way they can benefit their neighbors, and at the same time help their own business.

**Ontario Creamery Association.**—This association, as will be noticed in the advertisement, meets in Toronto at the Walker House on the 5th and 6th May, opening at 2 p.m. of the 5th. All dairymen and butter dealers are invited to attend. Arrangements are being made for reduced fares on the G. T. R. and C. P. R. All interested in the success of butter dairying should try and be at the meeting.

**Flattering to our Artist.**—"EDITOR CANADIAN LIVE-STOCK JOURNAL: We are so highly pleased with the electrotype you sent us of South Western, that we wish you to send us a small cut of the same.—Angus M. Campbell, Steele P. O., Oro, Ont."

[Mr. Campbell is the owner of this fine Clyde horse, the cut of which appeared in the September number of the *JOURNAL* for 1885.]

**Ontario as a Home.**—We learn from Mr. Geo. Leask, Greenock, Ont., who has a son in Queensland, Australia, that the yield of wheat in the harvest not long reaped, yielded but 2½ bus., per acre, and nothing to fall back upon to supply lack. Ontario is not the worst country in the world for producing. Young men should think twice, yes three times, before they leave it. Mr. Leask mentions that dairying, cattle feeding in winter, and summer grazing, are gradually supplanting grain growing as such in the county of Bruce.

**Card of Thanks.**—"DEAR SIR: I consider myself complimented in my profession as an agriculturist by the recent award of a second class prize farm. While subscribing for your valuable *JOURNAL*, I would also convey to the judges and yourself personally, through its medium, my sincere thanks to honor they thus conferred upon me. Assure them that that beautiful work of art (the silver medal), the memento of their official visit, will be kept by me, and handed down as an heirloom to my family. Yours very truly, JOHN AIRTI, Renfrew, Ont."

**Auxiliary Amusements at Exhibitions.**—A paper prepared by Thos. R. Mercein, General Manager and Secretary of the Milwaukee Exposition Association, upon the Auxiliary Amusements at Fairs, and read at the second International Association of Fairs and Expositions at Indianapolis, Ind., took the ground that auxiliary amusements, or those not inherent in, or belonging to the legitimate purposes of fairs and positions, are *wrong in theory, and injurious in practice*. Fair managers are public educators, not theatrical managers.

**Projected Railroad.**—We understand Mr. John R. Martin, Crown Attorney, Cayuga, Ont., and who is also a prominent breeder of Shorthorns, is working hard to bring about the construction of a railroad in connection with the Northern & North Western that will link Hamilton with Buffalo direct. The line in such a case would cross a section of country without a railroad, and would connect the Georgian Bay with the great American Emporium at the terminus of Lake Erie. We hope that the movement may succeed, and that the line will speedily be built.

**Our Autumn Exhibitions.**—The Toronto Industrial Exhibition will commence on Monday, the 5th of September, and close on the 17th of the same. The Provincial will be held in Guelph, commencing on the 20th of September, and closing on the 24th. The Great Central, of Hamilton, will commence on the 28th of the same, and closes on the 1st day of October. The time of the holding of the Dominion Exhibition has not reached us, but it goes to Sherbrooke, P. Q., this year. The respective Secretaries are J. H. Hill, Toronto; H. Wade, Toronto; J. Davis, Hamilton, and R. H. Tylee, Lennoxville, P. Q.

**The Outlook for Pure-breds.**—The indications for the immediate future of pure-breds is certainly favorable. The sale of Mr. John Gibson, of Denfield, on the 10th Feb., was certainly a success, and that of Mr. J. C. Snell, of Edmonton, held on the 7th April, the day after the terrible storm, was most encouraging. While the highest price paid for a female at the latter was \$425, and for a bull \$310, the all round average was \$208, though quite a number were calves. We would like to get summarized reports of sales of stock from our patrons generally, as in instances not a few we find it quite impossible to be present.

**Sweet Corn.**—It seems that there is a kind of corn sold as sweet corn for soiling purposes, which is not, in the true sense of the term. We have had inquiries on the subject, and in conversation with our townsmen, Mr. John A. Bruce, he informed us that the true sweet corn which has the shrivelled appearance, would cost the purchaser about \$2 per bushel. If there

was any considerable demand for it Mr. Bruce stated that their firm could furnish it for about the figure indicated. Whether it will pay to sow it at that price, farmers and dairymen must judge for themselves in the meantime. It is safer to try it in moderate quantity at first.

**The Journal in Agricultural Societies.**—Last season a large number of agricultural societies included a number of copies of the *JOURNAL* in their list of premiums, and with very satisfactory results so far as we can learn. While we return our sincere thanks to those who adopted this course last year, and indulge in the hope that the same may be repeated this year, we also trust that our friends connected with societies which have not as yet adopted this course will labor in the direction indicated. It is surely not claiming too much to say that the *JOURNAL* and scrub or inferior stock cannot dwell peacefully together. Wherever the former gains a footing, the latter must vanish.

**The Veteran Importer.**—Mr. Simon Beattie, who has had over thirty years' experience in importing and shipping stock of many of the breeds to this country, from Great Britain, France and the Channel Islands, is out with an announcement that he is still prepared to fill any orders that may be intrusted to him in the line of horses, cattle, sheep, swine, dogs and poultry. Mr. Beattie has a large establishment in Annan, Scotland, with accommodation for over thirty head of horses, besides room for cattle, sheep, etc., in connection with his business. The branch of business in Scotland will be under the supervision of his son, R. S. Beattie, who resides there, and who is to be admitted as a partner.

**The Dairy War.**—From a circular forwarded to us by Jos. H. Reall, President of the American Agricultural and Dairying Association, we learn that the manufacturers of counterfeit butter have agreed to raise \$500,000 to try and defeat the bill now in congress which seeks legislation adverse to their interests. Truly they must make a handsome profit on their manufactures when they can afford to spend so much in their defence. The circular characterizes the manufacturer of these imitations as the "most outrageous swindler ever practiced upon any people," and says: "The war of the revolution was fought for less cause." May the farmers and dairymen succeed in this determined attack upon the enemies of their prosperity.

**Halter-Training Cattle.**—The *Chicago National Live-Stock Journal* of a past issue had a sensible article on the above subject. The advantages may be summed up as follows: Shewing to the animal in a very conclusive way that man is its master, who intends it no harm, the risk of injury, which after handling necessitates is reduced to a minimum, and also the labor of doing this; the transit of animals from place to place is made easy and safe, and they are made to appear to much better advantage, both in the show-ring and in the sale-ring. The work should be commenced early, when the beasts are quite young, and the less busy season of winter is a good time for doing it.

**Coulter Cleaner.**—Mr. John M. Willard, a young yeoman, of Morrisburg, has invented a coulter cleaner which does its work well. It consists of a clip clevice on the beam of the plough, shaped and held in place by a set screw projecting from the side of the clip—A small pinion on which is fitted a rod extending backward above the rod, which holds the handles together, and a blade slightly curved, which hangs down alongside the coulter. When the ploughman wishes to clean the coulter, he simply has to draw the rod. It works admirably. The same young farmer has invented what he rightly terms a potato bug annihilator, which is wheeled along between the rows, and gathers in the bugs from both sides. It is very ingeniously constructed.

**The Ashurst Heritage at Steyning, Sussex, Eng.**—This farm of 1,500 acres is described by an English writer as being noted for the enterprise shown in the management of the farm, and of the live stock upon it. The late Mr. Stanford, grandfather of the present occupants, Messrs. E. & A. Stanford, settled upon the farm in the year 1779. Their pure-bred Sussex herd upon this farm numbers 200 head, one of the largest, and also one of the oldest herds of this breed in the country. They are described as very uniform in type, color and general attributes. They have also a fine stud of Clydesdale horses. It was a member of this firm who was so successful in exhibiting Southdowns at New Orleans, and fat sheep at Chicago and at Woodstock last autumn.

**An English Opinion.**—The *London Live-Stock Journal* of Nov. 27, which has an extensive and very flattering review of "Horse-Breeding," by J. H. Sanders, says, in speaking of the first chapter of the book: "Here we have not only the very best thought on the points referred to treated in an

attractive style, but the results of careful personal experience recorded. Mr. Sanders does not dogmatize on these subjects, many of which are intricate and not yet fully understood, but he expresses with courtesy and fairness the conclusions at which he has himself arrived. It would of course be impossible that there should be complete agreement on every one of the problems he examines, but the opinions of Mr. Sanders are powerfully supported, and he takes a common-sense and reasonable position in every case."

**Stapleton Castle Herefords.**—This herd, owned by Mr. Edwin Morris, numbers about 130 head of pure Herefords. It was originally started by Mr. Morris at Stanley Pontefract, in Gloucestershire, some twenty-five years ago. The herd was much enlarged at the sale of Mr. J. B. Green, now of Marlow Lodge, then of Gwemaffel, in 1875, by the purchase of 22 animals mostly sired by the splendid bull Renown 2719, the average price paid being £38 14s. The bulls now in service in this useful herd, which is never shown, are Youngster 6269, bred by Mr. T. Myddleton, Beckjay; Columbus 8424, purchased at the Lear sale, by The Grove 3rd and out of Columbine, and Captain Frere 8362. On a farm of 540 acres, Mr. Morris maintains annually 150 cattle, and from 800 to 900 Shropshire sheep, 22 Herefords from this herd were exported last year.

**Fare of Farm Teams in Scotland.**—From the *Scottish Agricultural Gazette* we learn that the usual plan of feeding farm teams there is to give the first feed of oats at five in the morning, and at the same time a little fodder, giving them about an hour to feed before leaving the stable. They then get a drink of water on coming out of the stable, and if they have had the chance of water before the oats, so much the better. At noon before going into the stable, they are again watered, and then get about another hour in which to eat their oats and fodder. At night after coming in for the day, they are again watered, get another feed of oats and fodder; and in winter, are groomed, and fed, and bedded between eight and nine in the evening. Will our Canadian farm hands make a special note of the grooming in the evening? It is quite as good for horses on this side of the Atlantic as for those on the other.

**Leicester Sheep.**—It is a singular instance of the swaying of fashion to have to chronicle that although in England the breeders of the Bakewell type of Leicesters comprise the names of such men as Hutchinson, Linton, Green, Jordan and Strickland, fears are expressed in some quarters that this ancient breed, to which almost all the other breeds owe something, is in danger of becoming extinct. To avoid such a calamity it is recommended that a record for the breed be established. Indeed it is recommended that in Britain records be established for all the principal breeds, which would undoubtedly prove a step in the right direction. The breeders of Shropshires have shown an example here that might be followed with profit by the admirers of the other breeds. The thought of the multiplication of those registries reminds one of the wonderful accumulation of this class of hard-task literature in coming times. And yet they are a necessity in this modern age.

**Points in a Shorthorn Calf.**—The Rev. Holt Beever, in the *Mark Lane Express*, gives the following directions to assist in forming a judgment of the future of a Shorthorn calf: "Look first at its head and front, then, if they please, see if the top-line of its back will divide thus: From bone by tail to hip-bone should be the same length as from hip-bone to top of shoulder, and as from top of shoulder to the point right above the bend of the neck. Then the leg should be half the depth of the carcass in length. Having proceeded so far with satisfaction, now come the crucial inquiries. Through the heart, is it hollow, or has it a full rounded frame, within which the lungs can play? Then the last point in explanation, but the first in practice. From hip-bone to hip-bone across the back should be exactly the length of from hip-bone to bone beside the tail. Never be content if you have a chance, with anything less, and on the plate of the loin and hind quarter you should feel a decided layer of meat. Above all things insist on the breadth of loin."

**Lord Coventry's Herefords.**—The Croome Court herd of Herefords, owned by His Lordship, was established eleven years ago, and has already carried some eighty-six prizes at the principal shows in the United Kingdom. At the dispersion of the Adforton herd, owned by the late Mr. Wm. Tudge, in 1887, Lord Coventry purchased nine animals, of which the plum was the prize-winning cow Giantess, for which 140gs. were paid. This cow with her son Good Boy 7668, and daughter Golden Treasurer, by Marechal Neil 4760, formed the group which carried first at the Royal, at York in 1883, and has been a potent factor in building up the excellent herd at Croome Court. Other selections have since been made from the herds of Mr. Roberts, Tripplenton; T. Rogers, Coxall; Mr. Taylor, Hingehill Court;

P. Ballard, Leighton Court; Mr. Downes, Mars-mawr; Mr. Myddleton, now of Beckjay; Mr. Jones, Broadstone; Mr. Wicksted, Sharenhurst; R. L. Burton, Longner and Mr. Turner, The Leen. The herd now numbers 140 head. Fisherman 5913, bred by Mr. Rogers, Coxall, and the sire of Good Boy 7668, one of the best Hereford bulls living, has been of great value in forming the herd.

**Meeting of Shareholders.**—A meeting of shareholders of the Ontario Central Agricultural and Live-Stock Association was held in Port Perry on the 24th April, the association having just received their charter from the Ontario Government. A large number of shareholders were present and the proceedings were most harmonious. The following gentlemen were elected Directors: Bowmanville, Robert Beith; Oshawa, T. W. Dingle, E. B. Morgan; Cartwright, James Parr, R. B. Splinks; Scugog, Jas. Graham; Reach, Peter Christie, L. Burnett, W. McGill, D. McKay, John Martin; Brock, T. H. Glentennan, W. Shier, James Rennie, John Hickingbottom, R. E. Porritt; Muripos, Reuben King, George Stewart, John Dames; Pickering, James I. Davidson, Robert Miller; East Whitby; John Howden, R. H. Mackie, George Ormiston; West Whitby, Arthur Johnston, John Vipond; Uxbridge, T. Todd, A. McGilivray; Port Perry, Geo. W. Dryden, John Adams, A. Ross, C. McKenzie, J. Blong, C. C. Kellett, J. W. Meharry, W. J. Trounce, W. J. McMurtry, E. Major, S. Bruce, C. R. Henderson. At a meeting of the directors, held immediately on the adjournment of the meeting of shareholders, James I. Davidson, Esq., of Pickering, was elected President; John Adams, of Port Perry, 1st Vice-President; Peter Christie, of W. Reach, 2d Vice-Pres.; James Parr, of Cartwright, 3d Vice-Pres.; W. J. McMurtry, Treasurer, and C. R. Henderson, Secretary. A splendid site of suitable land, containing 21 acres, has been obtained, and contracts for buildings are let. The first fair will take place next fall.

**Canadian Clydesdale Matters.**—At a joint meeting of the directors of the Dominion Clydesdale Association, and the herd book Committee of the Agricultural and Arts Association of Ontario, recently held in Toronto, it was resolved that "An Appendix be added to the Clydesdale stud book, to be called the Canadian Draught Horse Record of Mixed Breeding, Clydesdale blood predominating, and that horses with Shire blood in them be entered consecutively in their distinct book, and that a distinct and easily understood certificate be given; also that the word Clydesdale or Shire, or an abbreviation thereof, be printed after the numbers of the different horses occurring in the pedigree, and that Scotch and Canadian Clydesdale and English and Canadian Shire numbers be used in the pedigrees." The present standard of the Clydesdale stud book itself is equal to that of the present standard of the American book. Mr. Wade is to be Editor and Manager of the stud book, and Messrs. W. Smith, Columbus; W. Rennie, Toronto; H. Jeffrey, Whitby; G. Moore, Waterloo; C. Drury, Crown Hill, and J. C. Snell have been appointed a committee to propose a set of rules and by-laws for the management of the Association and its officers. Non-members will be charged \$3.00 for each registration, and members \$2.00, and a fee of \$1.00 is to be charged for each pedigree kept in "Office Record," that is, the pedigree of those at present not up to the Clydesdale standard of four and five crosses for mares and stallions respectively. The pedigrees of horses imported to Canada previous to May 31st, 1886, and recorded in the Scotch stud book shall be recorded in the Dominion Clydesdale stud book, up to 31st May, 1886, the date of the closing of the first volume.

**Very Successful Horse Breeding.**—Some twenty years ago when Mr. Daniel Campbell, a bachelor horse fancier, whose name is familiar to many in horse circles throughout Ontario, came into possession of the homestead—a one hundred acre farm, half a mile off the gravel road leading from Bradford, he also came into possession of a grand mare, which took many prizes as a general purpose mare. This mare mated three years in succession with a very fine coach horse, Toronto Exhibition, which resulted in his raising a stallion and two mares which have probably made a wider reputation for themselves and their offspring than any other family of horses in Canada. One of these mares, Fanny, has taken no fewer than eight first Provincial prizes, and with a sister took first as carriage team. Fanny was then mated with the well known road horse, Erin Chief. The first colt took three first Provincial prizes, and first at all the locals, but when rising 3 years he was unfortunately lost. Similarly two more stallions were produced by the mare, which have also taken Provincial prizes, and one of which moves at a 2:50 gait without any special training. The other mare referred to, a full sister, has also taken Provincial prizes, and has produced a stallion by the Imp. coach horse Lord Derby, which has taken three firsts at the Provincial, and also at the Industrial. Mr. Campbell has two stallions from each of these Toronto Exhibition mares that would be hard to beat, two of them by Erin Chief,

one by Derby and the fourth a Highland Boy. The prizes taken by Mr. Campbell at the local shows through the counties of York and Simcoe are so numerous, that the directors of any of these would feel under a cloud if "Darline" and his mares did not put in an appearance. To a comfortable stable Mr. Campbell adds the equipment of an attentive and obliging groom, who loves to see genuine horse fanciers put in an appearance. A LAVER OF GOOD STOCK.

Curing Hay by Using a Tedder.—In but few of their operations do the majority of farmers show so much of infatuation as in curing hay. In nine cases out of ten it is allowed to stand too long before being cut, which transforms its juicy and succulent properties into what is little better than straw. Indeed stock will walk away from old cut hay to eat out straw that has been cut a little green. The farmer says the hay is "too green to commence," forgetting that, do his best, haying time will last full three weeks, by which time what is last cut will be in a measure useless. But a graver mistake even is made in the mode of curing. Nearly all the hay crop of Canada is cured by the sun alone, when at the same time the wind should do the greater part of the work. Hay cured only with the sun is much browned, while that cured mainly by the agency of the wind is green and nutritious. It is impossible however to get hay cured by the wind without using a hay tedder, which will do more and far better work than ten men in turning and airing newly cut hay. We know of no other implement in use on the farm which will prove a better investment, and because that its value is but little known in this country compared with that of many farm implements in use, we counsel our farmers to invest in one, feeling quite sure that where the implement is properly made the purchasers will not be disappointed. We have already in these columns called attention to the great utility of the tedder, and also gave our own experience with one that we purchased last summer. Our attention has just been called to the simplicity in make of that constructed by Messrs. J. O. Wisner, Son & Co., of Brantford, Ont., which is highly spoken of by those who have used it in many parts of Canada. A principal point of excellence is, that each crank working a fork is independent, so that in case of accident, should a crank be broken it is easily replaced. There is also a spring on the fork (the only one in use), which reduces the tendency to break to a minimum. We think we are safe in saying that anyone having fifty acres of hay to cut will save the price in one year. Those intending to try them should secure one in good time, as the whole number of them manufactured as yet in Ontario, would not give two to each township in one year.

Table of Contents.

Table with 2 columns: Section Name and Page Number. Includes sections like STOCK DEPARTMENT, VETERINARY DEPARTMENT, FARM DEPARTMENT, DAIRY DEPARTMENT, POULTRY DEPARTMENT, APIARY DEPARTMENT, and HORTICULTURAL DEPARTMENT.

Table with 2 columns: Section Name and Page Number. Includes HOME DEPARTMENT, MISCELLANEOUS, and Jottings.

New Advertisements.

Table listing various advertisements and their page numbers, including items like Trusses, Foreman Wanted, Hay Rake, and various notices.

Stock Notes.

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

Horsos.

Mr. H. H. Hurd, Hamilton, Ont., has sold two Canadian bred Clyde mares in the recent past, to Mr. C. Ricketts, near Paris, Ont., for \$700. Mr. D. G. Hammer, of Mount Vernon, Ont., has sold the half bred Percheron stallion, sired by imp. Dauntless, and advertised in last issue of the Journal, to J. Finlay, of Pelee Island, Ont. Mr. A. J. White of Pembroke, Ont., has purchased the splendid Clyde stallion Peter the Great, from R. Benth & Co., of Bowmanville, Ont., for the sum of \$2,500.

We regret very much to learn that Messrs. Minor & W. Palmer, of Yarmouth, Ont., have lost their heavy draught stallion Better Times. It is supposed the horse became cast in the stall, and ruptured himself while endeavoring to get up. A post mortem revealed a slight rupture of the stomach. Messrs. Minor & Palmer purchased Better Times at Clinton about three years ago, for \$2,050, but so serviceable had he proved himself that he was valued of late at \$4,000. About three years ago Mr. Minor lost another horse, Warlock, valued at \$1,000.

Messrs. Robert Benth & Co., of Bowmanville, Ont., have recently sold Peter the Great (1884) to Mr. A. T. White, Pembroke, Ont., which will doubtless prove a valuable acquisition in the section where he is owned, as he is a horse of much promise. They have also sold Pride of Perth (2130) to Mr. John Bell, of I. Amaranos Co. York. He was sired by Bucks All (510), he by Prince of Wales (671), dam Kate (1711), by Lopsman (297). His late owners consider him one of the best horses in the Dominion, an opinion which our own judgment will endorse.

Mr. T. D. Hodgson, of Canada, has imported, through Messrs. Withers & Co., London, England, the bay stallion Newcourt (Penury), foaled 1883, by The Miser, son of Hermit and La Belle Helene, by St. Albans, dam Princess Charles, by Prince Charlie, second dam Mainbatch, by Mainstone, son of King Tom; third dam Alice Maud, by Arthur Wellesley; fourth dam Royalty, by Bay Middleton; fifth dam Hayden, by Tom Boy; sixth dam Rockana, by Velupede, out of Miss Garforth, by Malton, &c. Newcourt arrived at his new home early in April.

The sale of Shorthorns and Clyde horses held by Mr. Boucher at Sutton West, formerly Georgina, on the banks of Lake Simcoe, on the 24th ult., was some indication of a revival in prices. Several grade cows sold at between \$50 and \$75, while the thoroughbreds went up to \$150, and nearly all of them topped the century. The Clydes sold well for Province-breds, one mare reaching \$405, and a yearling going for \$225, while a half-bred team fetched \$490. The principal bidders on the thoroughbred stock were A. Johnson, of Greenwood; Simon Beattie, of Markham; R. Miller, of Brougham; Dr. F. C. Sibbald, T. C. Patterson, etc.

Mr. Arthur Johnson, of Greenwood, Ont., reports the following sales of thoroughbred stock, since last report: To Messrs. McDonald, Whitfield & Michael, of Ethel, Co. Huron, one imp. three year-old Clyde-dale stallion to the Messrs. M. Hugh of Aylmer, Quebec, one pure-bred Shorthorn bull calf, to go to Manitoba, to Mr. L. B. Bann, of Zephyr, Ont. One pure-bred Shorthorn bull calf to Mr. G. F. Benson, of Cardinal, Ont., one imported two-year-old Shorthorn bull. Stock wintering well Grass coming fast, beautiful weather. Fall wheat all killed out. Some breeders complain of the demand for stock. They don't advertise. I have no reason to complain, though I have still a few of my very best imported bull calves left.

Francis Farchman, Epsom, Ont., writing from Glasgow, Scotland, April 17, states that he has purchased from Peter

Advertising Rates.

The rate for single insertion is 18c. per line, Nonpareil (12 lines make one inch); for three insertions, 15c. per line each insertion, for six insertions, 13c. per line each insertion; for one year, 10c. per line each insertion. Cards in 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 WEIS, Plattsville, Ont. ap-3

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-4

BARGAINS IN BULLS.

I have two nice red yearling Shorthorn bulls for sale at modest prices. J. C. SNYLL, Edmonton, Ont.

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 in their dams; well marked. Will all be sold at low price. 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. BURNHOUT, Hurford P. O., Brant Co. ap-2

BLUE-BLOODED BERKSHIRES.

BRED from first-class importations. A few young boars and sows, 4 months old. Orders booked for spring pigs to be shipped at 6 to 8 weeks old, single, or in pairs not akin. For particulars, enquire for record. We ship to order and guarantee all our stock. JOHN SNELL & SONS, Edmonton, Ont.

FOR SALE.

13 YOUNG BERKSHIRE PIGS, about three weeks old, bred from imported stock of the Sorby and Surel Stock. Grand good ones. Also TWO SOWS, 4 months old, of similar breeding. Fairly good. THOMAS SHAW, Woodburn, Ont. Co. Wentworth.

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.

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

SHORTHORN BULLS.

6 excellent young bulls, 8 months to year old, and a few young heifers. Come and see them, or write. Farm, 2 1/2 miles from station. J. N. D. PETTIT, Paris, Ont. fe-11



FOR DESTROYING TICKS AND VERMIN on Sheep Cattle and Horses, Leicestershire Tick and Vermin Destroyer is well worth the price, year, 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

**10 Shorthorn Bulls.  
25 Hereford Bulls.**

Good animals (and pedigrees) at reasonable prices.

F. W. STONE, GUELPH, CANADA.

**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.

**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.

RIOHARD GIBSON,  
DELAWARE, ONT.

**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.

**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. 26x, 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. SOATHERD,  
Secretary, Wyton, Ont.

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

**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.



**Stock Notes.**

Ferguson, Rock Cottage, Renfrew, Scotland, the following pure-bred horses: Sir Vernon (4926), brown, foaled 23d April, bred by John McWilliam, Kildrochat, Stony Kirk, Stroner; sire, Blue Ribbon (1961), vol. 5; dam, Maggie of Kildrochat (2760), vol. 6, by Merry Tom 536, vol. 1; grand dam, Maggie, by Young Clyde (944), vol. 1. My Lord 4692, brown, white face and legs, foaled May 9th, 1883, bred by John Kerr, Glengyre, Stranraer; sire, Blue Ribbon (1961), vol. 5, dam Lovely of Glengyre (4717), vol. 8, by Abbey Prince (2), vol. 1. Lochiel, vol. 9, bay, white strip on face, two white hind feet, foaled Apr. 16, 1883; sire, Waverley, vol. 5 (2104), dam Jess of Lochiel, bred by James Ferris, Upper Lochiel, by Craigievar, by Wallace (1344), vol. 2; grand dam Meg, by Lord Haddo 486, vol. 1. They sail on 29th April, landing at Montreal, and will be taken at once to Epsom, Ont.

Mr. W. C. Brown, of Meadowvale, Ont., writes: "I have been very much pleased with the JOURNAL this winter, not only because it is a first-class agricultural paper, but because after advertising my Cleveland Bay Coach stallion in the JOURNAL for a short time, it brought me communications from one end of the Dominion to the other, as well as from the States, and finally a buyer who gave me a very satisfactory price. My stock have wintered well, considering that they all have had a very severe attack of colt distemper, but all are now out of danger, except my best mare. The young Coach stallion King Fairfield will stand at the head of my stud the coming season. He and his dam were both awarded first in their classes at Provincial Exhibition, when held in Guelph, over Toronto winners, also first at all the local shows the same fall. As a one-year-old he was first whenever shown, as a two-year-old first at the Toronto Industrial, and at the Union Exhibition, of East York and at all the local shows. He is a light bay, mane, tail and points black, fine head, beautiful arched neck, short back, good loin, long quarter carried well out, clean throat and plump body. He stands 16 hands 1 1/2 inches high on beautiful limbs, and weighs 1,250 lbs.

**Shorthorns.**

Mr. M. Laporte, of Mildmay, Ont., has sold a pure-bred yearling Shorthorn bull to John W. Helwig, Neustadt, Ont.

Messrs. John Miller & Sons, Brougham, Ont., write: "We get a large number of enquiries from our advertisement with you, and have plenty to fill all demands for some time."

Mr. T. C. Patterson reports having sold out all his yearling Shorthorn bulls to Mr. A. Lucas, of Alvinston, Ont., who has taken them to his range in the Porcupine Hills, between Calgary and McLeod, N. W. T.

Mr. Joseph Watson, Greenbank, Ont., writes: "Stock doing well. Imp. bull Vice President weighed 1,880 lbs. at two years of age. Calves good and strong. I consider the JOURNAL the best paper for stockmen that I have ever met with."

Mr. Wm. Murray, of Chesterfield, Ont., writes: "I have sold imp. 5th Duke of Holker (4488) to John Dington, Esq. Stratford, and Duke of Colonel, a fine red yearling, to J. S. Smith, Esq., of Maple Lodge, and two better bred or better individually would require some search to find."

The Messrs. J. & W. Watt, of Salem, Ont., say to us that their stock are doing well, and that sales are very good. They also state that in reference to the bull Roger 882, they consider that rule iv distinctly settles all disputes in that pedigree, which traces back previous to 1846, going back to a cow imp. in 1817.

Mr. Wm. Templer, Jerseyville, Ont., writes: "I have purchased from Bow Park, the bull Waterloo Duke 16th. He was sired by Duke of Oxford 54th; sold to Luther Adams, of Iowa, for \$2,500. Dam, Waterloo Duchess 3rd, bred by H. Lovat, Wolverhampton, Eng. I purchased him to take the place of Earl of Goodness 13th, who has proved himself to be the best bull we ever owned."

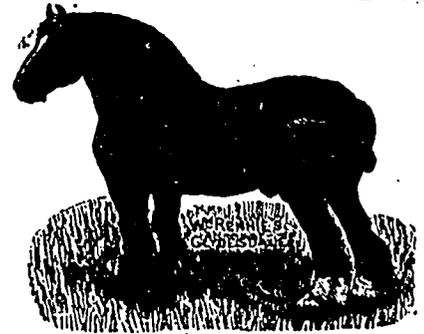
Messrs. Green Bros. report the following sales of cattle: Two yearling Hereford bull calves to the Lucas-Eastman ranche, Co. Porcupine Hills, Calgary, N. W. T.; a 3-year-old Shorthorn bull to Colonel Boulton, Coburg; the 2-year-old heifer Jewess and yearling heifer Venetia, to Mr. Geo. Ballachey, junr., Brantford, and the promising young bull Viking, out of imported Vain Duchess, to Mr. Henry Revell, of Ingersoll.

Mr. Geo. F. Platt, of Cainsville, has recently purchased a fine young dark roan yearling bull of great substance from Wm. Douglas, Caledonia, who breeds so many good ones. His name is Britannia's Duke 5th, got by the 19th Duke of "iklevington - 3463 - dam Britannia 27th, by Loudon Duke 1, h 20274, and dam Britannia 24th, by Lord Languish (3527) 17569, 3rd dam, Britannia 23rd, by King of the Ocean (1619) 8465, etc. The services of such a bull are much needed in the vicinity. Mr. P. has also bought from Henry Hammond, of Brantford township, a Shorthorn heifer, which has since dropped a fine red cow calf.

The private catalogue of "The Glen Stock Farm Herd," of Shorthorns and Hereford cattle belonging to Green Bros., of Innerkip, Oxford Co., Ont., is before us. It contains the pedigrees of 22 Shorthorn females, in which the blood of the Sittyston, Uppermill and Kinellar herds runs freely, all either imported or bred from recently imported stock, and the pedigrees of which run back in some instances twenty generations. The catalogue contains six young bulls, of which five were bred at "The Glen." The now famous Earl of Mar, twice champion of the Dominion, comes first. He is sired by Bentinck (4278), and the next five top crosses are by pure Cruikshank bulls. The five bulls already referred to are all by the Earl of Mar. There are six Hereford females, five of which are imported, and from such herds as those of B'akemere House and Brierly. Imported Cronhill 8th heads the list of the five bulls. In 1884, this bull when a yearling, won first in his class and silver medal for the best Hereford bull any age, at the Industrial, Toronto 1884, and first in his class and Dominion silver medal for the best Hereford bull any age, at the Dominion, and 40th Provincial Exhibition, in London 1885.

**WANTED.**

AN EXPERIENCED FARM MANAGER for the East-wood Estate, with good recommendations. Only those having some knowledge of Shorthorns need apply. Single man, or married, without children. Apply to T. C. PATTERSON, Postmaster, Toronto.



**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.

**COLDSTREAM STOCK FARM,**

Whitby, Ontario.

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

**Clydesdale Stallions**

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



ALSO A FEW CHOICE SHETLANDS. Prices to suit the times.

Address, JEFFREY BROS., Whitby, Ont.

**IMPORTED CLYDESDALES**

For Sale For Sale



ON REASONABLE TERMS.

18 IMPORTED registered Clydesdale Stallions and Mares, among which are a number of prize-winners at the leading shows of Scotland and Canada. For further particulars, send for catalogue, to

ROBERT BEITH & CO.,  
BOWMANVILLE, ONT.

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

RESIDENCE ONE MILE FROM CLAREMONT STATION.

Importers of Registered

**CLYDESDALE**

Stallions and Mares.

We have constantly on hand and FOR SALE

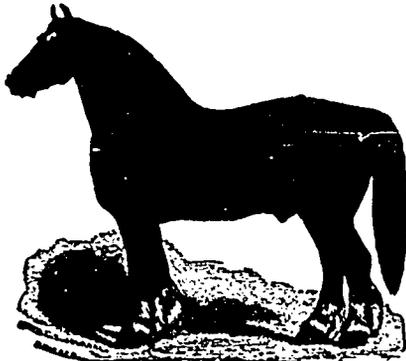


At reasonable terms, a number of superior Clydesdale stallions and mares, registered, and which have been selected from the most successful prize winners at the leading shows in Scotland. Also a few choice

**SHETLAND PONIES**

Correspondence solicited, and visitors always welcome. CLAREMONT, Feb, 17th, 1886.

**FOR SALE.**



**CLYDESDALES.**—1 stallion, 3 years, imported; 1 stallion, 2 years, imported; 1 filly, 2 years, imported; 2 fillies, 3 years, imported; 2 fillies, 3 years, Canadian bred, four crosses; 11 fillies, 2 years, Canadian bred, three to five crosses, and two fillies, one year, Canadian bred. Several of them prize-winners.  
**SHROPSHIRE SHEEP.**—11 rams, one and two years old, bred from imported stock, and very choice.  
 H. H. HURD, Oakwood Farm, Hamilton, Ont.

**FOR SALE.  
 FOUR**

**Imported Clyde Stallions**

Rising three years old.

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



**RICHARD HICKINGBOTTOM & BROS.,**  
 WHITBY or BALSAM P. O., ONT. dec-6

**GERMAN MILLS** Importing and Breeding Establishment of



**Percheron Horses and Shorthorn Cattle.**

**A CHOICE LOT OF IMPORTED STALLIONS ON A HAND** and for sale as low as can be bought from any importers, quality and pedigree considered. Prize-winners at all the leading fairs in Ontario, first prize and sweepstakes at the Provincial 1883-84. Also a choice lot of half and three-quarter bred stallions, different ages. Also a few superior young bulls and heifers from our show cows. Person inspection invited. Railway station at German Mills, on Galt branch Grand Trunk Railway.

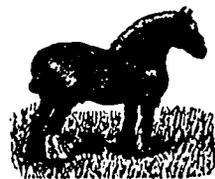
**T. & A. B. SNIDER,**  
 German Mills P. O., Waterloo County, Ontario.

**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.**

**Stock Notes.**

The following sales have recently been made from the Bow Park herd of Shorthorns: To A. Barber, Avon, N. Y., Waterloo Duke 17, Butterfly's Duchess 6 and Countess of Goodness 24; W. Smith, Port Dover, Ont., Major; Wm. Templer, Jerseyville, Ont., Waterloo Duke 16; B. Sumner & Son, Woodstock, Ont., Imp. Viscount Oxford 9; W. Renton, Manitoba, Orpheus 20; N. P. Clarke, St. Cloud, Minn., Waterloo 45, imp. Belle Blanche and imp. Lady Underley Barrington; F. Merritt, Charlotte, Mich., Waterloo Duke 18, Roan Duchess 30 and Roan Duchess 33. There is still a number of useful young bulls on hand, which will be sold at moderate prices.

At the sale of Mr. J. F. Davis, of Glanworth, Ont., held on April 15th, the following prices were realized, which are quite encouraging considering the times. Duchess of Shisler, bought by G. Lindsay, St. Thomas, \$120; 2nd Duchess of Shisler, G. Lindsay, St. Thomas \$90; Duchess of Glanworth, M. Wallis, St. Thomas, \$140; Duchess of Mzurka, M. Wallis, St. Thomas, \$165; Duchess of Darlington, C. Saywell, Co. of Elgin, \$122; Duchess of Moundale, Cummings Bros., Lambeth \$180; Cleopatra with heifer calf, Holmes, Moore & Courtwright, Inwood Lambton Co., \$175; two yearling heifers, G. G. Chapman, Co. Elgin, \$185; one grade yearling heifer, C. Saywell, \$66.

Mr. John J. Braven, of Byng, Ont., has purchased another Shorthorn cow and heifer calf, from Mr. V. Ficht, Oriel, also a bull calf. The bull was sired by Hilpe Duke—455—Dam, Polyanthus, imported by Mr. F. W. Stone. Hilpe Duke—455—, was sired by 3rd Duke of Oneida 11708, his dam Hilpe Duchess 2nd, by Joe of Airdrie (10288), 3rd Duke of Oneida, bred by Messrs. Walcott & Campbell, was sold to Hon. M. H. Cochrane, for \$14,000. Hilpe Duchess was a pure Bates cow. The cow was got by Hilpe Duke, and from the dam Duchess of Aslymer 6th, by Grand Duke of Thorndale 2nd (31298). The Shorthorn calves in Mr. Braven's herd are by Louis Strathallan, from the old Rose of Strathallan. They are all doing well. Mr. Braven remarks that he would willingly give three times the price of the JOURNAL to have it come oftener.

**EDITOR CANADIAN LIVE-STOCK JOURNAL.**

Sir,—I see it stated in the April number of the JOURNAL, that Mr. Huff, of Dawn, had bought a Shorthorn cow from Frank Shore, Esq., that has taken more prizes than any other cow of her age in Middlesex. Permit me to ask for a statement of this cow's success at the fairs, as I flatter myself that my 1st Princess of Evergreen has been as successful as any other cow living, or dead for that matter, for the opportunities she has had, both at the fairs and as a breeder, and her stock has been both successful and have sold well. On seeing a statement of Mr. Huff's cow's career, I may feel free to give a statement of what mine has done. Mine has never been fed as Mr. Shore feeds his, as I am radically opposed to such liberal feeding. I go in for offspring that will go on in an ordinary feeder's hands, while my mate that friend Shore is the best feeder in Canada. E. J. YORKE.

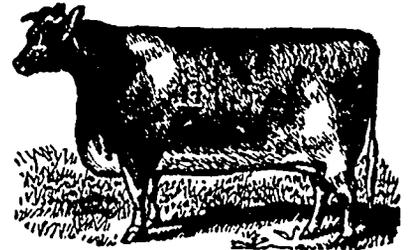
**WILLOW LODGE SALE OF SHORTHORNS.**—Mr. J. C. Snell's sale of Shorthorns at Willow Lodge, Edmonton, Ont., which took place on the 7th of April, notwithstanding the very heavy snowstorm which prevailed on the 6th, and which so interfered with railway travel as to prevent many from attending who intended to be present, was yet a pronounced success. A good company of earnest, enterprising men were present, and every animal in the catalogue, we are assured by Mr. Snell, was bona fide sold, and at fairly satisfactory prices. Mr. Snell was highly complimented by many breeders on the condition in which the cattle were brought out, not a single one being out of condition, and all looking the perfection of health and thriftiness, without anything being overdone. The large number of calves, which were greatly admired, and the fact of nearly all of the cows being in calf again, made the prospect very satisfactory to those desirous of purchasing. The sale was admirably conducted in every particular, and we believe both buyer and seller were well satisfied with the result. The following is a correct report of the prices, and the address of purchasers. *Cows and Heifers*—Rose of Aberdeen 3d and b.c., David Rae, Speedside, \$425; Mina of Kinellar, John Ackroyd & Son, Highfield, \$350; Cleopatra, John Cowieson, Queensville, \$240; Canadian Duchess of Gloster 11th and b.c., A. R. Gordon, Cooksville, \$235; Canadian Duchess of Gloster 5th and c.c., David Simmons, Forest, \$25; Rosa Lenton, William Wilson, Brampton, \$200; Magnet and c.c., Thomas Graham, Ottawa, \$265; Waterloo Seraphina and b.c., A. F. Jordan, \$230; Seraphina of Waterloo, W. M. Bell & Son, Springford, \$200; Wave Queen, H. Parker, Durham, \$195; Wave Echo, 6 mos., W. Wilson, Brampton, \$200; Faith and c.c., Thomas Anderson, Dunganon, \$280; Mildred, D. K. High, Jordan, \$300; Grand Duchess of Solway, Thos. Graham, Ottawa, \$265; Knolly Rose 5th, J. H. Ferguson, Brampton, \$210. *Bracelet*, J. and F. Gardner, Britannia, \$135; Waterloo Blanche, H. Plumstell, Clinton, \$125; Seraphina of Waterloo, J. & F. Gardner, Britannia, \$195; Seraphina of Whitehall and c.c., Sharman & Sharman, Souris, Man., \$270; Knightly Blanche, Sharman & Sharman, Souris, Man., \$245; Fancy Roan and b.c., C. Hostetter, New Hamburg, \$170; Nellie Ray and c.c., H. Plumstell, Clinton, \$200; Lady Bell and c.c., R. Knight, Milton, \$220; Cumberland Blanche and b.c., R. Knight, Milton, \$175; Maud and b.c., Wm. McClure, Elder's Mills, \$200; Blanche and c.c., J. & F. Gardner, Britannia, \$220; 2nd Seraphina of Whitehall, W. Wilson, Brampton, \$145; Duchess of Solway and b.c., J. H. Ferguson, Brampton, \$165. *Bulls*—Royal Irwin, Thomas Graham, Ottawa, \$310; Chancellor, C. Hostetter, New Hamburg, \$150; Waterloo Warrior, R. A. Kirby, Guelph, \$220; Earl of Montrose, B. Watson, Edmonton, \$125; Grand Master, Sharman & Sharman, Souris, Man., \$290; Laird of Kinellar, James Crerar, Shakespeare, \$125; Earl of Roseberry, John Gowanlock, Saugeen, \$105; Viceroy, Wm. McClure; Elder's Mills, \$125. Waterloo Seraph. 6 mos., Sharman & Sharman, Souris, Man., \$110. Total, \$7795; average, \$208. Females, average, \$219; bulls, \$162.

**NOTE.**—Several calves in catalogue were sold with their dams, which explains apparent discrepancy between number advertised and number reported sold.

**Holsteins.**

We are pleased to notice that Mr. R. S. Stevenson, Ancaster, Ont., has recently purchased the Holstein Bull, Gladstone Jr.,

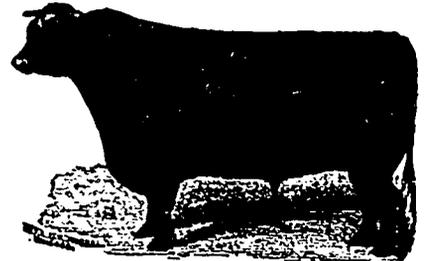
**ARTHUR JOHNSTON,**  
 Greenwood, Ont., Can.



**18 Aberdeenshire Shorthorn Bulls**  
 (VERY FINE)

and heifers landed at Greenwood on Dec. 18. Twelve imported and six home-bred bulls for sale, besides cows and heifers, imported and home-bred. Send for Catalogues. I have also imported Clydesdale stallions and mares for sale. Claremont Station on the C. P. R., and Pickering, on the G. T. R. Come and see me.

**MESSRS. H. & I. GROFF,**  
 Elmira, Ont., Can.,



**Importers and Breeders of  
 SHORTHORN CATTLE.**

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 Mantilna, Lady Day, Roan Duchess and Princess strain. Young stock always on hand for sale. Correspondence solicited.

**W. G. PETTIT,**  
 BURLINGTON, ONT., CANADA.



**BREEDER OF SHORTHORNS,**

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—  
**SHEEP.**—15 well-bred Leicester ewes, in lamb, 1 and 2 years old, for sale.

**JOHN DRYDEN,**



**BROOKLIN, ONT.**

**BREEDER AND IMPORTER OF**

**Shorthorns, Clydesdales, and Shropshire Sheep.**

Last importation of bulls and heifers arrived in Dec., 1885. Send for Catalogue.

**Stock Notes.**

No. 4269, H. H. B. This very promising bull was sired by Gladstone, whose dam Hottinga has a milk record of 79½ lbs. of milk in one day.

A. C. Hallman & Co., New Dundee, Ont., April 17th, writes us as follows: "Never in the age of Holsteins in Canada was the outlook brighter than at present. We have sold since fall 9 head: two to Alex. Kennedy, Ayr, Ont.; 3 year old bull to Daniel Zehr, Tavistock, and 1 same age to Menna Boshart, Crosshill; sold pair calves (bull and heifer) to Louis Lint, Kohler, Ont., and 2 year old bull to Isaac Hallman, Listowell. We have now 5 calves dropped, 5 males and 1 female. Our heifer, which took first prize in yearlings at London and Toronto, has given birth to a fine bull calf, and is milking 50 lbs. per day. We have added a fresh lot of Holsteins to our herd now in quarantine. Selections made from the noted herds of Smiths, Powell & Lamb, Syracuse, and T. G. Yoemans & Sons, Walworth, N. Y., whose reputation for first-class stock, milk and butter records stands second to none in America. Our fresh importation has a large percentage of Aaggie and Netherland blood, especially the calves."

**Aberdeen-Angus.**

Mr. James A. Cochrane, of Hillhurst, P. Q., has purchased the bull Jurat 4773, from Mr. C. Stephenson, Balliol College Farm, New-castle-on-Tyne to take the place of Paris, which has rendered such good service in Mr. Cochrane's Aberdeen Angus herd. His dam, Julietta 5324, of the Julia of Portlethen family, is one of the best cows in Mr. Stephenson's herd, and the sire Gight 3rd 2787, is from one of the best branches of the Pride family, by a Princess sire.

Further details of the recent purchase of Messrs. Hay & Paton, of New Lowell, Ont., of Aberdeen-Angus Polls, will appear in next issue.

The Geary Bros. Importing Company, in March last purchased the entire herd of Aberdeen Angus-Polls, some 58 animals, of Mr. John Hannay, Gavenwood, Banff, for the Keilor Lodge Stock Farm, at Bothwell, Ont. It will be remembered that this herd was collected originally by Mr. Hannay for Lord Fife. Unusually successful in the northern show rings, its excellence drew forth the commendations of the late Wm. McCombie, the prince of Aberdeen Angus breeders. It comprises specimens of the Vine, Lady Ida, Pride of Aberdeen, Victoria, Corskie, Fyvie Flower, Georgina, Ruth, Kinnochtry, Baroness and Princess, Cortalny Delia and other families. Some of these are noted prize-winners as Dryar 5675 and Favnria 7131. At the sale held by Mr. Hannay in 1878, Young Vicount 736, a first prize-winner at the Highland and Agricultural Society's Show, at Glasgow in 1875, brought 225 guineas. Mr. Hannay has also been the breeder of Palmerston 374, Gainsboro 596, St. Clair 1160, Sir Wilfred 1157, Warrior 1291, Blackbird and 3024, Erica 6th 2023 and others noted in the annals of show-ring lore. The cow Princess 7th 3296, one of this contingent, cost Mr. Hannay £200. The Messrs. Geary are to be congratulated on their securing so excellent a herd, free as it is from weeds and possessing so many individuals of high excellence.

**Ayrshires.**

The Ayrshire herd of Mr. W. M. Smith, of Fairfield Plains, Ont., now numbers 11 head, of which 4 females and 1 bull calf are descended from the well known cow Gurta 4th, sold by Thos Guy, of Oshawa, to Messrs. Coldren & Lee, Iowa. Two years ago Mr. Smith bought three heifers and a sucking calf, and in the fall of same year at the Ottawa show they bought the first prize bull calf from Mr. Jas. Drummond, of Montreal.

**Galloways.**

Mr. H. Sorby, Gourack, Ont., has made the following sales since last report from the Alton Hall Herds: Galloways—To W. Saxby, Illinois, 2 imp. cows and 2 heifers. Berkshires.—To J. S. McDonald, Chesley, Ont., 1 boar; C. A. Keil, Chatham, Ont., 1 boar; John Meyer, Kossuth, Ont., 1 boar; Geo. Green, Fairview, 1 imp. Berkshire sow. To the Galloway herd there have been the following additions: The grand imp. Galloway cow Nancy Lee and 4186, has an extra fine bull calf, and the imp. cow Cheerful (422), a very fine bull calf. Two of the imp. Berkshire sows have extra fine litters.

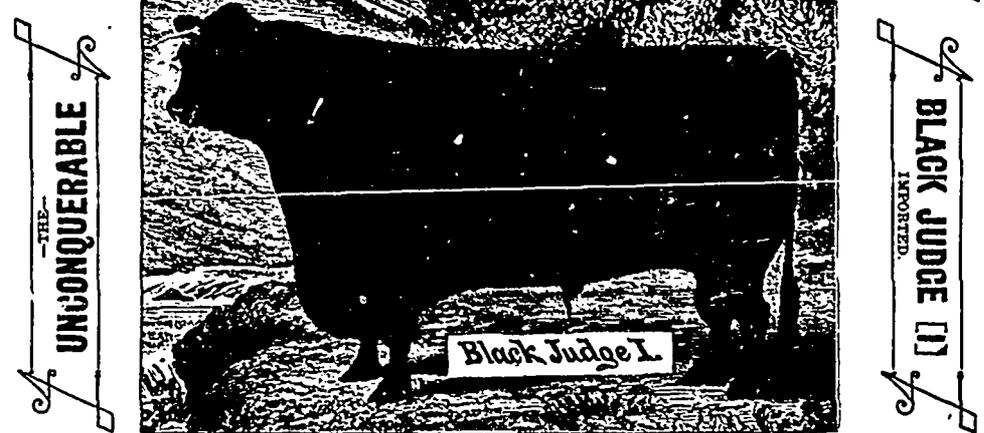
**Herefords.**

The private catalogue of The Park herd of Herefords, owned by Frank A. Fleming, Weston, Ont., is to hand. It contains a list of 47 females and 12 bulls, of which six are sold, and no doubt a number of others have come to hand since. Of the females 37 are imported, and were bred by such men as Wm. Taylor, Showle Court; John Hill, Felhampton Court; John Murton, Tanington; G. T. Richards, Becton, Shrewsbury; E. Grasett, Westmore Crown Arms, Salop; J. P. Apperley, Faunhope; R. T. Griffiths, Sarnesfield; A. R. Boughton, Knight, Downton Castle, Ludlow; Thos. Fenn, Ludlow, and Thos. Rogers, Leominster. A number were bred by the late C. C. Brydges, Shanty Bay, and all are from imported stock. No less than 26 of the females were imported in 1885, of which the famous Miss Broady 2385, takes the lead. She is a famous Royal winner, and was reported in the spring of 1885 to be the best Hereford cow in England. Corporal 4175, stands at the head of the herd. Most of the young bulls on hand are by Earl of Downton 12797, (8566). The Park Herd, though one of the youngest, is now one of the largest Hereford herds in Ontario.

**Poultry.**

Mr. F. W. Hodson, of Brooklin, Ont., writes us that his stock generally have come through the winter well, including a choice lot of fowls. He has sold all his old stock of Bronze Turkeys, and has just imported from a noted breeder in Indiana, U.S.A., a very fine breeding pen of Mammoth Bronze Turkeys; they are large and very fine in color. We would also in this connection call the attention of our readers to the fact that Mr. Hodson is the Dominion agent for Dana's celebrated ear labels, for marking cattle, sheep and swine. To the excellence of these for their purpose we can bear cheerful testimony, as we have ourselves used them. See advertisement in directory.

**CANADIAN HOME OF THE ABERDEEN-ANGUS POLL**



First Prize Winner, Toronto Industrial, 1883, 1884 and 1885. Grand Dominion Premium Medal and Diploma, London Provincial, 1885. Service Fee, \$100.

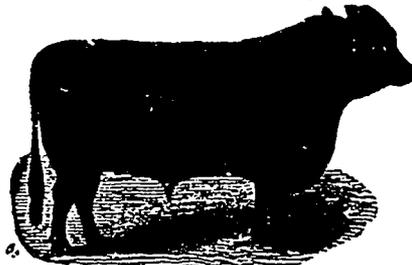
**KINNOUL PARK STOCK FARM, NEW LOWELL, ONTARIO,**

**HAY & PATON, Proprietors.**

**J. G. DAVIDSON, Manager.**

WE have just landed safely at New Lowell, our first consignment of Aberdeen Polls, and on the 27th of June we shall have released from the Point Edward Quarantine the entire herd of Aberdeen-Angus Cattle, lately the property of Messrs. H. Walker & Sons, Walkerville, Ont. The lot includes no less than 17 imported four-year-old cows, for which the Messrs. Walker, in 1883, paid the highest prices then ruling in Scotland. They are suckling a superb lot of bull and heifer calves, almost without exception after that grand Pride and Blackbird sire Waterside Standard (imp.) 3374. We are now able to supply anything in the Aberdeen Angus line that can in reason be desired, and we may also add that we are in a position to sell at prices within the reach of all. We suppose no one will deny that the day of fancy prices has gone by, never to return, and we do not hesitate to acknowledge that we are glad that such is the case. In making our recent purchases we have kept this view of the matter steadily before us, and we have therefore the greatest confidence in asking intending purchasers to send for our illustrated catalogue and give us a call before investing. Our stock can be seen any day on appointment with our manager, J. G. Davidson.

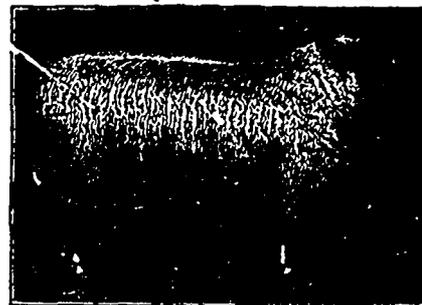
**KEILLOR LODGE STOCK FARM,**  
THE GEARY BROS. CO'Y, Proprietors.



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.**

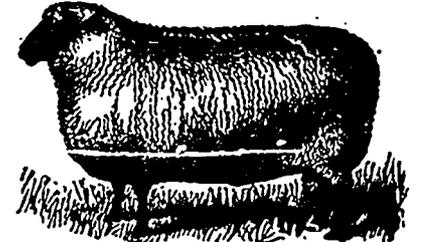
**ALTON HALL STOCK FARM.**  
H. SORBY, Proprietor.



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.  
**H. SORBY, Proprietor,**  
Gourack, Ont.

**COLONUS STOCK FARM.**



**FOR SALE.**  
**SHEARLING OXFORD DOWN RAMS**  
and Ram Lambs, good ones; also some very choice young  
**SHORTHORN BULLS.**

Oxford, Wild Eyes, Waterloo, Sally, Darlington and Princess families. Imported 6th Duke of Holker (44687) in service.  
**WM. MURRAY,**  
Bright Station, G. T. R. my-y Chesterfield, Ont.

**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.**

**HILLHURST HERDS**

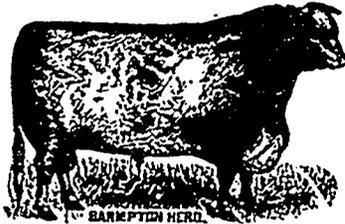


**HEREFORD,  
ABERDEEN-ANGUS,  
SHORTHORN  
—AND—  
JERSEY CATTLE.**



**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 Kingston 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.**

**THE TUSHINGHAM HEREFORDS**



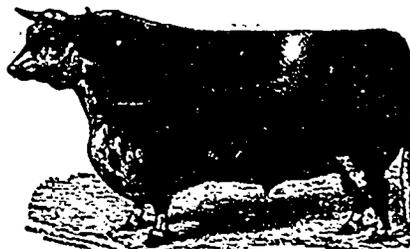
The herd embraces the Lady Wintercott and Formosa strains amongst others, and is headed by Tushingham (8127), by Charity 3rd (6350), by The Grove 3rd, (5051). 19 calves bred from 7 cows and heifers in two years. Young Stock for sale.

**J. W. M. VERNON,**

Tushingham House.

Waterville, P. Q.

**The Park Herd of Herefords,**



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

**F. A. FLEMING,**

Weston, Co. York, Ont

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

**LOWLANDS HERD**



A CHOICE LOT OF  
**YOUNG HEREFORD BULLS**  
FOR SALE.

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

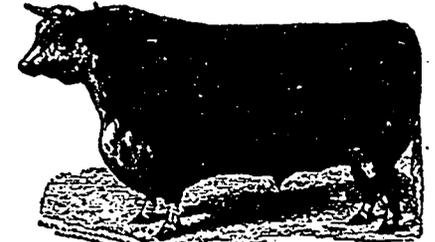
Also a fine lot of imported

Welsh and Shetland Ponies for Sale.

**E. W. JUDAH.**

"Lowlands," HILLHURST, P. Q.

**POINT CARDINAL HERDS.**



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Selected with great care from the celebrated herds in England  
IMPORTED COWS AND YOUNG BULLS 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.

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**Shorthorn Cattle and Berkshire Hogs**

Herd headed by the Bates bull Duke of Rugby, and bred with strict reference to individual merit and milking qualities. Animals recorded in both American and B. A. herd books.

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

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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.

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Delaware.

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**LOOK SHARP**—Eggs from high-scoring prize winners—**L. P. Rocks, Black and Mottled Javas**—score 95. A few birds to spare, cheap. **Javas** are the coming fowl, sure.  
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ap-3

**EGGS FOR HATCHING**—Purebred Light Brahmas and White Leghorns, \$2 per 13, or 25 for \$5. A good hatch guaranteed or eggs duplicated. Address, **JOHN BEATTIE, Stratford, Ont.** Birds, \$1 each  
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Eggs for hatching from the following yards:

**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. Agent for the **NEW MODEL INCUBATOR**, which has proved a complete success.

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I am breeding this year from ten grand yards, headed by sire of cockerel scoring 97 1/2 points at Owen Sound show and 96 1/2 at Guelph. The highest scoring Plymouth Rock cockerel ever bred. I challenge any breeder to show a record equal to that of Pilgrim strain at Canadian shows. Eggs for hatching, safely packed, \$3 for 13, \$5 for 26. Satisfaction guaranteed. Send stamp for answer.

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—FROM—

Thoroughbred Wyandottes, R. C. B. Leghorns, Langshan and Light Brahma fowls. A better stock in Canada. Send post card for illustrated catalogue and price list, 1886.

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**TWO YOUNG SHORTHORN BULLS FOR SALE**

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Now is the time to secure  
**LIGHT BRAHMAS**  
(McKay's 1st Prize Strain)  
EGGS, \$1 per setting of 13  
Eggs carefully packed. Satisfaction guaranteed.  
FOR SALE few first-class COCKERELS at \$1 each. Cash to accompany orders.



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**EGGS PER SETTING:**

Wyandottes, per setting, \$4.00  
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Rose Comb Brown Leghorns, 3.00  
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Single Comb White Leghorns, 2.50

Stock At. Eight pairs won seven prizes at the Toronto Poultry Show. J. K. Felch, judge. Also winners of prizes at Collingwood and Barrie, the only shows at which I exhibited.

Send for circular. Visitors always welcome.

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**EXCHANGE** For Thorough-bred Heifer Calf or best offer, one pair Peacocks, eighteen Brown Leghorn Hens, five Black Spanish, fine breeding pen (10) Langshans—imported. All No. 1 stock. Want room. Don't forget that I **downed** the record with my **B. D. Langshans** and **Brahmas**. Sixteen birds, unprecedented score 1528 1/2 points, by Becknel, of Buffalo. Speak quick. **R. H. TRIMBLE, "The Arcade," Napanee, Ont.**

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**RECORD AT STRATFORD, 1885,** by a competent and disinterested judge, A. Stevens, Esq., Mass., U. S.:

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

Yard No. 1 contains hens 95, 95, pullets 94, 93, 92, 90, mated with a magnificent and tried breeding cock, weighing 13 lbs. Yard No. 2 contains extra large and fine hens and pullets, with clean yellow legs and bills, mated with a choice cockerel scoring 93 points.

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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Eggs, \$2.50 per 13; \$4 per 26. May be selected from different varieties if desired. Early orders by registered letter solicited. P. S. Duck eggs \$2 per 0 eggs.

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2 Ellmere Sows  
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Correspondence invited. my-1

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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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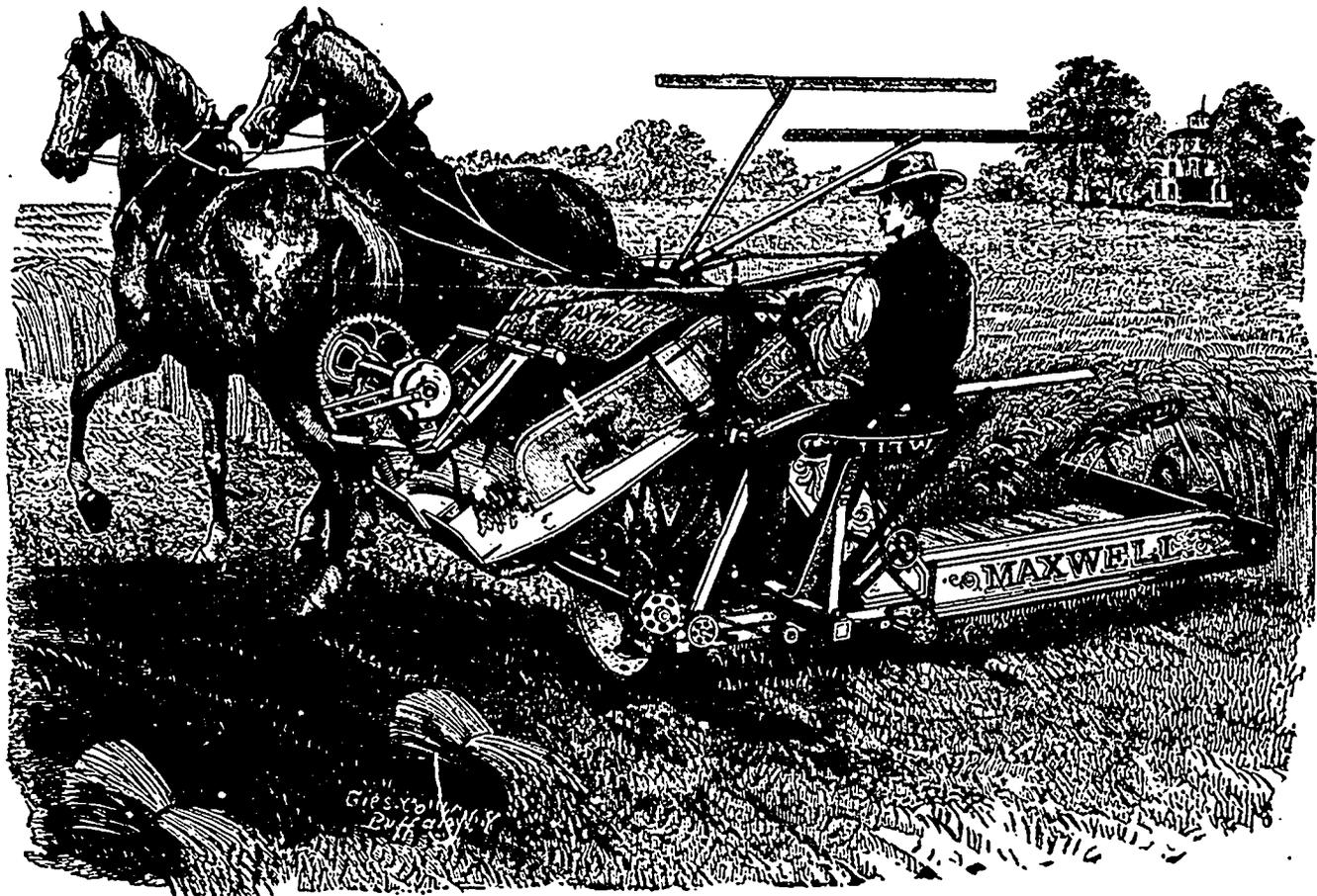
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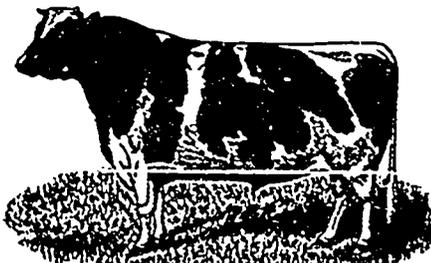
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**HOLSTEIN BULL SIR ARCHIBALD** No 3045 H H B  
The property of H. M. Williams, of the Hallowell Stock Farm.  
Dam, Krintje, with a milk record of 96½ lbs. per day, and  
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Sir Archibald won the sweepstakes silver medal at Toronto Industrial, 1-85 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 herdsman always on hand to show visitors the stock, and the stock-loving public are always welcome.

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Shorthorn and Jersey Cattle, Berkshire Swine,  
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Other Fowls, Scotch Collie Dogs, etc.

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**PRAIRIE AAGIE PRINCE**, H. F. H. B. No. 2, at head of herd. Dam, Prairie Flower, with five-year-old butter record of 20 lbs. 1 oz. per week. Sire, Royal Aagie, his dam milk record of 82½ lbs. per day.

We have just added a fresh importation of Holsteins to our already fine herd.

We took eight single prizes and bronze medals for herd on nine head at the Industrial, Toronto, in 1885.

Selections made from the finest herds and most noted milk and butter producing families in America, regardless of price. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto "Quality." Stock for sale. Visitors welcome.

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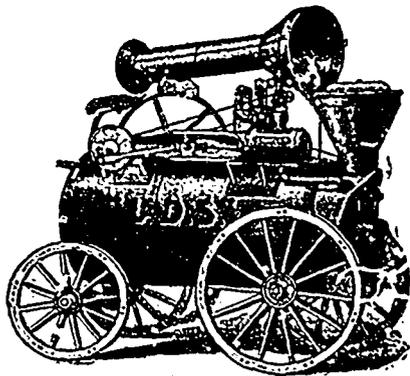
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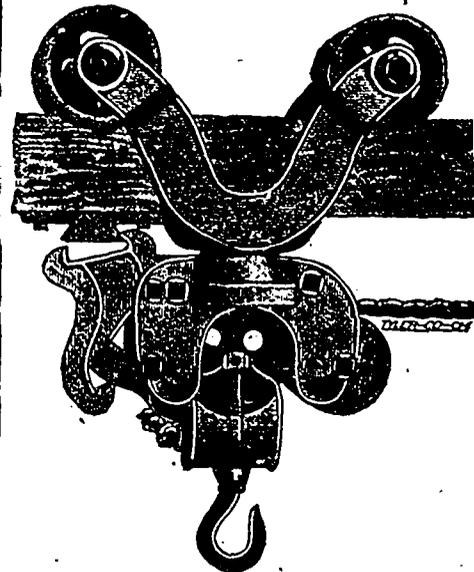
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It is provided with an adjustable stop, which holds it firmly in its position, parallel with the track. No other Swivel Carrier has this improvement.

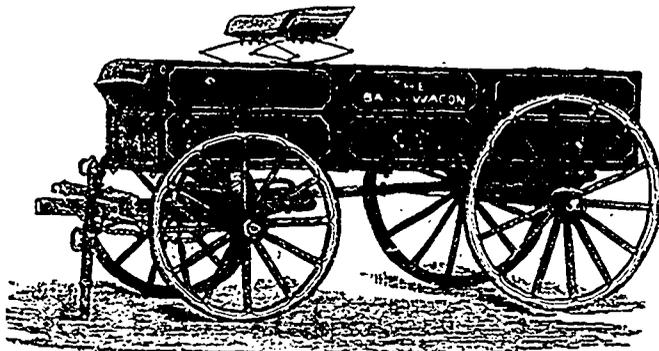
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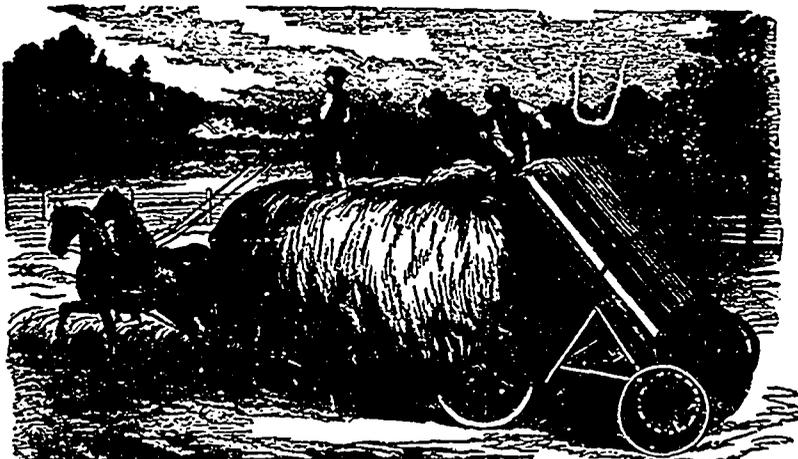
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Jan-7

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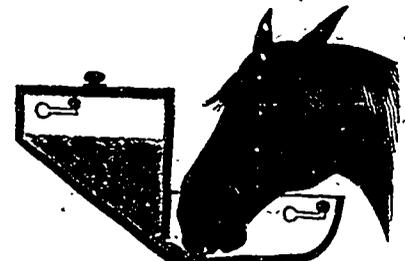
SPECIALTIES—Hay Loaders, Hay Tedders, Hay Forks and Carriers. HAMILTON, ONTARIO.



The wonderful success of our Hay Tools the past season has induced us to increase largely our out-put for 1886. The Foust Hay Loader has undoubtedly proven the best Hay and Grain Loader in the market. Our Loader for this season has still further improvements, suggested by last year's experience in the field, and we now offer it as the only perfect Loader made; with a boy to drive and one man to load, it will do the work of three men pitching on.

The Grand Rapids Tedder—In our search for the best tedder made in the United States, we selected the Grand Rapids, believing from its construction it was the most servicable and best machine in the market. and from the test of their working qualities in the past season, we are convinced that our judgment was correct, for with a horse, and a boy or girl to drive it will do the work of ten men, and more thoroughly.

## THE MAGIC PATENT FEED BOX.



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