

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
 - Pages damaged/
Pages endommagées
 - Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
 - Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
 - Pages detached/
Pages détachées
 - Showthrough/
Transparence
 - Quality of print varies/
Qualité inégale de l'impression
 - Continuous pagination/
Pagination continue
 - Includes index(es)/
Comprend un (des) index
- Title on header taken from:/
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
 - Caption of issue/
Titre de départ de la livraison
 - Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



GROUP OF HEREFORD BULLS.

Tushingham (8127) (19450), Lord Tushingham and Tushingham 4th. The property of Mr. J. W. M. Vernon, "Tushingham House," Waterville, P. Q.

The Three Lions of the Tushingham Hereford Herd.

At the Dominion Exhibition held at Sherbrooke, P. Q., in the autumn of 1886, Mr. J. W. M. Vernon, of Tushingham House, Waterville, P. Q., the owner of the Tushingham herd of Herefords, exhibited three bulls, two of them of his own breeding, and carried off three first prizes, one of these being a sweepstakes prize—the gold medal for the best bull on the ground, which was given to the lordly Tushingham (8127) 19450, whose portrait also appeared in the August number of the JOURNAL for 1886. Our artist was present on the grounds at the time, and sketched the three which are now presented to our readers as representative types of this magnificent beefing breed.

Tushingham (8127), 19450, was bred by Mr. Aaron Rogers, of The Rod, England, by Charity 3d, (6350) 9728, by the immortal The Grove 3d (5051), and out of the dam Morella 4th, vol. xii. p. 378 E. H. B., by the unconquerable Grateful (4622). This grand bull has recently been sold to Mr. J. L. Northrop, Westfield, N. Y., for the sum of \$5,000, the highest price ever paid for a Hereford in the Dominion, if not the highest ever paid in America. Mr. Vernon informs us that Mr. Northrop's attention was first called to him through a copy of the JOURNAL which some one had sent him. He considers Tushingham the best bull he has ever seen, and he has seen most

of the best ones in the United States, and therefore ought to know. Mr. N. is getting together one of the best herds of Herefords in America and will have the very best cows, including those of Lord Wilton blood, served by this bull, the pick of the male produce of which Mr. Vernon has already bargained for.

Lord Tushingham, two years old, was sired by the Hon. Mr. Cochrane's wonderfully well developed bull Cassio (6849), 11353, described in the December number of the JOURNAL, 1885, as "perhaps the best Hereford bull in Canada—certainly one of the best." His dam is Lily of the Lady Mary family, and in his ancestry are such sires as Pirate (3317), Zealous (2349), and Vanguard (1109). He is a grandly backed bull, with low outline, a good quarter and an immense front. His style is good and his handling fine, and, like his great sire, his compact build betokens the best of feeding qualities.

The one-year-old bull Tushingham 4th, by Tushingham (8127), 19450, is a young bull of very great promise. If the indications of development, which we noticed that he possessed at the time of the exhibition, are sustained, as he nears maturity, he will even stand before his \$5,000 sire. His dam is imported Lady Wintercott 12th, bred at Craven Arms, England, by Eredwardine (5233), and in the line of his ancestry are such bulls as Ardforton (1839), and Conningbyrd (1152).

These bulls, which would creditably head any herd, are now held for sale, as Mr. Vernon has soon to introduce other blood into his herd, where the relationship is more distant.

We are glad, indeed, to notice the success that follows the enterprise of Mr. Vernon. His great success in breeding Herefords numerically is only equalled by that of the show-rings. Although the herd was only established in 1883, Mr. Vernon has already secured the distinguished honor of having received the highest price ever paid for a Hereford in the Dominion, as stated above, and has also made numerous sales at good figures.

It is a singular coincidence that the career of the splendid Clyde horse, The Montgomery (3254), owned by Mr. Thos. Good, Richmond, Ont., and that of the no less lordly Tushingham (8127) was terminated as the cuts of each respectively were being prepared for the JOURNAL. The former (which appeared in the March issue) died, and poor old Tushingham—must we tell it—was burned in the car on his way home. The car had reached St. Anns, on the G. T. R., when it took fire from a passing spark, and car and bull were both destroyed. We had scarcely completed the above sketch of the three-bulls, when Mr. Vernon sent us tidings of the great misfortune to his new owner.

Canadian Live-Stock & Farm Journal

PUBLISHED MONTHLY BY

THE STOCK JOURNAL COMPANY,

48 John Street South, Hamilton, Ont.

Terms, \$1.00 per Annum in Advance.

THOMAS SHAW, RIVERSIDE FARM, EDITOR.

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

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

To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines makes one inch); for three months, 15 cents per line each insertion; for six months, 13c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines \$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c.

To Correspondents.—All communications intended for publication in the JOURNAL should reach us by the 15th 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, 1887.

THE time was when farmers could plead some excuse for not using a pure-bred male on account of the cost, but this excuse holds good no longer. A good male can now be purchased at a very reasonable figure of most of the leading breeds of cattle, sheep and swine. Up-grading is no less necessary with sheep and swine than with cattle. Although the former get a larger share of attention on this score, it may be because of their greater relative importance individually. Of the hundreds of thousands of sheep and swine sold annually to the butcher, but a moderate percentage of them are well graded. Good rams and young boars can now be readily got when old enough to sell, for about twice the worth of the meat. What a revolution it would make in the quantity and quality of our meat supplies if these were universally used!

NEATNESS in stock-keeping is a grand essential, as in other things. Go into some stables and you will find the cattle one mass of filth. They may be well fed, but the feed is not given to them—it is tossed to them much as one would toss a bone to a dog. The feed place, too, is all disorder, the feeder tramping over with his manure-smear'd boots what he expects the cattle to eat. This need not be. It is no excuse to say that there is no time to keep things neat, for it is notorious that as a rule the neatest workers put the most work through their hands, and for the reason that they are sure to be systematic workers. Old men who read this scrap. will not be much benefitted by it: their habits are already formed; but young men should lay it to heart. It is a great matter to keep one's stock always presentable, and it can be done where there is a will to do it.

LOSSES of cattle upon the ranch the past winter have been unusually severe. It is stated that some have lost thirty and even fifty per cent. of their stock. Some of the American agricultural papers (be it said to their credit) are condemning the system which allows cattle to starve and freeze in the winter, and saying that they have not much sympathy with the owners in their losses. We go a step further. We

lift up our voice in loud and long and solemn protest against the inhumanity of a nation that can tolerate such a thing. The strong arm of the law should step in and say that it must not be. What manner of men can the owners be who can calmly look on and behold their cattle die by a slow and agonizing death without trying to provide shelter for them the following season? It may be answered that this is very difficult to do, owing to the very large number of the stocks. This will be no excuse in the eyes of the Avenger of the wrongs of the lower orders of animal life. Man was given the lordship of the animal creation that he might rule with wisdom and kindness, and not play the part of the inhuman barbarian. That money is accursed which is coined on the ranches strewn with the unburied skeletons of animals that have died a most painful and lingering death, a death that might have been prevented but for the cupidity of the owners. We confess to some ignorance regarding the best methods of providing shelter and feed, but we cannot but think that "thirty" per cent. of all the live-stock on a ranch would go far to provide the necessary accommodation for several years.

THE prices of pedigree bulls in Scotland have been low indeed at the spring sales, almost unprecedentedly low. This is partially accounted for by the presence of pleuro-pneumonia in that country to so large an extent, but no doubt the principal cause is the severe and prolonged depression that broods over the agricultural interests of the country like a dark pall. The *North British Agriculturist*, in commenting on the low prices obtained, dwells upon the unwisdom of leaving unsteered so large a number of only average and inferior specimens. It shows very plainly that these as steers would have brought a much larger sum. Let us heed the lesson. All our races of pure-bred cattle are suffering in this way. Everything that has a pedigree is kept, the bad and middling along with the good, which inevitably tends to lower the high character of the respective breeds. No doubt the lesson to Scotch farmers in the present distress is a sharp one, but good may come out of it. When men get into the habit of doing a thing, it is always much more easily done. Hitherto but few if any have adopted this course, hence the natural aversion to commence it. It is a practice that all our breeders of pure-bred stock must learn sooner or later, and the sooner it is adopted the better for the true interests of the breeds. Inferior males are a misfortune to any community. The prices received for such now in Canada are but little, if any, in advance of the beef price. It should be remembered that male animals cost more to keep them as such than if castrated.

IN these times of greatly reduced prices parties who are owing much money will feel the pinch severely, but others need not complain. We have abundance of everything. No disease abroad amongst our stock of a virulent nature, and no dread of war or internal revolutions, as is the case with several of the nations of the earth. A slight change in our methods may bring the yearly returns about what they were in former years. We have wasted more during the last thirty years in not properly caring for our machinery than would make a handsome little bank account for many of us. Let us give more heed to this part of our management than formerly. The very attempt to improve will do us good, as the practice of economy in one direction is pretty sure to lead to the practice of this in other ways. It is not so much what a nation makes that constitutes it rich, but what it saves. If we prevent plunderers from preying upon us by

charging us extortionate rates, look well after all our farm machinery and thus make it last as long as possible, study methods of economy in keeping stock, and banish all needless luxuries from our dwelling, we can get along well enough in this land, so highly blessed with natural advantages. If the price of beef is low, use less new milk in producing it. Because grain is low, there is the more reason that we should feed it on our farms, and in this way produce more of it. While it is true that we do not get the prices of yore, it is equally true that we have abundant reason for thankfulness, and not a shadow of a reason for murmur or complaint. Those of our farmers who are disposed to murmur should read the page of distress in agricultural circles across the sea.

Is it True?

Soon after the annual meeting of the Dominion Shorthorn Breeders' Association we received the following letter from a prominent stock-breeder:

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As I find my finances considerably crippled by the actions of my neighbors, and you in particular, I will have to curtail expenses, so you can discontinue the JOURNAL.

With the consciousness of guilt hanging over him, that man who tries to appear innocent is not in moral balance. On the other hand, he who is conscious of innocence and allows himself to wear the brand of guilt is, to say the least of it, a tame man.

In the letter which introduces this article, "Stock-breeder" brings rather a grave charge against a number of his fellow-breeders, that of deliberately trying to injure him, and most of all is that charge laid at our own door.

As many of the present readers of the JOURNAL were not subscribers when the amalgamation of the herd books was first mooted, and therefore may not be conversant with all the facts, for their benefit as well as for our own justification, we will try and give an impartial resume of the whole thing, that the guilt or innocence of our fellow-breeders and of ourselves may be apparent to all.

Up to the first day of January, 1885, the amalgamation of the rival Shorthorn herd-books had not been mooted at all, unless in private conversation between little knots of breeders, who desired the prosperity of the Shorthorn interest at large, more than the success of one or other of the rival books. But the separation had been recent, only four years prior to this, and as the strong feeling engendered at the time of the secession of the British American Shorthorn camp was still unallayed, no man was found willing to incur the odium of saying boldly in a public meeting that the unblest strife should cease, and that the two divisions of the Shorthorn interest should come together and shake hands over the burial place of their unholy wrangle.

While affairs were in this chaotic state, the whole Shorthorn camp, rent by intestine war, outside nations looking on with a reasonable disgust, our breeders and intending breeders perplexed, and Shorthorn stocks all round selling at a discount, the editor of this journal took it upon himself to ask the members of the British-American Shorthorn Breeders' Association, assembled in Toronto at their regular annual meeting, held on the 24th day of February, 1885, to appoint a committee to meet with a similar one from the Agricultural and Arts Association of Ontario, providing he could prevail upon the members of the latter body to take this course, stating at the same time that he intended to ask them.

The storm that followed the proposal the breeders know and the editor knows. But, like many storms,

it was followed by the blessed outcome of fruition. When the hailstones were thawed by the sun of reflection, men saw the wisdom of the proposal, and better judgment crowded out untimely prejudice.

About the same time one signing himself "Breeder" began writing in the JOURNAL in reference to what he characterized as "fraudulent" entries in the British American Shorthorn Herd Book, which led to the unearthing of so large a number of mistakes, that all parties became anxious rather than otherwise that the proposed union should take place. It was accordingly consummated on the 9th day of February, 1886, the brightest day we believe that ever dawned upon the Shorthorn interest in Canada.

At this meeting the following standard of registration was adopted: "No animal shall be admitted to registry in the Dominion Shorthorn herd book except those whose pedigrees trace in all their crosses to imported cows registered in the English herd-book. Registration in the English herd-book of stock imported previous to 1865 will not be required. No recorded animals in the English herd-book that have not ancestors on record previous to vol. xxi. will be admitted. Those imported since 1846 must trace to ancestry distinctly designated, but owing to the difficulty connected with keeping proper records prior to that date, it will be sufficient to know that the ancestry has been imported."

To show how completely foreign to every one was the idea of injuring his neighbor, we mention that several voted for the adoption of this standard whose cattle have since been nearly all excluded from registry because of its adoption. To impute to those men the design of or intent to injure their neighbor would be about as just as to say they had intent to injure themselves.

Harm followed to a very large number, in the exclusion of their cattle from registry, with the corresponding depreciation in price that follows. The men who advocated union and voted for it are in no way responsible for this in the sense of being its cause: they were simply the occasion of it. Any reflective mind must see the difference between an occasion and a cause, and that difference is very great, for where the former term may be applied to a course of action rather than the latter, though the latter involved guilt, the application of the former might wholly eliminate it. The birth of the Messiah was the occasion of the slaughter of the innocents at Bethlehem, the jealousy of the cruel Herod the cause. So the occasion of the loss to Shorthorn breeders with rejected cattle was the adoption of the present standard, the cause of the loss, if we mistake not, had its root in unfortunate herd-book legislation many years ago, linked with a hankering in the minds of some for cheap cattle without due regard to an unquestioned pedigree, and to the lack of knowledge on the part of others as to what constituted a good pedigree.

What other course was open to the breeders? Legislation which will bring good to the larger number, is always justifiable, even though it cannot be brought about without harm to the minority. To illustrate: the duty on corn hindered the fattening of cattle, one of the greatest industries of the country, inasmuch as it prohibited virtually its importation for this purpose. Now if this enactment brought greater good to a larger number in Canada, we hold it was justifiable, not otherwise; and so of all imposition of tariff. This principle is or should be recognized in all legislation. Were it otherwise the owners of scrub bulls would have just grounds for saying the government was robbing them when it prohibited the evil spirits from running on the highway.

If reformatory measures can be brought about without loss to any one, it is a great matter. Where it is practicable to make compensation it is comforting to witness it, but where this is not practicable, shall reformatory measures be hindered in consequence? Where is the Shorthorn breeder in the Dominion who will take it upon himself to say that the amalgamation of the herd-books should not have taken place, because that in consequence loss was entailed upon a number.

Wherein, then, have the Shorthorn breeders of Canada injured a neighbor, and wherein have we harmed any person? We are sorry, indeed, that any one should say so, or even think so, and we leave it with the readers of the JOURNAL each to decide for himself as to whether we are innocent or guilty. And we are quite content to abide by the verdict of this and coming generations, as to whether by our action in this matter we have aided or hindered progress in the great interest of Shorthorn breeding in Canada.

It is very comforting to us to know that the only charge of this nature brought against us is that written by "Stock-breeder," and his is the only name that we have lost as a subscriber in this connection. We cannot but think if he had the revising of this letter now, he would place it with the things that were.

The Hog That is Wanted.

It is an absolute necessity with the producer of food that he provide an article adapted to the tastes of the people who are to consume it, else they will not come back to him for more. Pork has for long been a staple of the workingman, and in years gone by he wanted it fat and heavy, of the kind that would produce a large amount of drip, the place of which is now happily supplied in many instances with butter. This taste was further fostered by the fact that formerly pork was much more heavily salted than it is to day, so that the extent of its fatness was not so perceptible. The better methods of curing now practised leave it sweet and tender, so that it bears no little resemblance to fresh meat, hence the general desire now is amongst consumers to get tender young meat with fat and lean alternating.

This taste, so decidedly pronounced of late, is revolutionizing the pork trade, and the sooner our Canadian farmers recognize the fact and act upon it, the better for all concerned.

In conversation, not very long since, with Mr. Wm. Davies, Toronto, one of the most extensive pork merchants of the Dominion, we learned that young and light pork, of hogs weighing from 160 to 210 lbs. when cured, brought fully one cent per pound more than the old-time hog of 250 to 400 lbs.

This revolution should be hailed with satisfaction by the farmer, and he should govern himself accordingly. Doing so will prove very materially to his gain, rather than to his loss. Owing to their prolificacy pigs can be multiplied rapidly, so that slaughtering at an early age will not interfere with the obtaining of supplies, as it would with the beef supply, if the taste of the consumer demanded the death of the calf at an early age.

The great gain to the farmer lies here. It will not cost him nearly so much per pound to raise a hog that weighs 180 lbs. as to raise one that weighs 360 lbs.; or to put it differently, it will not cost him so much to raise two hogs weighing 360 lbs. as to raise one weighing the same. This is owing to the fact that the possible gains per day recede from the birth period, so that as age advances every preceding pound of meat takes less food to produce it than the one

following. Notwithstanding, it would be possible to reach a period too near that of birth, where slaughter would be profitable, as the rearing of the sow and her keep during the whole period of maternity is to be considered. This early maturity "craze," as some term it, is one of the greatest blessings that ever came to the farming community, and if intelligently practised in pork-raising, will, in this branch as in others of the live-stock interest, prove a means of saving tens of thousands to the country every year.

Pigs farrowed in April can easily enough be made to weigh 180 to 210 lbs. by the time that October arrives, and on until December, thus allowing them to grow in that season which is far the most favorable to their growth—the summer. We incline to the belief that a pound of pork made in the winter will cost at least one-third more to produce it than in the summer, owing to the less favorable conditions. By having them come in good time in the spring, they may be pushed on rapidly until they reach the required weights and turned into money before the period arrives when their keep will be more costly, and the gains much less rapid.

We have another item in this connection that our Canadian pork-raisers will be pleased to hear. It is this—that Canadian pork is more profitable to the merchant and more sought by the consumer than American. The reason is not far to seek. American pork is made by feeding corn more than anything else. The diet of Canadian pigs is essentially mixed, containing more of the flesh-forming ingredients and less of the carbonaceous, and therefore the quality is better, owing to the admixture of fat and lean.

The supplies of the pork merchants are now drawn very largely from the United States, which makes it clear that there is wide room for the extension of pork raising in Canada. With the extension of dairying the business must increase, as the skim-milk cannot well be devoted to a better use, unless it be in the rearing of calves.

The rearing of pigs in winter is a problem that is not as yet well worked up. Our best and most experienced breeders seem to think that it is hazardous work at the best, but we should all bear in mind that while much attention has been given of late to the construction of good cattle stables, very little has been done by way of providing suitable piggeries. With a proper place for keeping them, a mixed diet to feed them, and the exercise of due care in the feeding, there is no saying what may not yet be accomplished in this line.

There can be no question that a pound of pork will always be made more cheaply in the grass period than at any other time, but we presume our pork merchants do not wish all their supplies for the year to be rushed upon them between September and January, and therefore the advisability of giving attention to pork production at other seasons.

In the meantime our farmers should let the old-time 350 pound hog go, and take to the breeding of the 180 pounder. There is no more use in trying to stem the current of taste in the matter of foods, than to stem the tide of fashion in ladies' wardrobes. How much better it is to submit to the inevitable, even though it should involve the burial of dear old practices, and in this case all the more so when it is attended with so much more profit.

THE readers of the JOURNAL, when writing concerning live stock, implements, etc., advertised in its columns, will oblige us very much by mentioning that they saw the same advertised in the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Who Is In Fault ?

We are sometimes reminded by correspondents that certain breeds and strains of live-stock receive more attention in the columns of the JOURNAL than others. This is certainly true, and we now give the explanation. In the matter of live-stock cuts on the first page, those whose herd they represent usually approach us, so that if the owners of certain classes of live-stock are more alive to the importance of telling their neighbors in this way what they possess than others, we are in no way deserving of either praise or blame in reference thereto.

Again, our stock notes columns are open to the world. The owner of but one pure bred beast is just as free to tell us and our readers about it as the owner of one hundred. The matter in those columns is sent to us. If some then are more alive to the wisdom of availing themselves of the chance to advertise their stock in this way, it is to their credit, and it is no fault of ours that others neglect to improve the proffered advantage.

We have paid advertisements in the proper columns. Breeders in some lines advertise much more than in others, and it is an undeniable fact, that the lines most advertised prosper the best. We do not mean that every time a man advertises his stock he gets an equivalent, but we do feel that every judicious, persevering advertiser does in the long run. If some men are more fully alive to their own best interests in this way, they are to be commended for their wisdom. It is not the JOURNAL which keeps others from doing likewise. It is a favorite maxim with some that "true merit in a breed will at length be discovered." Assuredly it will, but *at length* may mean a long time. Many a noble character has lived and died unknown beyond his own township. A little judicious advertising would have made such an one, it may be, a far more useful citizen. Like the owner of some of the good breeds of cattle, he kept his worth under a "bushel," and his neighbors were content to let it stay there.

Then there are the readings given in each number. These are usually in connexion with the sketch on the first page (not always), and are often not of our seeking. The men who desire them are wise in their generation as we see it. They do not wait for some one to come and ask them to do the very thing it is to their advantage to do—let the public know what they are doing.

In the columns of the JOURNAL we know no favorite breeds or strains. To do so would be taking a mean advantage of our position. The little Shetland pony is as welcome as the Clyde, and the Pekin duck as the twenty-six thousand dollar Jersey. Out of the JOURNAL we have our preferences, and they are *very decided*, but they must stay outside, forever. They cannot come within the shrine sacred to the interests of the live-stock breeders of every clime.

It would be very unwise for us to single out any breed apart from the cooperation of the owners thereof, and give it *undue* prominence. We would then be introducing our own preferences to the detriment of some in other lines. A calm review of the whole subject leads us to conclude that if any breed is to flourish it must first have *merit*, and, second, owners who *bestir* themselves to make this known to the whole community.

"I regard the JOURNAL as one of the most readable and best in the country. Its columns are always sparkling with gems of useful information, and I could not afford to be without it."—J. N. Coldren, Iowa City, Iowa.

"This is a paper that stays up to the standard."—Walter H. Stevenson, Fenelon Falls, Ont.

Rambling.

(Held over from April.)

When men are in earnest they usually succeed. It seems a pity that the world has not more earnest men, men who can bring an enthusiasm into almost every thing that they do. At Grimsby we attended a farmers' institute, March 8th and 9th, and on the evening of the 8th a dinner, under the auspices of the Institute and the Fruit Growers' Association. Everything was done in a most creditable way, and things were said at both the meeting of the institute and the dinner that would abundantly repay those who were in attendance for their trouble. The ladies were out in strong force at the dinner, with all their humanizing and softening influences on that wilful animal sometimes called man, who arrogates to himself the title of "Lord of Creation." Woman at the banquet, the ballot-box, the temperance car, and the mission wheel, and a brighter day dawns on this weary, weary world.

Mr. A. H. Pettit, the president; R. W. Gregory, the secretary, and the members generally, seem intent on making this Institute accomplish the work for which it was given a being, in this fruit paradise of Ontario.

Although fighting against a tremendous odds of late years in the form of adverse climatic influences, both summer and winter, army after army of insect pests, and low and fluctuating markets, the fruit-growers are by no means inclined to give up the conflict. On the burial ground of dead orchards they are planting fresh ones in the hope that with more propitious seasons, coffers brim full will come again as in the good old days now gone.

COOKSTOWN,

on the N. and N. W. Railway, but a few miles beyond Beeton, now famous as the base of the huge operations of Messrs. Jones, McPherson & Co., in the production of honey and honey supplies, is located on four corners, representing the township of Innisfil, Essa, West Gwillimbury and Tecumseh, in the county of Grey, if, indeed, we can tell any more which county we are in. It is a stigma on any government to remove the old landmarks of electoral division simply to give them a longer lease of power, let it be Liberal or Conservative. Our children and children's children will be ashamed of the carving of the electorate that we have witnessed in our day. The Institute held here has for president Mr. Thomas Phillips, and secretary Rev. G. Carswell, both of Bondhead. Prof. Robertson gave the people of this part a fair feast of dairy lore on the evening of the 11th March, which was evidently received with a relish. The next day we listened to what has perplexed us not a little in reference to statements made at the Institute relating to the difficulty farmers met with in eradicating June grass from summer fallows. It is either not the June grass that we have in Westworth, or the soil of Grey is overprolific. We mean to see.

Mr. E. Jeffs, who for some years past has been fighting the battle of the Shorthorns, lives in this region about half a mile east of Bondhead, which is his P. O. and telegraph station. Through the centre of his farm rises one of those high rangy hills peculiar to that country. The steading, a suitable distance from the road, not quite far enough to be out of the way of ramps, reposes in the plain, some distance from the base of the hill, which in its ascent in a southeasterly direction supports tier after tier of pyramidal-topped sugar-maples, which even in their winter nakedness had a strong attraction for the lover of the beautiful. When decked in the gay garments of springtime, looking benignly down upon the

patient yeoman of the valley, busy depositing the seeds of hope in the soil, they must be very lovely. How wonderful it is that the dress of nature is always appropriate! It is only the daughters of Eve who are sometimes too fond of gaudy colors.

The pure herd of Mr. Jeffs numbers 18 head, with several cows still to come in. Two of the cows, Zora 12th and 15th, are descended from Zora 7th, brought by the late John Snell from Kentucky. Myra, calved 1879, by Filigree Duke [5244]—355—, a Kentucky bull, bred by A. J. Alexander, Woodburn, dam Maid of Honor by Lord York 26766, is descended from the stock of the late Geo. Miller, Markham, Ont. Lady of the Grange, by Jupiter 2d, [3419]—540—, an aged cow, dam Countess by Major—802—, traces to Margaret by Snowball. Flower of the Grange, three years, by British Statesman (42847), a Campbell bull, imported by J. Isaac, Bomanton, Ont., two years old, and Grange Princess, two years old, by the same sire, are good representative animals. Oxford Belle, an aged cow, by Figits Oxford 8th, 17085, dam Pride of the Grange by Lord Raglan [2555], is also descended from imported Magnet, and Pride of the Park, two years, and Countess of the Grange, an eleven months calf, both by British Statesman, are full of promise. Isabella 4th, a Kinellar heifer bred by S. Heacock, Kettleby, sired by 5th Fordham Duke of Oxford—719—, and out of Isabella 2d, by Oxford Mazurka 8750, is of the useful sort. These are amongst the principal females of the herd.

There were there three or four bulls, all by British Statesman (42847), and from the dams Lady of the Grange, Myra, and Zora 12th. Prince Arthur—3452—, by Honest Tom—791—, heads the herd. He is a massive roan, a fine handler, with an immense quarter. He was bred by Mr. Geo. H. Caldwell, Crown Hill, Ont., and is a half brother to the sweepstakes Bow Park bull Sir Arthur Ingram. His dam is Sheriff Hutton Queen, imported by W. Linton, Aurora, Ont., and his sire, Sir Arthur Ingram (32490), of prize-winning fame at the English Royal show. This bull cannot fail to prove a great acquisition to the herd. The young crop of calves are by him.

The flock of Southdowns are the special care of the younger Mr. Jeffs, an ex-student of the Ontario Agricultural College. It then numbered some 44 head and 20 lambs from 10 ewes, a grand return. The little black-faced fellows were pushing well ahead, as though conscious their only mission at present was to drink and grow. They are from stock imported by Mr. James Burns, and are bred principally from imported stock.

The Berkshires (pure) are grounded on the stock of W. Linton, Aurora, and that of the Messrs. Snell, Edmonton.

On this fine farm of 245 acres, on the sunny side of the hill, at the other end of the farm, where the steading formerly was, stands, it may be, the oldest bank barn in Canada. It was built by the late Mr. E. Jeffs some fifty three years ago, while the battle of wilderness life was at the thickest. The old stone wall supporting it says a good deal for the sagacity of this son of a British soldier, who for long years was captain himself of the militia of South Simcoe.

Mr. Jeffs wisely concluded years ago that the care of cattle, important as it is, is not the greatest concern that can engage the head of a house. The old homestead on the sunny side of the hill was forsaken long since for a new one on the shady side, that he might be near the Bondhead school. And the liberal education reaped there and in places far away by the household, will, we are sure of it, give him the hand-

somest return of anything that he has ever done, relating to things sublunary. This work was not deferred till the family had grown. They were not cheated of opportunities to learn at the right time, and then rewarded with that mockery of compensation, a year or two of finish where there was but little to finish, but were given fair play in this matter from the first.

The fates seem to bring the good professor of dairying at the Ontario Agricultural College and ourselves very frequently together. We met again at Wroxeter on the 14th of March, and were met there by a large number of the sturdy yeomen, at the Institute held there, who, along with their wives and daughters, were eager to gain information relating to the farm and dairy. Mr. Gibson, Wroxeter, presided in the absence of the president, and the secretary, W. Bishop, Brussels, is evidently intent on doing a good work well.

We saw too little of this country by sunlight to say anything regarding it. The only products of the soil that came under review were good, strong, broad-shouldered, very respectable looking men, wives strong enough to take their own part, and young men and maidens of no little promise.

At Hillcrest, the home of Mr. Christopher Barker, on the 17th instant, we found the same faultless neatness, both in the home and out of it, that so caught our attention during the visit of last June, when making the farm awards. The out-buildings, in a state of chaos then, owing to improvements under way, are completed now. We hope to give the plan in some future issue. The cattle, the horses, indeed everything in the shape of live-stock, looked well. Every implement had a place assigned it, and it was in that place, and in good order. It is refreshing to see a farm kept thus, where disorder reigns supreme in so many homesteads. Mr. Barker is deserving of much praise for demonstrating so completely the extent to which neatness may be observed in the management of a farm, without interfering with an ample balance-sheet on the right side. One generation of such farming as that observed at Hillcrest would turn our country into a rural paradise. But it will never be done until the parents show the children an example. Neatness is not a product of spontaneous growth. Like every other useful fruit that grows in the garden of life, it is the product of a most careful cultivation from very early years, a cultivation either self-imposed or done by the hand of others.

Mr. Barker has increased his herd of late by the purchase of some choice Shorthorns at the sale of Mr. Thos. Stock, Waterdown. His ideal seems to be plenty of substance without roughness, keeping at the same time an eye to the milk-pail.

Importing Cattle from the United States.

Not very long ago we received a letter from a subscriber in Middlesex county, Ont., quoting as authority the *Weekly Journal* of Chicago for a statement to the effect that certain parties there had completed a contract to deliver 6,000 head of Texan cows and heifers to a firm in Montreal in the month of May or June. The writer expressed himself very strongly in the letter in reference to the injustice of the thing, and argued that it should not be allowed. On receipt of this letter our convictions were, that there was no truth in the rumor, knowing as we did, that cattle from the United States could not, under existing regulations, be imported into this country at all, unless for breeding purposes, in which case they would have to undergo a ninety days' quarantine at Point Ed-

ward. To make doubly sure we communicated with the Department of Agriculture at Ottawa, and received the following reply:

Ottawa, 29th March, 1887.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In reply to the inquiry in your letter to me of the 28th instant, I have to say that I cannot say if the statement in the *Weekly Journal*, of Chicago, referred to, to the effect that 6,000 head of Texan heifers and cows are contracted to be delivered in Montreal in May or June next for \$90,000, is or is not true; but this I may tell you, with positiveness, namely, that no Texan heifers or cows will, on any consideration whatever, be allowed to pass the frontier. They are absolutely prohibited.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Three Cases of Milk Fever and How They Terminated.

As a common farmer we tell our story as it took place. The animals were Shorthorn, registered in the B. A. H. B., and eligible for entry in the D. H. B. I mention this, as some of your readers seem to think the Shorthorn has lost milking qualities; some think they have lost all quality. The writer was raised among Aberdeen Polls, and fearlessly states that the Shorthorn of to-day is better than ever, and for that part of it, better than any. The first cow calved in June, and was on good red clover pasture. Being a moderate milker we had no fear or concern regarding her. We can invariably tell from eight to twenty-four hours before our cows calve, and we took this cow to stable about ten hours before calving. Everything went well until eighteen hours after calving, when symptoms of this terrible (and to the herdsman) terror-striking disease showed itself. It is easily known by the slight stagger in the gait, or by a bracing of themselves as they get up, until it soon becomes impossible for the animal to rise. Being prepared for it, we at once gave our cow 1 lb. of Glauber salts, followed by another pound one hour after, and followed this with a bottle of black molasses, an excellent purgative for a cow. Took our seat and awaited her lying down, probably to rise no more. She kept lying and rising alternately for an hour, when she failed to get up again, trying hard. We then used the syringe, the bowels being moved, but we thought not to their full capacity. We discharged our duty faithfully, but with no success. We stayed by her, blanketed her when her skin got cold, rubbing at times, and using the syringe all we could. She was in great pain sometimes, but occasionally looked as if there was little ailing her. Twenty-four hours after she had fairly gone off her feet, her bowels were moved, but what it was neither a neighbor or the writer could tell. It was more like a piece of half boiled soft meat than anything else I know of, and we examined it closely. In one hour or so our cow got up; inside of two hours she was eating hay as only a hungry cow can, and scoured as one would expect; she had plenty of milk for her calf, while she lay, and did well after.

Our next case was a cow we had nearly \$300 invested in, a good milker. For weeks we have taken a large sized tin pailful, night and morning, and her strong calves got all they wanted three times a day besides. She gave us considerable apprehension at calving, but always did well previous. On this occasion she calved in August. We intended taking her in for two weeks before calving; the pastures were poor and dry, necessitating the feeding of our other cattle in the stable twice a day. She did not make as big a bag as usual. As day by day went past we considered her safe, under the circumstances. She calved at noon in the stable, as nice as could be. We went to our work satisfied our cow was safe. Got up early next morning; went to the cattle stable first thing. She got up as we opened the door, and to our surprise we saw what we thought a slight bracing of herself after rising. Started her around her box, which soon gave us unmistakable evidence of the presence of milk fever. Only a few minutes elapsed until she had one pound of salts followed by another inside of an hour, and almost two bottles of molasses a little later. Her bowels had been moved during the night, but not as they should have been. By noon she was off her feet; we repeated the doses done to the other cow with no success; blanketed her heavily; rubbed her chilled skin, and used the syringe faithfully, but of no avail. All night long we did for our cow what we could only do for our fellow-creatures. She died in

agony almost twenty-four hours after we saw the first symptoms. Strange to say, as her last breath was about departing, her bowels moved, and again the same half-boiled looking meaty substance. We feel confident, had this taken place half an hour sooner our cow might have recovered, for she was strong.

Our third case was a cow that calved in April, consequently was on dry food. A fairly good milker; had to take half of her milk from her calf for quite a while. She had no grain for more than a week before calving. Seeing that she was to calve in a few hours, we gave her a bottle and a half of molasses. Everything went well; the molasses had operated a short time after calving. We had a little suspicion, but did not expect trouble. Twenty-four hours after calving to our horror indications of this frightful trouble were too visible. However, we had a good start, inasmuch as the bowels were all right. We gave one pound of salts immediately, and another inside of an hour. Her skin got cold, and we covered her with a thick horse blanket, covering her all we could with others about her neck and shoulders; put our wife's irons on the stove, heated them all we could; ironed our cow on the blanket as fast and as hot as it was possible to do. Never stopped all one night, and day. The animal seemed pleased, if not greatly relieved. From the hour we started it was a hard job, but we were amply rewarded. After twenty-four hours steady ironing our cow's skin became moist, as it were with sweat, and now she mended steadily. She was off her feet at least twelve hours; was weak in rising for a day or so, but did well. We are convinced the hot irons saved her. Our opinion is, good milkers, if in good or high condition, from five to eight years old, will have milk fever on the poorest of dry feed, if not physicked or milked freely at least a week before calving.

Judging by Points.

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL.

SIR,—Now that the matter of selecting judges for exhibitions has come up, I hope you will favor me with space for a few words on that subject. I was not at the meeting of the Agricultural and Arts Association, and I do not know how far this subject was discussed, but I think there is a system of judging which, though going further than the one you mentioned in the March number of the *JOURNAL*, would meet the conditions you seem to require. It is that of using a score card and scale of points in judging. This system was given a trial by Prof. Shelton in a county in Kansas, and proved very satisfactory, so much so in fact that the Kansas Shorthorn Breeders' Association, after hearing the professor's experience and the matter discussed by members of the association, passed the following resolution:

"That it is the sense of the association that the one judge expert system of awarding premiums will secure more uniformly correct decisions in the showing, and we earnestly request all fairs in Kansas to adopt the same."

And some writer has mentioned the advisability of forming a national standard for the United States.

Now this system has many advantages, among which may be placed the fact that exhibitors will see upon what grounds the awards were decided, the actual measurements being taken there will be no opportunity of showing favors, and every person will get his due. Therefore we have but the eye and the hand as the source of knowledge upon which to make decisions, but by this system we would have the eye, the hand and the tape-line, contributing to that knowledge, making it more extensive, and consequently the decisions more in accord with the real excellency of the animal. Of course it would require a person capable of making the measurements perfectly. But I think it would be a much easier matter to find a man who could do that than to find one who could make an equally sound decision by the method formerly pursued.

SUBSCRIBER.

Brussels, Ont., March 17, 1887.

Amongst Our Friends.

"Your journal keeps well to the front. It is far ahead of any stock and farm journal in America."—Andrew Gilmore, "Oakdale," Huntingdon, Que.

"The *JOURNAL* thus far has been one of the best agricultural papers in the Dominion."—R. Wilkinson & Sons, Warwick West, Ont.

"I am always glad to see the *JOURNAL* come in, as I find much valuable reading and many good hints."—S. Fisher (M.P.) Knowlton.

The Prince Albert Region as a Stock Country.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Presuming that a letter from this part of the Dominion would be of interest to the many readers of your valuable JOURNAL, I venture to give you a sort of general idea of the live-stock interest of the Saskatchewan region. At the last annual exhibit of the Lorne Agricultural Society in the town of Prince Albert, I had the pleasure of witnessing a very creditable exhibit of thoroughbred Shorthorns and Shorthorn grades. In the former class four entries were made, in which Caswell Bros., of Saskatoon, exhibited seven head, and Thomson Bros., four; Snell & Miller, one bull, and W. C. McKay one aged bull, on which he took a prize. The last mentioned gentlemen are of Prince Albert settlement. They also exhibited a nice lot of grades. In connection with both classes I may say that from the inception of the society Thomson Bros. have been awarded most of the best prizes on cattle, sheep and pigs; they also won the challenge cup for the best herd of cattle. They are pushing, energetic young men, and deserve every credit for the manner in which they have increased their stock since coming to Saskatchewan. The physical features of this part of the country, together with the unparalleled salubrity of the climate, and admitted excellence of its grasses and animal herbage, render it peculiarly advantageous to the growing of cattle and sheep. The prairies are rolling and nicely interspersed with lakes of good fresh water, and neat, round, trim bluffs of poplar, which form an agreeable resort for cattle, both in winter and summer. Stock thrive and do very well running out from the first of April, or as soon as the snow allows them to get at the grass, on to the end of November, at which time the snow generally covers the short bunch grass, which remains quite green near the roots all winter. Cattle that are allowed to run out after the first deep snow, have to fall back on the tall dry grasses in the sloughs and marshes, which, owing to the extreme dryness of the atmosphere, retain all the nutritious properties, which, however, does not compensate for the inevitable loss of flesh, by exposure to the extreme frosts. This, together with the fact that an abundance of the very best of hay can be had for the cutting, and good warm stables, run up with logs, and well mudded, for next to nothing, induces most people to stable their cattle.

In conclusion, I may say that I strongly advise all those who wish to make a start in stock-raising with limited means, to try this part of the country. I came out to this country in 1874, travelling along the boundary between Montana and the Bow River country, and since then over all the more fertile northern part of the territories, and have not seen a better place for a beginner than the Saskatchewan country, in the vicinity of Prince Albert. In Montana stockmen allow 20 per cent. for casualties in cattle running wild; here it is a very rare thing to lose even one animal, so the difference is in our favor. This, besides the enhanced value of stabled cattle, will more than compensate one for the cutting of hay and attendance.

J. O. DAVIS.

Long Lake Ranche,
Prince Albert, N. W. T. }

Selecting Judges for the Provincial Exhibition.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I attended the meeting of the board held at Guelph last fall, where the subject was discussed from two standpoints. The first proposed the expert system, that of judging by one man, and the second the appointment of a committee of the most practical men of the board to choose three judges irrespective of locality, competent in every way for the work.

Along with many others I objected to the first proposal, on the ground that in the stock classes it would require a practical breeder, and, as in Shorthorns we have Bates, Booth and Campbell men, such a judge would naturally favor the strain of his own breeding, and a knowledge of the owner might influence the one judge.

At the Toronto Industrial last fall it was apparent to outsiders that the contest in the Durham class for sweepstakes bull lay between Sir Arthur Ingram, of the Bow Park herd, and Sir Christopher, owned by C. M. Simmons, Ivan, Ont. While the judges consulted long, a prominent breeder and importer passed. A bystander said to him, "How is it going?" His

reply was that "it should not take a minute to decide between them." Bystander said, "Which will get it?" He answered just as readily as before, naming his favorite. I questioned then and do now whether he had ever looked over one of the animals carefully, yet he could tell at a glance which should have the silver medal, when men considered our best judges could only decide after a most rigid examination. When we can get a man with judgment so penetrating that he can tell all about the animals in the ring, although not in it himself, the Shorthorn breeders may be taught a lesson in judging in this nineteenth century by such an one. I re-echo the sentiment of the Guelph meeting when I say that by the one judge system there would be very great danger of some of our animals being slaughtered, although I doubt not that we have some men who would give an unbiased judgment, even in a ring composed of a score of beasts, and composing those of different lines of breeding.

I heartily endorse the second proposition. In the past judges have been selected in many lines that were not practical, while good, reliable judges were left at home in the same localities. It is not to be wondered at, then, that men are found acting as judges on stock at the Provincial who never bred or owned a thoroughbred of any class or breed. This I have observed for twenty-five years, and feel that I do it reluctantly. I could mention the different places where I have been an eye witness, at which the public were pained to see men acting as judges who did not know the different breeds of sheep or pigs, but refrain from doing so. I do not wonder that the people of the province are asking through their representatives a change, and that an effort be made as indicated, to secure thoroughly practical and reliable judges, by means of a committee appointed by the Provincial board, and selected from their number.

BREEDER.

The Style of Hog that is Wanted.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—You are perhaps aware that the appetite of almost everyone in this luxurious age has become fastidious, and is yearly becoming more so. The foregoing fact makes our customers, both in Canada and in England, insist on having lean bacon and ham. The imperative necessity for long, fleshy hogs has led the bacon curers in England and Ireland to supply to farmers boars of the Improved Yorkshire breed, also the Tamworth, the latter said to be the oldest native breed in England, and probably the only one which has remained pure, and in which no trace of the Chinese and Neapolitan blood can be found.

Both the above breeds are long and fleshy, qualities which are very valuable to the pork packer, and becoming increasingly so. So necessary is it that we have hogs of this character that we purpose from this time forward to pay a premium on such weighing from 160 to 200 lbs., alive. Of the Tamworth we have no personal knowledge, but we are acquainted with the Improved Yorkshire and have lately seen some, imp. and prize winners, at the farm of Mr. Ormsby, Ontario Lodge, Oakville, that appear to be exactly what is required, and we hear he is selling them very freely, a fine litter only a few days old being all sold.

For mess pork undoubtedly the Berkshires are very suitable, but this article is only in limited demand and practically the whole used in Canada is imported from the West. We would strongly urge farmers and feeders to discard the large fat breeds and adopt such as we have described; to feed liberally and sell them at six to nine months old, when they should weigh about what we have named as the fancy weights.

WM. DAVIES & CO.

Toronto, April 13th, 1887

"Please send me the JOURNAL for one year. A friend sent me a copy, the first I ever saw, and I think I could hardly afford to do without so valuable a farm paper."—Jno W Staples, Bobaygeon, Ont.

"Of the thirteen different papers which arrive at Hillside Farm, none are more welcome than yours, which contains information indispensable to every enterprising farmer."—L. Burnett, Greenbank, Ont.

"Although I retired from farming three years ago, I still want the JOURNAL (as I have been a subscriber from its commencement). I think it the best farm paper now published in Canada."—A. Martin, Jordan Station, Ont.

The Folly of Selling off our Young Stock.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Much as has been said and written regarding the mistake of selling of our young, immature stock, the practice is still followed up by many of our farmers. These same farmers complain that their gains are so small after all their hard toil and care, both in live-stock and grain-growing! How is this, in a country like ours, where so many seem to prosper and accumulate wealth as fast as they can take care of it? And still the average farmer finds it difficult to make ends meet, to say nothing of accumulating for the bank or investment society? We have only to observe their course of management. They have a farm of fairly good soil. They keep just enough teams to perform the work in a "kind of a go over" plan. They never could afford to buy the improved labor-saving implements for use in agriculture; they keep a "scraw" of scrub cattle and sheep, and pigs that can turn over sod as fast as an average Irishman with a spade; and they will tell you how "hardy" those animals are.

Now these farmers do not realize much profit from this kind of stock. To keep an animal until it was fit for export is something they don't know anything about; and indeed, it would be folly to attempt to feed up those sharks so as to be fit for export. They must begin first to improve their common stock by the use of good thoroughbred males, and follow up with a more liberal system of feeding; and as young stock take all their frame-forming material from the food they eat, consequently the farm on which they are fed soon becomes exhausted of the requisite materials, unless an equivalent can be returned in some way.

Now by raising stock of any kind till near maturity, and selling at a low figure when in a lean condition, must soon impoverish the land and the pocket. You cannot take out what is not in; therefore, if our average farmers of Canada would grow good crops of grain or other produce, they must keep the stock on the farm and feed them the greater portion of the coarse grains and other bulky produce producing a first class quality of manure, which, when properly applied, together with good tillage, cannot fail to produce paying results.

To my brother farmers I would say, feed your live stock till fully matured and well fattened, then you will realize a good sum for the animals and a good rich quality of manure to turn into the hungry land.

WM. G. RITCHIE.

Greenock, Ont.

Thoroughbreds vs. Poor-Breds.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I am much pleased with the JOURNAL, and especially with the manner in which you are trying to bring fine stock to the front. The amount of information that you are giving to your readers on the subject is worth many times the cost of the year's subscription, as it keeps us posted in regard to the best in the land. You have stated that the sire of a herd or flock is one half of the herd or flock, which in a majority of cases must be true. And perhaps the only exception to the rule would be in having an inferior sire with first-class females, in which case the sire would prove much more than half—yes, nearly the whole, when the result is that the herd or flock goes backward, thus bringing disappointment to one who doubtless has bestowed much care and paid much money for thoroughbreds that he might have something first-class.

I wish to give you a little of my own experience in stock-breeding, hoping that it may benefit some one. Having started a flock of thoroughbred sheep, and having procured high-priced ewes, some imported from the best flocks in England, for the foundation, I had anticipated much from them, as they were my pets. I have been greatly disappointed, and have suffered much loss from the use of an inferior sire. I sent to a well known breeder (and in the Dominion) for a first-class ram, which was received in good order, but was far from the style of sheep that I would have selected myself. He came, however, with a good pedigree, so I concluded to use him, as I did not know that I could do any better at the time. He was used two years in the flock and proved a sad failure. The lambs seemed all right when young, but as they came to maturity turned out very inferior,

many of them with the best of care not surviving the second winter, so that the money, time and care for the two years were nearly thrown away, and time was thus lost with the ewes, as they were growing old, and some of them meeting with accidents, so that they were an entire loss. I have therefore concluded that it is better for one to go a long way to make his own selection of a sire, and to look until he finds the type that suits him. A breeder of any kind of stock should have a definite idea of the animal that he wishes to produce, and in selecting a sire should be governed accordingly. It is no small task to make a selection; one wants the animal up to a certain standard, and it is just as important that the ancestors on both sides, and as far back as may be, should come up to the style he has in mind. From nothing, nothing comes. Fine stock does not come by chance, is a truth that every stockman must heed, and success commonly comes by much care and close attention to the many details of the business.

W. A. WOOD.

Wood Homestead,
East Smithfield, Pa.

Selecting Judges for Exhibitions.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Having read with interest in your March issue a paper on the above subject, I was very much taken with it, and think it right to the point. As it is with other things, always improving, if exhibitions are to cope with them, they, too, must improve. When experience has proved a system to be a bad one, why should we not have it changed? It is not rare at these shows to hear judges say (especially so in the sheep classes) when through with, say Leicester or Cotswolds, "Well, I don't know much about the Downs," but they will set to work and judge them all the same, which is sure to cause dissatisfaction and end in protest, etc.

There was a judge appointed at one of our exhibitions some years ago, a Scotchman, and while surveying the sheep with a companion before he commenced his duties, he came to a pen of Southdowns, and remarked to the other, "What do they call the black faced beasties?" The answer was, "They are Southdowns." "Indeed, I believe I have to be judge on them to-day," he replied. This is a sample of the class of judges that are sometimes appointed from year to year. It is to be hoped, then, that in the near future we shall have a better system of appointing men who are fully qualified, and who will do the work that has been given them, without fear of friend or foe.

Little does it matter from what section a judge comes as long as he is fit to properly discharge his duties.

Another evil is the appointing some of the same men in the same class two years together, and sometimes oftener. Some will say, "Well, he was a good judge last year, why not have him again?" Just for this reason. Any person will know the same stock when they come into the ring the second year, and very often the animals that took first last year will be behind the second prize one. But the judges, knowing how the prizes went last year, are not likely to go back on their awards this year. You will hear of instances of the first prize animal being offered in exchange for the second prize ones, large sums besides being given; but if competent men were selected as judges this could not be. If judges fail to discharge their duties properly, those who were not treated justly are very apt to leave the show, and never show again, which is a great loss to the show, for every member helps to keep up and strengthen the association.

Allow me to say a word on another subject, which I think is doing a great deal of harm. After qualified judges have been appointed and got to work, but before they were through with their duties, they had received from some of the directors two or three glasses of whiskey. Now, Mr. Editor, do you suppose those men were in a condition to discharge their duties? I say, no. And I have repeatedly seen judges not able to stand right on their feet, and yet were judging stock after they were in this condition. Such work is a disgrace to any exhibition.

W. B. COCKBURN.

Aberfoyle, March 29, 1887.

Men who cannot refrain from coming under the influence of intoxicants are not fit men to act in the capacity of judge where the temptation is at hand.

When men undertake to judge in the condition referred to above, their manhood is so far sunken, that they have lost sight of it themselves. The director who assists to put a judge in that condition is recreant to his duty, and the exhibitor guilty of the same offence is a briber. Happily we believe these things are becoming rare at exhibitions, but even one instance in a year is a national stigma.—ED.

Do Sheep Deteriorate When Bred Long on the Same Farm?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—You ask in the March number, how are we to reconcile apparently conflicting statements regarding raising sheep for profit, inasmuch as the Huron and Middlesex farmers stated with considerable assurance that they did not prosper well, when kept long on the same farm; while the sheep of Mr. Henry Trinder, Simcoe, had prospered for a great many years successively, simply through the introduction of fresh blood in the rams. In the paper alluded to, which was read at Exeter, the writer cited his own experience with sheep rearing on a small scale, which he had found very profitable. Thus far, I agree with every word he said, and so did I with the Simcoe man, as doubtless he has been engaged in the business in the same way.

The writer of the paper at Exeter considered that, taking his experience as a basis, it would pay far better to go into the sheep industry extensively, if you could succeed in the same ratio with a large flock as with a small one. Taking exception to this assumption brought me into the discussion, and led me to give my experience, which covers 30 years.

The paper read at Exeter is not in my possession, nor did I hear what was said at Simcoe. I will repeat the substance of what I said at Exeter, and leave it with you, Mr. Editor, to correct me if I go wrong, as you were present and heard the discussion. I stated that to stock 100 acres or more with sheep and keep them in a large flock, they would not thrive for any length of time; that I had fed a large lot for a number of years, but did not, nor would not, keep them together for many months, or in other words, I changed them often. I will now go a little further. When I kept them in large flocks even for a month or two and fed grain, although they had a large area of land on which to pasture, I noticed they did not thrive so well as those put on lower rations, but confined to flocks of from 20 to 30 head. I noticed the same conditions in the case of lambs, of which I handled thousands for a number of years. Put 200 or 300 head of these on 100 acres of good pasture for two or three months, and I am confident they will be over one-half culls when you take them to market; but divide them into lots of 20 or 30 head, each with a proportionately lessened acreage, for the same term, and they will bring one half a cent per pound, live weight, more than the lot under the conditions first mentioned, in the New York market. The same will apply to aged sheep, whether they are kept for the market or for breeding purposes. I watched two or three cases where the pasturing of old sheep was tried with large flocks, and where they had any amount of pasture grounds, and each of them failed, and for no other cause, I fully believe, than that they were kept in large flocks.

Several years ago I bought sheep for the New York market, south from Ingersoll, Ont., and in several townships. Cattle at that time were very low in price; hence, many with large farms kept large flocks of sheep, in fact, they made this a specialty. Now, sir, it was not easy to buy from them and save yourself, as when you got them together to sort them, they in variably handled badly. They lacked quality, or, I might say vitality, and I never could get a lot that would weigh in New York over 120 to 130 lbs. all round live weight. From those farmers who had small flocks, there was no trouble in securing what would suit the same market, both in weight and quality. When they reached the market, they had sufficient vitality to feed vigorously, and to take the butcher's eye. Those that had been kept in large flocks were off their feed under like conditions, so that I have turned away in disgust while the butchers were handling them, lest I should be forced to listen to their condemnations. I therefore repeat it again, that if you wish to succeed in the sheep industry, you can best do it by keeping them in small flocks. I might

also cite the experience of other farmers and graziers, but surely enough has been said to clear up the apparent discrepancy between the statements made at the Exeter Farmers' Institute and the experience of Mr. Trinder, of Simcoe.

The Importation of Live-Stock from Britain.

In reply to an inquiry we have received the following from the Minister of Agriculture for the Dominion:

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As regards the importation of stock from the United Kingdom during the present season, I cannot say to you with confidence how long our ports will be open, as the question of discontinuing free importation is being very seriously debated, for the safety of Canadian cattle. I think, however, in any event, that sufficient notice of closing would be given to prevent any inconvenience to intending importers. I may add that in the case of all importations the most rigorous questions will be asked under oath, as regards the places from which the cattle come, and the condition of the cattle themselves. The object of this will be to prevent the importation of any inoculated animals, or animals which have been in contact with disease, and could bring the germs, in the same way as those by the Hibernian last summer.

On What Ground Was the Award Made?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I, your February number, there appears an article from W. P. Ball, V. S., giving a description of the roadster horses, shown at Sherbrooke exhibition. I am pleased to see such articles. However, I am at a loss to understand the system they adopt down east in judging. He says, the "elegant brown horse John T. Phillip, jr., carried everything before him, winning first prize and medal." After giving a description of his performance and his ability as a good stock producer, he closes his reference to him thus: "This horse, although blind, etc." How in the name of common sense could judges give such high honor to an unsound horse—a first-prize roadster and stock horse blind?

Woodville, Ont.

Floor for Horse Stable—Saving Manure.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—If "Excelsior" will make a good, sound, dry foundation of small stones or rough gravel, tamp it well, cover over with three inches of mortar made of lime and pure sand or gravel, grade properly for sewage, leave it to dry perfectly, and then take sound, and seasoned cedar blocks, thoroughly soaked in boiling coal tar and pave the whole stable; fill in between the blocks with fine gravel, and then pour coal tar until the floor will absorb no more; let the whole dry thoroughly, and again go over the floor with boiling tar until it is equally and fully saturated; sprinkle with sand and let completely dry—he will have a good stable floor as long as he lives, durable, waterproof, wholesome, and easily cleaned. Good experienced workmanship is essential.

Dr. Harkness's (Dundas Co.) references to the loss of manure from want of care, being equal to the interest of the mortgage debt of that county, no doubt applies to nearly all Canada. There are many, however, who do use the manure from their stables as well as they can, but who waste or leave buried and untouched the much more valuable "night soil" and poultry manure of their establishments, to promote disease in lieu of good crops.

In this connection permit me to say, that school-trustees should be compelled by law to have at each school a warm, clean, dry earth closet. Soom most farmers and village people follow the example. Dry earth will not freeze, and is the most perfect disinfectant, making phosphate, so to speak, entirely odorless. I use large plank boxes on runners, which a horse draws out of the buildings to the fields, once a year, and a couple of barrels of road dust is sufficient for that time. To the abominable pit system in many cases, is no doubt due the unaccountable outbreaks of diphtheria, and low typhoid fevers in what should be healthy villages and farm houses.

G. LAIDLAW.

Protection Against Dishonesty.

A subscriber in the State of New York sends us a vehement complaint against an Ontario breeder, charging him with having sent him miserable grade scrub sheep for Oxford Downs, for which he had paid him before the shipping of the sheep. He also states that he saw the advertisement in the JOURNAL, and sends us a letter asking its publication, containing very grave charges. We feel that taking this position, unless in the advertising columns, would be assuming in a manner the position of judge as to who was right and who not in a personal matter.

We may here add that the advertisement referred to is not in the JOURNAL now, nor will it re-appear until we are assured that all is right. Although we use all possible care in excluding from our columns advertisements from designing men or that are of a doubtful character, our patrons will readily perceive that it is impossible to decide between the honest and dishonest in stock-keeping until the event proves it self. We have refused advertisements that are running regularly in other agricultural papers in the Dominion, because we knew what they advertised was valueless to our readers.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Clydesdale Horse.

BY D. M'CRÆ, GUELPH, ONT.

(Third Paper.)

THE OLD ENGLISH BLACK HORSE.

The breed from which the modern Shire horse has been chiefly bred was known as the old English Black Horse. From a remote period this breed had been in England. They were large, heavy animals; in color almost always black, but sometimes with white on face and legs. A similar and allied race existed in Europe. It was the prevailing breed of the north of Gaul, and from it have been bred the modern French draught breed. It was scattered over the countries of the Lower Rhine, in Holland and Belgium. It extended through central Germany and was found in other parts of Europe, modified in these different localities by differences of climate, of management and of food. In Flanders the breed reached its greatest development and gained its best reputation. Many importations were made into England from this section. In England the fen-lands of Lincolnshire produced the largest animals, but many were found throughout central and eastern England. These black horses were large and massive, with wide chests, and stout, heavy, hairy limbs on short, upright pasterns. They were slow in gait and often clumsy and ungraceful. The best specimens found their way to the London drays, and there was much competition for the largest animals. The brewers, especially, vied with each other in their turnouts. Many of their horses were immense animals, 17 and 18 hands high, carrying a great carcass loaded with fat, and caparisoned in all the glory of black and polished brass mountings. The aim of the owners was to make a show of size and weight, and the whole aim of the breeders was therefore directed in the same line, while more useful proportions were quite in the background. This has been changed, and there has been built up the Shire, a much more useful and valuable animal. There is no doubt that other types have assisted in the change. The heavy, smart packhorses of Yorkshire were a good sort. The horses of Durham and Northumberland were a lighter, smarter breed, more closely allied to the Scotch breed. Other parts of England had less clumsy animals of the old breed than those bred for the London drays, and from all these has come the present valuable Shire horse. Another useful breed is the

SUFFOLK PUNCH,

found chiefly in the counties of Suffolk, Norfolk and Essex. The first named county has given its name to the breed, while "Punch" comes from the thick-set, punchy form of many of the old breed. They are uniform in color, being chestnut or sorrel with light colored mane and tail. A good, useful breed, valuable for agricultural purposes on medium or light soils. Many of the old breed were not specially handsome, with heavy heads and extra big bellies. They are now much improved, and the modern Suffolk is a handsome animal. They are good pullers, compactly built, round-bodied, short-legged, rather light and round in the bone for the modern type of heavy draught, and sometimes soft in the feet, but excellent agricultural horses. They have not been as widely spread in Britain, and have not attained in America the popularity of the Shire and the Clyde.

THE CLYDESDALE.

Clydesdale—the dale or valley land of the river Clyde—has given its name to the modern breed of Scotch draught horses. It lies in Lanarkshire—is a vale of great natural beauty, with numerous country seats, waterfalls, romantic dells, manufacturing villages, orchards, woods, coal-pits, iron-works, cultivated fields and excellent pasture-lands. The soil overlies beds of limestone, sandstone, and rich deposits of coal. In the upper ward the soil is generally light and friable shading into clay, which is more common in the lower stretches of the dale. It was here in the upper ward of Lanarkshire that the Scotch draught horse first received careful attention, became celebrated, and, as is frequently the case, the district gave its name to the breed. The breed does not seem to have been confined at any time to this locality. Aiton, who wrote in 1810, and who was a practical farmer and horse-breeder, says, "The breed of horses generally, though erroneously, termed the Lanarkshire or Clydesdale breed, is the most valuable breed of draught horses in Britain, and that not only for farming business, but for every description of work where strength, agility, and docility of temper are required, that are anywhere to be met with, and that whether the ground or roads in which they are employed are hilly or more level. They are natives of every county of Scotland south of the Tay, and therefore ought rather to be denominated the Scottish breed of horses. In all the moorish districts, and even where the land is of medium quality, the farmers keep some mares which, besides bringing them a foal every year or second year, perform their ploughing and ordinary light farm work, except a few months in summer while suckling their colts, and at that season farmers of that sort of land have but little work for their horses, while their colts bring them good prices. This mode of rearing young horses does not prevail in Lanarkshire more than in all the southern and middle counties of Scotland, and the breeds of horses in all these counties are much the same as in Lanarkshire."

Prof. David Low, in his Domestic Animals of Great Britain, says, "It is in the Lowlands of Scotland that horses adapted to the heavier labors are reared. Although varying in different districts they have been gradually approaching to a greater uniformity of character. The part of Scotland which had early become the most distinguished for the production of the larger horses for draught, was the county of Lanark, otherwise termed Clydesdale. The coal fields in this district and the rapid growth of manufacturing in Glasgow and vicinity, caused a demand for horses which would combine weight of body with muscular activity. The horses of this breed,

were well fitted for this work, and the breed because the horses were mainly derived from this district, were called the Clydesdale breed." The breed was not, therefore confined to the valley of the Clyde, nor does it seem to have been originated there, but was improved by the breeders of that district, which then became the chief centre for the breed.

The first mention we have in Scotch history of large horses was in a document dated July, 1352, granting to William Earl of Douglas, whose castle was in Clydesdale, a permit to send "ten grooms and ten great horses into Teviotdale," then in possession of the English. The place from which the horses came is not mentioned, but most likely they were from the Douglas estates in Clydesdale. Many of the Scotch knights were from time to time engaged in the wars on the continent, and a large trade was carried on by the Scotch merchants with Flanders, and it is claimed that horses were brought from that section for the improvement of the breed. In the time of Edward I., while Flanders was under the control of the English king, a permit was given to a German merchant to embark a stallion of the Flemish breed on the condition that he would not allow the animal to be sent to Scotland. That Scotland had good horses at this time is known from the fact that they are frequently mentioned amongst the exports of the country. James II. imported horses from Spain and Poland. There is little doubt that when good animals were found in countries nearer and more easily reached, they would be used to improve the native breed. Much has been written, and denied, too, about Flemish horses brought to the valley of the Clyde, but with or without these there was the most careful selection by the breeders of the district.

Rev. D. Ure, writing in 1792 an account of Rutherglen, says, "A high degree of credit is due to the farmers of the upper part of the country for their unremitting endeavors to improve this excellent breed. They pay strict attention to every circumstance respecting the color, the softness and hardness of the hair, the length of the body, breast and shoulders of their breeders—sire and dam. No inducement whatever can lead them to encourage the breed of a horse that is not possessed of the best qualities." The colts were sold at the fairs of Lanark, Carnworth, Glasgow and Rutherglen. The breeding district was principally in the upper part of Clydesdale, where every farmer kept from four to six breeding mares. Some idea of the extent to which breeding was carried on may be gathered from the fact that dealers might be seen driving in to one of these fairs fifty or sixty yearling colts in one lot. The fairs being celebrated and widely known, buyers and sellers came from long distances, and the animals from different sections had all a marked and distinct resemblance, the result of careful breeding and judicious management, forming a fixed type and a distinct breed.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

What Shall I Breed?

This is the question occurring to the minds of not a few of our readers just at this season, when the grass is coming on and the pastures must be made to pay their way. Putting aside the scrub as sheer contraband, the choice is between pure-bred cattle of any of the leading denominations, or highly bred grades. For each of these plans there is much to be said, for it must be admitted that it does not lie with every body to become a breeder of a pure Shorthorn, Hereford or Angus, herd; while it is equally true that if the number of breeders of pure-stock were to very largely increase, what may be called fancy prices

must sustain a corresponding drop. There are some present indications that this result is being quietly but surely worked in Ontario already. Probably the only desirable combination of pure-breds and grades on the same farm is illustrated by the possession of a very select pure-bred stock of females, headed by a good and fashionable bull; and of a distinct herd of grade steers bought as yearlings and turned off to the drover or exported at three years of age. Experience will show it to be unsatisfactory to breed grades and thoroughbreds on the same property. Visitors hardly care to ask which is which, and are apt to carry away a suspicion that there may be "a mix" somewhere. The owner of a large thoroughbred herd has to choose between periodical auctions and casual sales to inquiring visitors and correspondents as a means of keeping himself from being over-stocked. Now auctions are too apt to be of capricious advantage, being dependent on weather, attendance and, to a great extent, on absolute luck. Whether he looks to sales public or private, the enterprising breeder of to-day must be an indefatigable advertiser of himself and his stock. His name must be in all the papers. On printer's ink must be his main reliance. Purchasers of fancy stock are mostly new beginners, and not knowing the ropes or the actual rules, are naturally prone to attend auctions in preference to subjecting themselves to the tender mercies of an experienced vendor. We have known fancy breeders who grew absolutely sick of puffing their wares and of effecting sales by dint of ceaseless effort and correspondence. These men have decided to keep only a staple article—mutton and beef for the butcher. This calls for no puffing and scarcely any advertising. They sell like "hot cakes," if they are good enough. There is always a place for them. They are like brown sugar, flour, and lucifer matches. If the margin of profit is small, so is the risk run, and so is the capital account, while the anxieties are greatly diminished. There is not that excitement or sport in the thing that attaches to roping in a purchaser for a \$300 cow; but there is generally a certainty that on a given day you can sell so many head and at a known price. This is more than the most skilled and popular breeder of fancy cattle can ever say to himself. For the man with 300 acres and a slender bank account the wisest plan is, we think, to accept our suggestion—have a very select herd of thoroughbred cattle, and from thirty to fifty well-bred steers, one-third to be turned off every May, and replaced by a batch of yearlings. This insures the periodical receipt of \$1,000 cash to meet fixed charges; while the casual sales of thoroughbreds may be depended on to keep the farm pot boiling. The prudent economist will always have in sight the wherewithal to meet his liabilities. If a man buys only when he has the money to spare, and sells when he is obliged to do so, he had better deal in staple articles than in fancy stock. A combination of the two, such as we have sketched, is what we think will be found advisable in those cases, lying intermediate between the few breeders at the top of the tree and the poorer farmers who really "go as you please," but mostly at a walk, and have not the capital or enterprise needed for larger operations. Q.

Suggestions.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I hope you will advocate the licensing of stallions, and that all animals kept for hire may have proper inspectors. Let us raise stock fit for any market in the old world even. We cannot compel our neighbors to legislate for us, but we can raise the very best of everything. Now is the time.

Glencoe, Ont.

T. B. ECKTON.

Selecting Judges for the Provincial Exhibition.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—We think your article in the March number on "Selecting Judges for the Provincial Exhibition" is, every word of it, to the point. We earnestly hope that you will not leave the present very *bad* system alone until it is done away with and replaced by the far better one mentioned in the first part of your excellent article.

Guelph, Ont.

D. & O. SORRY.

Veterinary.

Precautionary Hints to Stockowners.

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

(Continued from March.)

It will usually be found that there is a correlation existing between the quality of bone and the development of muscles and sinews. If the canon bones of a horse are found to be round, the tendons behind them will be small, and lack prominence. The quality of this point will act as an index as to the development of the whole tendinous and ligamentous structures of the body; and if they are lacking in development in a subject he will be to some extent predisposed to strains or ruptures of them.

Where the bones and tendons seem deficient, one has to be cautious about confusing fleshiness with muscular development, the efficiency of which is so important in determining the strength of a horse. Many people remark upon a horse's bone as if it gave strength, which is of course a great mistake, as the fragments of the skeleton are passive organs in locomotion, and simply act as levers under the control of the muscles. The muscles, on the other hand, receive their ability to work or are endowed with force by the nervous system. There is no system in the animal economy so mysterious to the observer as that of the nervous organization; and it is particularly interesting in the horse, as his executive ability is determined by it. In horses used for draught purposes weight is a somewhat important factor in giving drawing ability; but it is not unusual to find in a pair of horses one a couple of hundred pounds lighter than the other, and both willing to do their best, yet the lighter horse can pull the most. The same thing may be observed in trials of speed, when the most experienced judges fail in pointing out the fastest horse, although they can select the one with the best mechanical construction, and the one that has the most advantage in that way; yet he is beaten in many cases by a badly put together one, showing that there is a principle underlying everything, that is evident to the senses, and one which is very important in determining a horse's value as a performer.

There is no doubt that a good judge can to a certain extent glean from a horse's appearance evidence of stamina, vigor and vitality; but such knowledge cannot be gained without practical experience, careful thought and observation. It is difficult without a certain standard of excellence to use as a specimen for comparison with, to treat of such a complex piece of vitalized mechanism as the horse.

In order to speak in terms applicable to the different classes of horses, we must expect allowance to be made for the weight of the animal, and the nature of the work for which he is suitable; but in general terms one is safe in saying that a rough-headed, thick-eared, narrow-jawed, loose-throated, fleshy-necked, thick-skinned, harsh-coated, round-boned, low-heeled horse, is not of desirable nervous organization.

Many of the equine species show no lack of nervous activity, but they do not possess the important element, intelligence, which is essential to keep nervous force under proper control, so that it can be utilized to the best advantage, and not dissipated in fretfulness.

There is no doubt that we have in the breadth of the forehead and in the prominence of the surface immediately above it, a fairly reliable means of reading a horse's intelligence. For evidence of good temper and tractability the eye has to be looked to, and we should prefer to find that organ large and prominent, yet with a soft expression.

I have, perhaps, rather wandered from my subject, but, as has been said, there is such correlation existing between the various systems making up the animal economy, that even a consideration of the skeleton unconsciously leads one to think of the nervous system. Even the gait of a horse is largely influenced by the nervous system. A horse of dull disposition or temperament will not move with the same elasticity and lightness of step that one of higher organization will; the lightness of step influencing very materially the amount of concussion experienced by the bones of the limbs, and is a factor, therefore, in controlling the evil results of jarring. Even although a horse has plenty of nervous force, under proper control, he also requires that there shall be a sufficient quantity of blood sent to the nervous centres, and that that blood shall be of proper quality. The breathing and digestive organs are the most important factors in supplying this. The blood in passing through the lungs loses impurities, and takes from the air what it requires to restore its purity. Upon the capacity of the lungs is their ability to perform this important function satisfactorily, mainly dependent; hence the attention necessarily given to the girth of a horse, which is the most reliable index to lung capacity. If a horse has a small girth, violent exertion soon fatigues him, and he becomes languid and depressed, when a call is made upon his endurance. Such an animal is also predisposed to affections of the breathing organs, and a ready victim to heaves, if the usual exciting cause, viz., too much bulky provender, is allowed.

Round-barreled horses are sometimes shallow-chested, and consequently have not a great amount of lung capacity. Such animals pretty readily maintain condition, if not over-taxed, as they are generally good feeders; but there are no animals more predisposed to heaves than those possessing such a formation.

In light horses, too great breadth of chest is not desirable, in fact it is an objection, for it seems to be opposed to the free and rapid action of the blade bones upon the chest, and thus ease of movement is impaired, and grace of action destroyed. The chest can hardly be too deep, in any class of horse, and in horses intended for slow work, breadth is also demanded.

Another very important factor in making up a middle piece that indicates thrift, constitutional vigor, or stamina, is the formation of the false, or hindermost ribs. These ribs should be long, pretty well sprung, and should run well back towards the points of the hips, for a flat-sided, or what is usually called herring-gutted, loose-coupled horse, is seldom a good feeder, especially if hard worked; and if this formation is associated with an excitable, fretful disposition, it is a matter of extreme difficulty to maintain a presentable condition, and ability to endure anything like hard work. Such animals can sometimes be made fat, and even pot-bellied, if not worked, which tends to mask the defect, and mislead the uninitiated or

unwary. No horse is ever pot-bellied if in good, vigorous condition, for it is simply evidence that too much bulky, and often unnutritious food is allowed.

Not infrequently people refuse to buy the lighter grades of horses, if their abdomens happen to be pendulous, as they imagine that it is a defective formation; when in reality by restricting the ration of hay to within reasonable limits, they will soon draw up, and assume a normal and healthy appearance, particularly if they get sufficient exercise and grain. Such a formation and placing of the false ribs is usually associated with well-developed digestive organs, and an inclination to consume a sufficiency of food, and ability to make the best use of it.

Light, middle horses are delicate feeders, subject to scouring on slight provocation, and, if they become fatigued, very prone to more serious digestive derangements. Experience shows that a thin horse, or one without any accumulation of fat in the abdomen surrounding the bowels, is much more subject to scour than a fat one, particularly if pushed beyond a slow pace. Absence of fat renders shaking of the bowels certain to result from rapid movement, and the extensive movements of the contents of the canal excites the peristaltic action of the intestines, thus diarrhoea is brought about; but which usually only lasts while the exertion continues. Assuming that every one acknowledges the danger of breeding from either sires or dams that are suffering from any transmissible ailment, it is surely most irrational and inconsistent to admit unsound stallions into show rings, and in any case give them a prize. Such havoc was found to result from this practice, that in a show of any pretensions in the old country for breeding horses, no animal is admitted to compete for a prize until they have got a certificate of soundness from the examining veterinary surgeons. It is admitted there, as it must be everywhere, that it is impossible for the judges, even if they are capable of determining whether an animal is sound or not, from the limited opportunity which they have in the ring, to make an examination. For instance, a rank roarer, when only moved about gently, might show no evidence of the existing trouble, but if a careful examination were made, and the animal subjected to a searching test by a competent person, there would be slight chance of such an animal receiving unmerited honor, and disseminating a predisposition to disease broadcast. Most breeders consider they are safe from any such danger when they breed from a prize animal, but those who know the lax manner in which awards are made can readily understand how easily they may be deceived.

Breeders should take this matter in hand and use their influence to have the matter righted.

(Concluded.)

The Farm.

If we wish to get full returns from our soils we cannot pay too much attention to their proper fertilization. It is not enough that we manure them highly and sow them early. If they are left lumpy the young grain will not make a good start, and in this respect it is much the same with vegetable as animal life—if the first period of growth is not promising, the results are seldom or ever so satisfactory. On clay lands this is of prime importance, and most of all in the sowing of the finer seeds, as roots, etc. If the labor of a man and team for a day on five acres of ground, spent in pulverizing it, give an increased return of but two bunches of grain to the acre, the time is well spent. Oftentimes the results from the application of man-

ures are disappointing for no other reason than that the grounds where they have been applied have been sown without having been made fine.

The Fifteen Dollar per Bushel Wheat.

The pair of bloodhounds engaged in the sale of this wheat are still on the chase after simple-minded farmers, and we fear very much that every now and then they bring one to bay. The echoes of their baying had scarcely died away in Wentworth when they were heard in Halton and Peel, and where they are now we cannot tell, but we have no reason to believe that they will turn aside from their prey until locked up in some prison kennel by the strong arm of the law.

That story of a government charter with a capital stock of \$35,000, and bonds deposited with the Ontario Government to that amount, is the siren song that catches the ear of the farmer, and so bewitches him that he becomes a running "Amok." We have good authority for saying that the latter part of it is an intamous falsehood, that they have not one cent deposited with the Government as bonds. And so the farmers who have been caged will find to their sorrow, when pay day comes, let them believe it or not as they please in the meantime.

It seems a delightful arrangement to get pay from the company one month before they, the farmers, have to pay their matured notes. The latter do not seem to perceive that virtually they have paid the very moment the note they sign has been handed to the company. Just let them try to negotiate the company's bonds and how much will they get for them? If they (the company) have the deposit they claim with the Government, there would be no difficulty in negotiating their bonds.

Once more we warn our farmers—have nothing at all to do with the fifteen dollar per bushel wheat men. The very mention of fifteen dollars per bushel for seed wheat should be the signal for ordering them off the premises. If once they get a hold, they will not let go. They hang on with the tenacity of a weazel, and would rather be throttled than give up the prey. They are very oily-tongued gentlemen, and drive a good team, as well they may, getting fifteen dollars a bushel for wheat that has been grown a good while by the Michiganders. For the farmers who have already taken the bait and have been slung out of their native element on the dry bank to flounder, we have a little sympathy; but for such as are caught after having been warned, we shall have none.

A Farmers' Institute for Ontario.

At a meeting of the county of Wentworth Farmers' Institute, held in Hamilton on March 26th, a committee was appointed to take steps to convene a meeting of the president, vice-president and secretary of every farmers' institute in Ontario, with a view to establishing a central body representative of each of these institutes. This committee, of which Mr. Valancy E. Fuller, of Hamilton (president of the Wentworth farmers' institute) is chairman, have issued a circular to each of the institutes, asking them to meet in the Court-house, Adelaide street, Toronto, on Thursday, 28th April. At this meeting papers are to be read and discourses engaged in on the following subjects:

(1) How can the work of the Farmers Institutes be best extended, and made more beneficial to the farmers of Ontario?

(2) What action should be taken to establish a standard of purity for fertilizers, Paris Green, Hellebore, etc., and how can the laws be so framed as to enable farmers to procure these articles unadulterated.

(3) Are the tariffs of classifications of the railroads of Ontario now existing beneficial or prejudicial to the interests of the farmers of Ontario?

(4) In what manner can the butter interests of Canada be raised to the position it ought to occupy?

(5) What steps should be taken to encourage the breeding of horses suitable for the English markets?

In the closing paragraph the farmers are judiciously reminded that "a body of this nature can only be useful so long as it adheres to the objects which it meets to further, it will therefore be the earnest effort of those instrumental in convening the meeting to confine its scope to such matters only as actually relate to the welfare of the farmers of Ontario, and should the meeting result in the establishment of a permanent central farmers' institute, to adhere to the principle throughout, believing that only through such a course can such a body be permanently useful." *Party politics* will find no place in the discussions.

This move is certainly one in the right direction. It must commend itself to all unbiased farmers. Farmers, practically, have no organization to represent them as a whole, while all other industries have. It is therefore of the utmost moment to them that this means should be adopted to deliver them from the iron thralldom to which they have been subjected.

We say that, practically, they have no such representative organization. It is true that the Grange promised at one time to take this position, but it is equally true that for some reason or other it has receded from it through decline, whether brought about by internal defects in its organization, or imprudent dabbling in side issues, or the cumbrousness of the machinery, or through some other cause, we do not stay here to decide. We know of no simpler method of affecting the object desired than through the medium of the Institutes. Through them we can easily get complete organization, as they can easily be made to embrace every electoral district in the Province, and so secure complete representation.

The farmers will therefore be educated as in the ordinary meetings of the Grange, and their rights protected through the medium of the central body. Any oppression attempted on the part of other organizations can be lifted, and even railway corporations can be taught that there is one body in the country sufficiently powerful to curb them with bit and bridle.

That there is a wide desire for such representative organization cannot for a moment be doubted. We have just received a paper from a farmers' institute in the county of Renfrew embodying resolutions asking in substance what the committee of the Wentworth Farmers' Institute is asking.

Before this paper reaches our readers this meeting will have been held. Whatever may be the outcome, it will not fail through indifference on our part, as we are minded to leave no stone unturned to make it a success.

Report of the Judges on Prize Farms for 1886.

(Continued from April)

HYDE PARK FARM,

owned by Mr. Jas. Fisher, was reached by 11:30 a.m. on the morning of June 22d, Mr. Fisher having met us at the station. It is situated on the gravel road from London to Sarnia, in the township of London, and five miles to the N.E. of the former city. The farm consists of 100 acres, the balance of the 320 acres owned by Mr. Fisher being located elsewhere. It was taken in hand by its present owner some 28 years ago, and bringing with him to the farm that quickness and precision which characterizes men used to railway life, he has transformed it into a country home of which

any proprietor might feel justly proud. It has been deemed worthy of a prominent place in that collection of sketches sent over by the county of Middlesex to the Intercolonial Exhibition, London, to assist in driving away the haze that dims the vision of so many of the men of that land regarding the character of our climate and its products.

The soil of this farm is a clay loam, in some parts approaching a sandy loam, and resting on a sub-soil of clay, and is drained where required with tiles laid 18 inches and two feet deep. A main drain of six-inch tiles goes from house to barnyard, and thence on one-fourth of a mile, receiving the gatherings of other drains in its course.

The fences are all board and cedar post that surround the fields, except the paling in front of buildings; they consist of four boards and are not capped, which is perhaps a gain; these divide the farm into fields of six acres. These small fields have certain advantages till we come to count the cost of fencing, which leads us to consider.

The gates of this farm are a decided feature; there are 30 of them on the farm, sometimes three attached to one post, and are situated mostly at the corners of the fields, all painted with the national colors, red, white and blue, and numbered with the number of acres in the field upon them. In the item of gates Mr. Fisher reigns supreme amongst all competitors.

Eight acres of protected bush, beech and maple, are in the rear, reached by the lane running back through the centre of the farm, and some tree planting has been done.

There is a unity and oneness of design about the laying out of Hyde Park that is very pleasing: almost everything about it is *square*. The house, an attractive two-story brick building, 30x40, with rear 20x30, sits in the rear of a square plot, a cosy little yard. It is very complete in internal arrangements, having all the conveniences of modern requirements, as winter and summer kitchen, superior cellars, bath-room, study, etc. In the rear of the house is a small square leading to houses, No. 1, for ashes; No. 2, for boiler and coal; No. 3, for conveyances, and No. 4 (facing the lane) the carpenter's shop. Crossing to the barn from the outbuildings in the form of a quadrangle enclose a square, the doors of the buildings being all numbered, ending with the numerals 25. The fields are square, two tiers of them on each side of the lane and also four in depth. One would certainly suppose a civil engineer had laid out this farm. The outbuildings were mostly erected some time ago, and although they are complete of the kind, providing a shelter for every hoof about the place as well as every implement, and although they comprise a good basement stable and a number of unique and original things in design, yet are not equal in convenience to some that are more modern. Here a windmill is at work forcing the water into a packed overground reservoir, whence supplies are drawn as wanted, and we saw a convenient arrangement, of the railroad order, for loading and unloading cattle, what every stock owner might easily possess. The roofs of all the outbuildings had recently been covered with coal tar. The expense was slight it seems, bringing this mode of protecting roofs within reach of any farmer. The whole took but six barrels, at \$2 a barrel, and was applied for \$5, the boiled tar being carried to the operator.

Six working horses are kept. The pastured cattle—Shorthorns, numbered 24 head, with the imported Sittytown bred bull, Scottish Victor, at their head. The grades numbered 14 head, and the flock of pure Lincoln sheep 35 head, and these are all fed in winter with the outcome of the farm, except that some bran is bought.

The method of cultivation at Hyde Park is thorough and good, with a succession somewhat as follows: The hay fields are usually mowed but two years, and after the mowing of the second year, ploughed, and the portion intended for wheat top-dressed with manure, previously piled; the wheat and barley ground usually seeded to grass; oats follow hay and precede roots, which are succeeded by barley. Usually the area of wheat is 12 acres, oats 12, barley 6, peas 6 and roots 6. The wheat averages 30 bushels to the acre though 47 have been obtained. One field of oats is usually chafed from the sheaf and mixed with bran for the cows and meal for the fat cattle.

This farm ranks well in its almost every feature, and though it occupies a prominent place in the contest of the eighteen, we did not consider it equal to the first three, nor quite equal to the two farms which follow them so closely.

The return drive from Hyde Park farm to London is a very pretty one, almost facing as it does the ascending undulations of Westminster, far away over the deep wide valley of the Thames, every alternate clearing and woodland on those pretty inclines denoting the home of some Canadian farmer who is building his competency far away from the distracting rental of chating landlord. It is sure, one of the glories of Ontario, that almost every acre of its soil is tilled by the men who own it. A rapid ride on the Grand Trunk Railway brought us to Chatham, built as it is in a country so productive naturally, that this condition seems to re-act adversely to highest attainment in the art of farming. A country of uncommon fertility seldom produces the most perfect type of farmers, no more than opportunities full and ample produce the prize-men of the university course. We reached this town, almost a city, at 8 p.m., and at a hotel in the city awaited a little impatiently for the morrow's sun. At 5 a.m. on the 23rd, our youthful Jehu was hurrying us down the left bank of the Thames to

THE PINE GROVE FARM,

comprising 230 acres, and owned by Mr. Alexander Dolson, who has farmed it for many years. With the soothing south wind fanning the cheek, and the song of happy bird ascending from every shrub and bush, and the beautiful prospect of crops pushing ahead under the impulse of the late rains, farm judging didn't seem so much of a cross. As soon as Mr. Dolson was ready we carefully surveyed the farm. It runs back from the river road, virtually from the river, some three-quarters of a mile, crossing for a short distance the railway track to a concession in the rear, and is divided as far back as the 20 acres of maple and beech woodland on one corner in the rear by a private road. The fields are large and are on either side of this lane. The buildings are on the front and are nearer to one corner. The other corner, to the extent of 23 acres, contains apple orchard in the prime stage of bearing, and along one border of this is a close fenced passage by which the stock have access to the river by way of a culvert cut under the Thames road.

The striking features of this farm are the luxuriance and beauty of its hedges and walls of living trees on its front, the thriving orchard, that seems as if it had to grow whether or no in its pastured domain, its system of drains, open and closed, and the luxuriance of the crops that were feeding on the natural fatness of the soil of the singular deposit that characterizes this section.

Mr. Dolson planted a wall of trees, cedar and pine, some 20 years ago, transplanting them from their native home in the Rondeau country, and now they are nearly, if not altogether, 50 feet in height. The cedar hedges that enclose the grounds in front of the dwelling are 7 feet broad, level in front, and trimmed like a roof on the sides. Within this wall of living masonry Mr. Dolson has given full play to his natural genius for producing unique and fantastic things from the products of the soil, lesser hedges and groups of shrubs and flower beds intermingling as he pleased. At each corner of the dwelling are two immense baronial piles as it were, round towers of living cedar, trimmed within and without as smoothly as the walls of a castle, and forming within what some would be tempted to call a charming bower for whisperings which two alone may hear.

The orchard produced 1,300 barrels of apples in 1885, which netted, after the picking, \$1.20 per barrel.

As the land slopes some 7 feet in depth from front to rear of the farm, and as it has been drained into the river, an immense ditch 12 feet deep at its mouth has been run from the river back along the lane on one side, and three wide open ditches have been cut transversely running into this. Into these open the under-drains, of which 40,000 tiles have already been laid, the mains being 8 inches, the sub-mains 6 inches, and the laterals 4 inches in diameter. The laterals are laid 4 feet deep and 100 feet apart.

The soil is a blackish clay loam, the sub-soil only a little heavier, and porous, and of great fertility, as was evidenced by the strong vigorous crops that were growing upon it, consisting of corn, hay, beans, oats, barley, lying down in a tangle, beans and winter wheat, although the latter for some reason had given way last winter and had been partly re-sown.

The rotation on this farm may be thus described:—The fall wheat ground is seeded with timothy and clover, but no timothy is sown on what is intended to be ploughed under. The first year a crop of hay is cut,

and later a crop of clover for seed, after which the ground is ploughed for wheat, being sometimes sown again to hay. Usually the wheat stubble of this second growing is manured and sown to barley. The barley stubble is ploughed and cultivated and sown to wheat, and seeded again with timothy and clover, which are cut for two years, and followed with beans and corn, the crops used for cleaning the land. Oats are grown only for horses, and corn is fed to them also. Wheat, clover seed, barley and timothy hay are sold, and immense crops of these are sometimes raised, while uniformly good ones are reaped from year to year. Seventy acres of wheat are generally grown; 18 to 30 acres of barley; 12 to 15 acres of corn. The usual wheat yield is 30 bushels per acre; 40 to 50 bushels barley; 70 to 80 bushels shelled corn; 5 to 6 bushels red clover seed; 25 to 40 bushels beans. The stock is limited. From three to four span of working horses are kept and some colts, and but a few head of cattle—other cattle being taken in and wintered at \$10 per head, which enables Mr. Dolson to convert his immense quantities of straw into manure.

The dwelling house is a very good one, and very suitable to the wants of the farm. The barns are large over ground buildings, not very ornamental, but with their 20 and 30 feet posts hold an immense amount of grain. The water is supplied from wells.

The garden is large and well filled with vegetables and fruits as that of an epicure.

There could be no doubt as to the large profits arising from this farm, whatever difference of opinion there might be as to the style of farming in its adaptability to the country at large. Selling wheat in large quantities, and barley, hay, clover seed and beans from year to year may do in the township of Raleigh, but it will not last long in the 600 or 700 townships of Ontario. Mr. Dolson assured us that under this system his land was more productive than 25 years ago—a statement that we have mused over a good deal since, but there is no denying it, the earth does here produce by handfuls.

We were now ready for breakfast, which we took in with as much zest as we had taken in this productive farm, and by 9.10 a.m. were enjoying a rapid return ride to London, on the Grand Trunk Railway. "What a magnificent region for growing heavy stock!" were the words that were on the lips of each so soon as we were seated in the car, and "isn't it singular that so little of it is grown here?" The explanation no doubt lies in this: that the earth produces so plentifully that the farmers are content to let well enough alone. But it does seem a pity to drive a willing horse to death, just because of his willingness to go. The plant food elements, of the township of Raleigh even, will not last for ever on the present system of working. We concluded that the prize-winner in a sweepstakes contest must follow a system that will make the land better, rather than the reverse.

(To be continued.)

A Scheme of Organization for Farmers.

BY H. GLAZEBROOK, SIMCOE, ONT.

Every other trade and profession except the farmers has an organization for the purpose of protecting and promoting its special interests, yet the farming interest is far and away the most important in the country, and in no other interest are organization and co-operation more necessary or more likely to be followed by material effects, on the prosperity, both of that interest and of the whole country. It appears to me that if organization and co-operation among the farmers could be brought about, there would be no necessity for them to ask or wish for any assistance from the Government, especially as any money granted by the Government must eventually come out of their own pockets. But they would be perfectly able to accomplish all they can desire for themselves. As a means to that end I would offer the following suggestions:

1. That the farmers in each school section in the Dominion should form themselves into a farmer's club for that section, and should elect a president, vice-president, secretary and treasurer, and should hold meetings as often as requisite at the school-house of the section.

2. That the presidents of all the clubs in each county should form a General Council of a Farmers' Association for the county, and should elect a president, vice-president, secretary and treasurer, also a small

number (say one for each township) to form a managing committee for that county, and should hold meetings as often as requisite in the most convenient place in the county.

3. That the managing committee in each county should elect a president, vice-president, secretary and treasurer, and should take steps to establish a central office in some place most convenient to the whole county, and employ some one (distinct from the secretary of the managing committee) as central secretary, and should hold meetings as often as requisite, in the most convenient place in the county.

4. That the president of all the managing committees in the Dominion should form a farmers' convention for the whole Dominion, and should elect a president, vice-president, secretary and treasurer, and should hold a meeting once in each year, for the purpose of consulting as to the best means of promoting the farmers' interests, in the most convenient place for the whole Dominion.

5. That the object of the organization should be to secure united action among the farmers for any purpose calculated to promote their interests.

6. That the object of the organization should be promoted in the clubs with regard to improving the breeding of stock. In cattle, by the members of each club dividing themselves into groups of ten men in each group, consisting of those living nearest together, and each group purchasing a thoroughbred bull by subscription among themselves, one of the group being chosen to keep the bull, having the service for his own stock free, and that the other men pay for service, to remunerate him for keeping it; and each of the other men having the right of service for five head at one dollar each. Each member on paying his share of the price of the bull belonging to his own group being given five service tickets, like this, signed by the president of the club, and renewed each year:

Farmers' Association of _____ County _____
Club No. _____, School section No. _____, Township of _____.
This card entitles the holder, on payment of one dollar, to the service of bull No. _____, kept by Mr. _____, lot _____, con. _____, township of _____, for one cow.

Signed. _____ President Club No. _____

Thus, if there were fifty men in a club, there should be five bulls, which could of course be of five different breeds, if the members wished; and if any of the members wished to use a bull belonging to some other group than his own, either in his own or in some other club, all he would have to do would be to exchange service tickets with some one of the group whose bull he wished to use. Thus practically every man would have the choice of every bull within reach, only being limited by the distance he chose to take his stock. The same system could be adopted in sheep and pigs, but it might perhaps be necessary for each group to purchase two or more rams if many sheep were kept by the members; the same system of service tickets could be adopted, and the fee regulated to whatever the members chose.

In horses, by the members in each club purchasing a stud horse by subscription among themselves, one of the club being chosen to keep the horse, having the horse for his own stock free, and what the other members pay for service to remunerate him for keeping it; and each of the other members having the right of service for two head at five dollars each, and of course having service-tickets accordingly. In this case, also, exchanges of service tickets could be made between members of one club and another, if desired.

With regard to diffusing useful information, by the members in each club subscribing for good agricultural journals, and so getting the benefit of the reduction always made by them for a number of subscribers together.

By the members in each club purchasing by subscription among themselves a good library of standard works on agriculture and other subjects, which could be kept at the school-house, and taken out by the members in turn. By occasional meetings for the discussion of agricultural subjects. By the members in each club putting up in the most convenient place in the section a notice board, consisting of a couple of cedar posts about eight feet high and six feet apart, with a few boards nailed across so as to make a notice board of about four feet by five feet, for the secretary to post any notices sent to him with regard to lessening the expenses of their business.

By the members in each club purchasing by subscription among themselves, a threshing machine and

engine, and employing competent men at daily wages to drive them, by which means each member would only have to pay the daily wages of the men employed for the time it took to thrash his grain, instead of so much per bushel as at present, which amounts to more than twice as much; or if they continued to pay by the bushel, whatever surplus remained at the end of the year, after paying expenses, could be divided in proportion to the interest each man had in the machine and engine, and would very soon repay them both first cost and interest. In this it would be fair that each member should subscribe to purchase the machine and engine in proportion to the number of acres he holds. The members could draw lots for three men to use the machine each year, or they could arrange that in some other way among themselves. The men employed should receive their orders as to where to go each day from the president of the club, and should generally be under his direction. The members should pay whatever their threshing account amounts to, to the treasurer of the club, who should pay the daily wages of the men employed, and any other expenses connected with the maintenance of the machine and engine out of such funds.

By the members in each club setting up by subscription among themselves in the most convenient place in the section, a hay-scale, inclosed in a locked shed, to which each member should have a key, so that he could at any time weigh anything he wished to. It should, if possible, be placed near the house of one of the members, who should be entitled to charge a small fee, if required to give a certificate of the weight of any article, but each member should be entitled to weigh anything he wished at any time for himself without paying any fee.

(To be Continued.)

Hay Loaders.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As an agricultural journal is the proper source for farmers to get information pertaining to all that should benefit them in any way relative to seeds, stock or agricultural implements, we kindly desire the privilege of expressing through the columns of your valuable JOURNAL our experience with one of the hay loaders with rake attachment, manufactured by Messrs. Wilson & Co., of Hamilton. We believe it to be our duty to speak candidly of this loader in recommending it to the farmers of Canada, as we have no hesitation in saying that it is one of the most valuable implements any farmer can come in possession of, both as regards the saving of much hard labor and valuable time during the harvesting season. We purchased one of Messrs. Wilson & Co.'s loaders last season and used it in hay, barley and oats, and found it to work satisfactorily in every particular. We are sure that any farmer, after using one, would keenly feel the loss of it if he were required to part with it. When these machines are well constructed they will last, with reasonable care, longer than most any other implement used upon the farm. While it is not our intention to advertise Mr. Wilson's business, we believe, after giving the loader so thorough a test, and its working so much better than we anticipated, we would not be doing our duty by the farmer if we did not favorably speak of it through a popular agricultural journal, when so many worthless agricultural implements of various kinds are being crowded upon the farmer from every side. If farmers feel and know that nothing but thoroughly tested articles are only advertised and spoken of through our agricultural journals, they will more fully appreciate the journals that advocate their interests.

J. W. ANDERSON.

E. A. BRICKMAN.

Rossmore, Ont., March 16, 1887.

Our farmers must take this letter for what it is worth. We have had no experience with hay-loaders ourselves, but now that the subject has been brought up in our columns we will mention two objections that we have urged against their use. (1) The end of the winrow near the fence cannot be taken up; (2) in raking barley with the horse-rake, is there not a good deal of the snapping of the head in the operation? Will either of those gentlemen give his experience briefly in the next issue of the JOURNAL in reference to those points? Also, what is meant by the rake attachment?

Destroying Wild Oats.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I saw in the April number that "Inquirer" asks for "the best means of exterminating wild oats." As I have had some experience "on that line," and have been successful, I would advise preparing the soil and seed with timothy or clover, or both, and cut the first crop before the oats are ripe enough to grow. And if they appear the second time (but are not likely to), serve same way. Then be sure and sow clean seed and you will not be troubled with wild oats.

WM. R. ALLISON.

Dunbar.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—"Inquirer" wishes to know the best means of exterminating wild oats, and having had some experience in the matter, will give him what I consider the best methods of eradicating them. The seed of wild oats is possessed of wonderful vitality. It will lie an unknown time in the soil, and when brought into favorable condition will germinate and grow. This fact points to the only practical method for their destruction—get them to grow. If a wild oat sprout and grows an inch or two, and is then ploughed under, that is the last of it. Thorough summer fallowing is the only means of conquering it.

The best time to commence would be as soon as the harvest is off in the fall, going over the stubble with a gang-plough; or if the soil is light a heavy harrow would do, to lightly cover those on the surface. And when they are well sprouted plough them under lightly, which will be all that can be done in the fall. Next summer plough the ground as early and as often as possible, but that will have to be regulated by the growth. It can be ploughed oftener in a wet growing season.

That is the only practical method of extermination, and to succeed it will have to be done thoroughly. To clean the soil and keep it clean, sow plenty of clover, practice thorough cultivation, and short rotations.

GEO. BINNIE.

County Grey, Ont.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In reply to a question by a subscriber regarding methods to use for destroying wild oats, the following have been pursued with success:

1. Sow barley. This ripens before the oats, and being cut early, will prevent the oats seeding. Follow by a green crop well hoed.
2. Sow barley and seed down with clover; this prevents the oats ripening for two years, and may be followed with fall wheat or turnips.
3. Gang-plough in the fall; in a short time plough well, and in the spring harrow or cultivate so as to encourage the oats to sprout; then cultivate and sow with barley.

PROF. J. HOVES PANTON.

Guelph, April 19, 1887.

The Dairy.

In a paper read at the dairy convention of the county of Huntingdon, in February last, we took the ground that if lands were properly tilled, meat and dairy products might be sold from them for an indefinite length of time, and their fertility rather increased than diminished, and this without the aid of artificial manures, although we believed that these had their time and place. Our friend, Mr. E. Barnard, Director of Agriculture for the province of Quebec, took exception to our position, and argued that while this might hold good of some lands, it would not in regard to all. We supported our position in reference to the fact that nature unaided increased her stores of fertility, and that there was but one testimony in reference to farms that were stocked to their full capacity—that is, that in every instance their fertility steadily improved. We find this position well supported by a leader in the *Country Gentleman*, of April 7th. The writer refers to China, isolated from other countries since pre-modern times, and still able

at this date to support a population of 550,000,000. Simply taking care of the manures that we have, and making the most of them, will work wonders in the increase of fertility.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Selection and Summer Care of Milking Cows.

BY PROF. JAS. W. ROBERTSON, ONTARIO AGRICULTURAL COLLEGE.

The fair ground is still too often used as a dumping place on which to weed out the poor milkers of the herd, only to have them transplanted in all their worthlessness on some other farm. Would it not be better for every dairyman to weed out his poor unprofitable milkers by fattening them for the block, and not by selling into another herd?

In selecting a cow for milking purposes, a careful observation of certain "points" will guide the buyer in making a good choice. Where a reliable record of the animal's past performance may be examined, it is of unquestionable use in estimating her milk producing value. Descent from stock with creditable records is worth much. But so much depends upon the individuality of the animal, that these values can best be rated in conjunction with their apparent evidences in her body.

When buying cows on a fair ground the animals have to be valued by their appearance. There are some general characteristics peculiar to all animals of individual merit in all the milking breeds. A coarse, rough bullish appearance is *not* one of these. Size is a matter of secondary consequence. Temperament is a matter of prime importance.

Cattle as well as horses may be classified in temperament as "nervous" and "lymphatic." "The nervous" in the cow is indicative of good milking power; in the horse it is associated with speed and action. The "lymphatic" in the cow means a tendency to lay on beef; in the horse it is typified in draught and heavy weights.

Milk and butter are essentially the products of nervous force. Hence a good milker should have abundant nerve power. That does not necessarily imply nervousness. Her organs are to be considered as so much nervous machinery for the accomplishment of a given end. The purpose of her life is to make the largest possible quantity of the best milk out of the least consumption of feed. That faculty will generally be revealed in what are called the "points" of the animal. Specifically these might be described in the following order, which begins with the head and follows around the outline of the animal's body as viewed from her side. The model cow should have a broad forehead—a wide poll. The seat of nervous power is in the brain, and the room for that organ should be ample. Her eyes should be prominent, bright and mild looking. All the better is the indication if they stand out so well as to give the face a dished shape—the hollow up and down the face. Such eyes promise vigorous staying nerve-power, if their owner be well used. Fairly large and open nostrils should be looked for, but a cow with constantly gaping nostrils is a little too expensive to keep. The face should be rather long, lean and clean-cut. An instructive model for comparison is the face of the blood horse. Smooth, wavy horns and fine ears usually accompany the delicately yet strongly-strung nervous organization we seek. The head will be small in proportion to the weight of the body, and tapering in fine lines. The neck should reveal a strong jointure between the backbone (containing the spinal cord) and the skull. There is an influential

nervous connection from the spine to the uterus and the udder. A fine tapering neck, with no superfluous flesh, is desirable. The top of the shoulder had better be sharp than broad. In a young cow a hollow back is often indicative of weakness; a slightly arched or straight back is preferable. The loin should be wide, flat and thin. The pelvis (the bony framework whereby the hind legs are attached to the backbone for locomotion) should be broad, large and somewhat arched. A hollow pelvis is the omen of danger from milk fever or an early breakdown. The ham will be in-sloping and in-hollowing, leaving lots of udder-room. The shape is merely indicative of the tendency of the animal. The pitch or symmetry of the udder's shape may be ignored except in the case of a fancy or prize animal. The extent of the udder's surface of attachment to the body is all important. It is generally a measure of the arterial and nervous activity in the milk secreting glands. Taking a side view of a cow in full milk, the line of connection or the line of absorption will be the direct measure from the upper to the lower point of attachment between the udder and the body. The longer that line is, the better is that "point." A fleshy udder is not wanted. The milk-veins are mostly in size and prominence proportionate to the flow of venous blood from the udder, consequently the larger the better. Good barrel room is required to hold and permit the proper digestion of abundance of suitable feed. In such a cow the energy of digestion is allied to the energy of milk secretion. The chest should be deep, leaving full play for the heart and lungs—these vital organs for blood circulation and purification. Good blood promotes the activity and energy of the nervous system, and thus stimulates the secretion of milk. Of course no careful buyer will "pass" a cow without a trial of her teats. While a cow with one blind teat may yield as much or more milk than some other cows having no such blemish, it does not therefore follow that she will be as good a milker as though her udder were sound in all its quarters. Many other "points" might be mentioned, some of them important, such as a soft, mellow skin, fine silky hair, etc., but enough has been written to help the ordinary farmer in the selection of a good milker. The form of a good milking cow might be briefly described as tending to the wedge shape from three points of view; as looked at from the front rather sharp on the top of the shoulder and widening to the chest; as looked at along the back from behind, broad and wide across the pelvis and narrowing towards the shoulder; as seen from the side, deep from the rump to the lower line of the udder and lighter in the fore-quarters. By the time the grass comes the milking cows throughout the province are usually in poor condition of body; and whether just calved or milking for some months, they eagerly relish the first green bite. Common practice seems to commend a sudden and complete change from stable-feeding to pasture. The "duty" of neglecting to closely observe and think and act can alone be urged in excuse of the abruptness insisted upon. What sticklers for such "duty" many of our farmers are! Their "dutifulness" occasionally reminds me of the Highland Scotchman's memory—a grand memory for forgetting. A gradual change from the fodder, grain and root feed of the spring to the succulent, appetizing herbage cropped by the cow herself from the fields, is best both for the health of the animal and her milk yield. That can best be accomplished by a continuance of stable feeding night and morning, supplemented by day pasturage. Admission to the grass fields too early in the season is bad for the pasture, if good for the

cow. Good grass is admittedly the very best feed for milk production, and milking cows should not be stinted. Then, after there is sufficient grass for maintenance, a fair allowance of bran or grain should be given morning and evening. Besides the immediate gain from the increased milk secretion thus induced, there is decided after advantage. Any extra and suitable feed that increases the yield of milk and maintains that increase for a few weeks, thereby fits the cow for doing better with her ordinary feed afterwards, even when the extra feed has been withheld. Green rye fodder is early available, and when fed after being wilted one day is safe and satisfactory. Oats and peas are better still. Oats and vetches are very serviceable. Two crops during the summer may be cut from the one sowing. A good plan is to sow small plots near the stable or milking-yard, at different times. A prolonged ripening to meet the needs of the herd is thus provided for. After their season no more economical feed can be given than corn stalks. However, in most parts of the province these are not ready for use before the middle of August. Every farmer should have some provision for his herd before the dry weather burns up his pastures. The extra yield of milk from supplementary green feed will largely pay for the extra cost at the time, and the keeping of the herd up to the full flow while pastures are bare, will enable them to give a much larger yield when feed is abundant on the stubble fields and aftermath. Wheat bran is excellent and profitable, and almost satisfactorily takes the place of green feed. Its use saves the troublesome and expensive work of handling so much weight. The cost involved in the labor of partial soiling in early summer and autumn is the only objection to its being recommended for general adoption throughout Ontario.

For many years it has been recognized by observant and thoughtful dairymen that when milking cows were denied access to salt the quantity and quality of the milk yield were at once affected. A little investigation, more to define into accuracy the facts already known than to bring to light any new ideas, was undertaken with eleven cows, during last summer. Until August 15th these cows had access to salt at will in their pasture-fields. Then all salt was removed from places within their reach. Small boxes were procured for attachment to the mangers of the stable in which the cows were tied twice a day for milking. The cows were divided into four groups. Groups one and two (five cows) received salt. In the boxes before the six cows of groups three and four a supply of common barrel salt was placed. No change was made for twelve days. Then salt was placed before the three cows of group number one, and still continued to the three animals of group number four. No salt was allowed to groups numbers two and three. This treatment was continued for a like period. The cows of group number four could take as much salt as they liked twice a day during both periods. In every other respect all the cows received similar treatment. The feed was pasture supplemented by a feed of green corn fodder twice a day.

The following are the results from observation and the record: The average immediate loss (taking a period of two days after each change) was 17½ per cent. in the weight of the milk yield when salt was withheld. The total average loss in the weight of milk yield from the eight cows of groups Nos. 1, 2 and 3 which were insufficiently or irregularly salted, was 14½ per cent. for the whole period. There was no loss in the weight of the milk from the cows of group number four, which had access to salt daily during the same period.

It was required that the writer should leave for England before the experiment was nearly completed. Still, I am safe in drawing the conclusion that the irregular and insufficient salting of cows is a cause which lessens their production of milk. Just *how* the cause brings about the result I do not yet know.

The quality of the milk was examined. For butter making the milk was set at an average temperature of 86° Fah., and cooled to under 42° Fah. Both kinds were treated alike as to daily temperature and time set. The average of results from milk when cows had access to salt regularly was 3.37 lbs. of butter per 100 lbs. of milk; and when cows had no access to salt for periods of twelve days, 3.26 lbs. of butter per 100 lbs. milk.

Cans of milk from the cows taking salt, and from those from which salt had been withheld, were placed under like conditions. The milk was set as usual for cream. Then after 24 hours it was exposed to the ordinary temperature of the room, about 65° Fah. The milk from the cows not receiving salt was perceptibly sour to the taste and smell 24 hours sooner than that from cows taking salt. Moreover, an easily distinguishable difference in the flavor and "fulness" of taste, in favor of the salt used samples was at once detected by all to whom the comparison was submitted. The conclusion drawn is that the irregular or insufficient salting of cows leave their milk not so easily kept sweet for supplying to cheese factories. The cows having a continuous supply of salt consumed on the average one quarter of a pound per head per day. The exposure of rock salt to milking cows is evidently not sufficient. The cow's palate may be readily satisfied before she has licked off enough for her system's needs. The cows from which salt had been withheld for twelve days were too greedy for it when supplied. They each licked enough to make their milk taste salty. The preferable plan, and one which leaves forgetfulness less chance for being wasteful, is to have a protected trough or salt-box from which the animals may help themselves as disposed. The religious regularity implied by a salting only on Sunday afternoons had better be abandoned, for the cow's sake, if not for her owner's.

An abundant supply of water—and pure water only—should be where milking cows may drink freely a number of times a day. Milking should be performed at regular intervals of time, and only where the surrounding air is pure. Milk is so much the product of nervous operation that any undue excitement, no matter how induced, lessens the milk supply and injures its quality. The kind and gentle treatment of his cows by the sensible dairyman is one source of his profit. Were the present herds of milking cows in Ontario but properly stabled and fed and watered and salted and handled, there would be during the summer of 1887 an increase of not less than 25 per cent. in their milk returns, and that at no extra cost to their owners.

When to Stop Churning.

From that very full and comprehensive treatise on scientific butter-making, by Mr. H. Lynch, Ottawa, just issued, and which should be in the hands of every farmer, we glean the following:

"There is a stage in the churning process, at which the objectionable butter milk, and the objectionable matter which butter milk contains, may be quite fully removed, and at which the salt may be very evenly incorporated with the butter, without injury to the grain of the butter. That stage is when the butter is yet in a granular or pebble form.

"When butter first 'comes' it is in small specks, throughout the whole body of the cream. The continued agitation of churning causes these specks to unite to

form larger particles, these again to join; this process repeating itself until the butter is in large lumps. Now, while the newly churned butter is still in a granular form—that is, like seeds of grain in size—the churning is discontinued. The butter has not yet closed within itself a large proportion of butter-milk, and it is yet in a granular or pebbled form, just adapted for the mixing in of the salt.

"There are now two ways to know when the churning should be stopped. One may examine the appearance of the butter, by removing the cover. The indication of finish is the appearance of the butter on the surface of the milk, in a pebbled mass. Or, one may partially remove the stopple, and allow the milk to flow out into a strainer. If the milk is thick and still full of specks of butter, it is evidence that the churning has not sufficiently advanced. If, on the other hand, the milk is thin and watery, comparatively free from butter grains, and drains freely through a cloth strainer, or a wire strainer (somewhat coarser than a milk strainer), the churning may stop, and the butter can be easily managed. This is one of the very best tests of the time to stop churning.

"When the churning is nearly done, one must proceed very slowly. Sometimes it will take longer than at other times to bring the butter to the right stage of advancement. The reader readily can understand that when the churning conditions are favorable, and the time required for churning is short, greater caution will be necessary than when the butter is slow of coming. Easy churned cream (like the grass cream of summer), a high temperature, or a comparatively small quantity of butter-milk—all tend to hasten the massing together of the butter, and make caution very necessary. Opposite conditions, such as those usual to winter, allow greater time. Experience soon makes one familiar with the action of the butter, and enables one to know when to stop churning without going to the trouble to remove the cover.

"Granular butter can be managed, by one who is experienced, even when it is very fine, say between the size of pin-heads and grains of wheat. The beginner, however, is recommended to allow the churning to advance a few degrees, till the butter is between the size of wheat grains and peas; gradually, as experience is acquired, the churning may be stopped earlier, when the butter granules are finer. The smaller these granules, the more effectually is the butter freed from the butter-milk; but on the other hand the smaller the grains, the more difficult is its management, and the more risk of losing butter, by the loss of unchurned butter, or by the escape of the finer granules in the butter-milk. A little experience will help one to find that happy medium where quality is secured without appreciable loss in quantity."

How Can Creameries be Established?

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL.

SIR,—Since the meeting of the directors of the Ontario Creameries Association, which took place in Toronto last week, application has been made to me from three different sections of the country asking for information as to the mode to be pursued in establishing creameries. I have, for some time, contended that the feeling in the country was ripe for an advancement in quality and quantity of our butter to be made for exportation. Are we to calmly sit by and refuse to lift a finger to assist in improving the quality and reputation of our butter? We are annually losing millions of dollars in Ontario by the production of a miserable article of what is called butter. How this is to be remedied is the question which has agitated the minds of the directors and founders of the Ontario Creameries Association. It has been contended by many, that the Ontario Creameries Association should employ a lecturer to go through the country and hold farmers' meetings, to demonstrate to them how to make a good butter. Unless the lecturer was prepared to instruct empty benches, I fear he would soon find a more congenial occupation. It has also been proposed that an instructor should visit from farm house to farm house, and instruct the good wife wherein her knowledge of the care of the stable, milk and cream, and the making of butter was deficient. We believe that both of these proposals would be fruitless of good results. Unless the farmers of any particular section have of their own accord decided that they desire a system of butter making that will produce a better article of butter, no amount of adver-

tising or persuasion would induce a good meeting. To attack a man's castle, and tell him that his wife does not know all the art of butter making would ensure a speedy and undignified departure of our would-be lecturer. Even at the various exhibitions in the dairy department, when our good wives' butter is "passed" by the judges, it is not the fault of the butter, but the ignorance of the judges. The best educator of the average farmer is his pocket. If you or I can produce an article of butter commanding at all times from five to ten cents a pound in excess of what our neighbor is paid, while our neighbor will not admit that his system is not equally as good as ours, yet, so powerful is the dollar, he will endeavor to follow our system and plan for the sake of procuring that extra five or ten cents per lb. for his butter. The educator which has been so largely and successfully employed in this direction in the United States is the "creamery." Wherever "creameries" have been established for any length of time in the United States, the butter, not from that creamery only, but also from that neighborhood, commands a higher price, owing to its improved quality and keeping properties. "Why should this be the case?" some one asks. In the first place, the art of butter making is not acquired in a day or a month; some will never be good butter makers; they are not possessed of the cleanliness and accuracy required. In the next place, in a farm house, butter is not *the* business nor will the multitudinous demands upon the time and attention of the wives and daughters of the farmers permit the requisite care and attention being given to the care of the milk, cream and the making of the butter that it demands. There is also a lack of uniformity in modes pursued. (Far be it from me to say that excellent butter is not made in many farmers' houses; it is, but I speak of the greater portion of the butter put upon the market.) To ensure the highest prices being paid for export butter, it must possess a uniformity which cannot be claimed in various packages made by many people under many systems and want of systems. To meet this want the Ontario Creameries Association proposes to assist in perfecting the creameries which already exist, and endeavor to establish others throughout the country. How is this to be accomplished? We propose to employ an "Instructor" possessing a thorough knowledge of the production and care of a pure article of milk, the proper mode of creaming it and converting it into a first-class butter. Any person operating a creamery who is experiencing difficulty in his factory can, by applying to Mr. John Hannah, President, Seaforth, and paying the actual travelling expenses and board of the Instructor, have the Instructor visit the factory and ascertain wherein the difficulty is and assist in remedying it.

NEW CREAMERIES.

Whenever any person is anxious to have a creamery established in his neighborhood, and feels that the milk of 300 to 400 cows can be procured, by applying to Mr. John Hannah, President, or any director in his neighborhood (and agreeing to pay the expenses above referred to), it will be arranged that the Instructor visit the locality, address a meeting of those interested; tell them what is necessary in the way of gathering the cream, the expense of and proper class of building to be erected; the extent and nature of the appliances necessary; assist in procuring a proper butter maker and manager; instruct them as to the probable financial return therefrom and the mode of marketing their butter; inspect the creamery before it is started, and place his experience and knowledge at the command of the patrons and butter maker from time to time as his services may be required. Thus we hope to assist in not only improving the quality and uniformity of the butter now being produced at the creameries, but to assist by all means in our power to increase their number and usefulness. The Ontario Creameries Association is a young institution, its field of usefulness is limited by its financial ability to send out instructors. We feel that at least two should be employed, our resources will permit of but one, and until our membership is sufficiently large we feel that we cannot accomplish as much good as we would otherwise do. Every householder in the cities knows how difficult it is to procure really first-class butter at all times. Each householder, every country store keeper, every commission merchant handling butter is interested in our work. If our plan commends itself to you, strengthen our hands by paying the annual fee, \$1, and becoming members of our association. Each director is authorized to receive membership fees, and all applications for establishment of new creameries may be addressed

to any of the following directors: Messrs. John Hannah, Seaforth; George Browning, Ripley; J. T. Brill, Guelph; Aaron Wenger, Aytun; John Sprague, Ameliasburgh; L. F. Garnett, Bethany; F. Millar, Parkhill; R. J. Graham, Belleville; Peter Graham, M. P. L., Legislative Assembly, Toronto; D. Derbyshire Brockville; Mr. Johnson, care of Baillie & Co., produce merchants, Toronto; M. Moyer, Georgetown; Albert Hagar, Ex-M. P. P., Plantagenet; Valancey E. Fuller, Hamilton.

VALANCEY E. FULLER.

"Oaklands," Hamilton, Ont.,
April 2nd, 1887.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

Butter Supplies and Values.

BY JAMES CHEESEMAN, TORONTO.

Our butter supplies and their values during the season of 1886-7 offer farmers some hard and uncomplimentary facts for consideration. Why should the great bulk of Canadian butter be so bad that it has always been impossible for oleomargarine or any other butter substitute to be placed on the market? Artificial butter competes with only high grades of dairy and creamery butter, because competition with low grades means accepting a low price; but so far as I can learn it has never attacked us, as our dairy products were of too low a character. Yet this position is so fully illustrated by the facts of the case that it is only necessary to quote them to secure appreciation.

IMPORTS OF BUTTER AND BUTTERINE INTO GREAT BRITAIN, 1885.

	Pounds.	Value.	Price.
Russia.....	1,656,816	\$ 196,059	12c.
Sweden.....	13,444,838	3,517,433	26 1/2
Norway.....	2,430,054	453,281	22 1/2
Denmark.....	42,289,642	10,305,675	24 1/2
Germany.....	13,346,246	3,882,440	23
Holland.....	121,061,248	21,682,667	18
Belgium.....	6,908,372	1,308,167	20
France.....	50,500,183	12,545,234	25
Italy.....	196,566	45,998	23 1/2
United States..	8,807,602	1,544,768	18
Other European Countries.....	1,008	170	17
Channel Islands..	80,416	18,563	22
Brit. E. Indies...	113,668	19,372	17
Australia.....	165,185	29,379	18
Canada.....	4,040,876	707,723	18
Other British Possessions.....	112	24	21
Total	268,953,876	\$6,256,466	20 1/2 c. a lb.

Ontario makes about 32,000,000 pounds of butter a year, and, according to the returns made to the Bureau of Statistics, this output averaged only 12 1/2 cents per pound, or \$3,900,000. The whole of our creamery butter is little more than 1,250,000 lbs., if so much; but the average price paid for it is about 20c. per lb., or just 7 1/2c. more per lb. than that made by thousands of pairs of hands in I don't know how many different churns, washed and unwashed, colored and uncolored, colored too much or not enough, worked or unworked, and packed away in layers, each one a different shade to the other, and no two of them having the same flavor or keeping qualities. A recent daily paper, the accuracy of whose commercial reports is unquestioned, quotes the following figures for present supplies of butter made in Ontario:

Low grades	14	to 15	cents.
Western	15 1/2	to 17	"
Morrisburg	16	to 21	"
Brockville.....	16	to 20	"
Creamery.....	22	to 25	"

How long shall we continue to allow such a difference as 11c. per pound to exist between the best and poorest quality of butter? We have only thirty-five creameries in Ontario at present, and these make less than four per cent. of the provincial product, but they earn over eight per cent. of the butter revenue.

We have to make up our minds to extend the working season for creameries, so as to include the winter months. It has been found necessary in the United States where the same climatic conditions prevail. Creameries operate the year round, and feed the market just as fast as it can absorb the weekly make, and no faster. The effect of creamery butter on the public taste is improving, and wherever it finds its way it makes consumers less content to use inferior goods.

Roundly stated, it may be said that Ontario alone loses \$2,500,000 every year on its present output. The loss on the undeveloped dairy interest is fully an equal

amount, so that we have the enormous sum of five millions a year passing us by. This sum would much more than pay all the provincial subsidies on a basis of one dollar per capita instead of eighty cents; or, it would give to Ontario the equivalent of \$2.50 per annum on every head of population.

Before closing, let me say the increasing rivalry among those who supply the English market will make it impossible to obtain any great increase of price. We must begin where the Danes did, and where the English and Scotch have. Instead of raising about 3000 lbs. of milk per cow, and using three acres for the purpose, we must double the animal's capacity and treble the yield of the acre. This has been worked out already by many men in all parts of Canada, in cheese and butter districts. We want to increase the per acre yield, and to get a more economical animal than the cow we have now. Unless we can have a minimum of 5000 lbs. of milk, containing at least 200 lbs. of butter per cow, and acres able to raise at the very least one-half this amount, the sooner we quit the business the better. Who will help the manufacture of good butter? Who needs it? Why not the farmer? Let them plank down their dollar and come into the Creamery Association. Commission men are interested; won't they join our Association? We want ten thousand members at one dollar each. One cent on every ten thousand pounds of butter made in Ontario would be but \$3,200 a year. One mill on the dollar realized by the sales would be less than \$4,000. We want to educate all Ontario to produce higher quality, greater uniformity, as great a reputation in butter as we have now in cheese, to double the capacity of the stock, and to permanently improve the agriculture of Ontario. Every dairyman must work to help this result.

Toronto, April 2d, 1887.

Poultry.

Poultry on a Large Scale.

(Continued from April Number.)

BY J. W. BARTLETT, LAMBETH, ONT.

Feeding stock is now considered a science, and that it is a difficult one to master, all who have ever studied it will admit. Certain it is, any person can throw a dish of grain to fowls or other stock, but to feed for best results is a different matter, and to the farmer who keeps a small flock of hens and gives them the run of the farm, or as much of it as they see fit to appropriate, it is a matter of minor importance, as the birds will provide for themselves to a great extent what he does not provide for them. But to the poultry farmer whose flocks are kept in limited quarters, it is a different matter, as he must supply all their wants, such as gravel to grind the food in the gizzard. This is the popular belief; but while we admit the necessity of it, we do not believe it is required for that purpose. He must give them lime in some form for the formation of shells, food suited for the formation of eggs, but not containing too great a percent age of fat, and last but not least, exercise must be made compulsory, as fowls, in common with all nature, find true life in action, and we do not think any other stock are rendered so useless by a little over feeding as fowls, especially laying hens. However, there is but one food we would exclude entirely from their diet, and that is corn; and we would not feed that to laying hens if provided free of charge, although it is excellent for growing chicks. A good ration is bran and shorts, equal parts, for morn'g: at noon, or a little before, if at all convenient, feed oats buried or thrown down on straw a foot deep; at night, wheat or buckwheat, just what they will eat up clean, and no more. In addition to this it is an excellent plan to cut turnips or mangolds in halves, drive nails in a piece of plank, allowing them to project about two inches or a little less, strike the rind side of the turnip on the nail and it will remain there exposing the flesh side, which the hens are very fond of, and will

eat entirely down to the skin. They may be allowed all they want of turnips and mangolds, as they are not likely to put on much fat from them, and each season we are confirmed in the belief that a certain amount of green food is a positive necessity to egg production. We used to argue that fowls did not require green food any more than a horse, and that like him, they might be benefitted by it, but that it were not a real necessity; but we are now thoroughly convinced that the hens lay better and keep healthier for it, and are convinced they require green food of some kind more than any other kind of stock. Meat is also necessary; and we have heard poultrymen assert that rather than do without it they would buy steak at twelve cents per pound. However, this is not necessary, as refuse meat can be had for much less money that will answer every purpose. Bullock's liver is good, and in the vicinity of slaughter-houses can be had reasonable enough to afford it; cracklings are good also, and can be had from any pork-packer for about one dollar per hundred.

When the young chicks are about a week old take a sponge, dip it in coal oil, then squeeze dry and sponge the under part of the hen well, not allowing enough oil to remain in the sponge to blister the skin of the hen or hurt the eyes of the chick. This is the most effective method we know of getting rid of lice, and almost all chicks have them.

Free Advertising.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—If you will permit me to use a little space in your valuable paper I would like to state a few facts concerning some things, which to my mind hardly seem fair. As an advertising medium for breeders I believe that the JOURNAL is unexcelled in Canada, and when the advertisements are confined to the advertising columns there is no reason for any one to complain; but, sir, when your advertisers, under the cloak of "correspondents" and "contributors," seek to convert the space reserved for reading matter, of general interest to the countless readers of your paper, into free advertising columns, it is time some one called a halt.

I shall speak in this letter of one instance only, although there are others. The report which appeared in the February issue of the JOURNAL of the Western poultry show, held in London, is one which I cannot believe that you wrote. I feel sure that had you been there yourself, you would have dealt fairly, and squarely with all, and would not have favored any particular breeder in your report. Not so with the report which appeared in your paper. At the time your February number came to hand, I was looking for poultry. On looking in the JOURNAL I saw the report above referred to, and what did it tell me? Why, simply this, that there were one thousand exhibits of all the various breeds, and only one breeder's name was mentioned, that of "J. W. Bartlett, of Lambeth, Ont.," and the gentleman who competed with Mr. Bartlett was referred to as "a gentleman from Dundas, whose name we could not learn." It seems strange that your correspondent could not ascertain the name of this gentleman, especially as he knew he came from Dundas. Was his name not on the list of exhibitors? I think so. Will your correspondent please explain this mystery? Will Mr. Bartlett deny the authorship of that report? If he was the correspondent, and I feel certain that he was, he has acted in a very mean and despicable manner. He has abused the privilege he has of writing for the good of the farming community at large by using the space set apart for unbiased and unprejudiced reading to serve his own ends.

Milton, Ont.

"I like the JOURNAL better than ever. If I could afford it I would send it to every farmer in the country."—W H Davidson, Lobbystown, Que.

"I think highly of the JOURNAL and say, go ahead: you are doing first rate so far. The articles written by practical men are a valuable feature. Stick to this."—J. T. Barclay, Morris, Man.

The Apiary.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Bees.

BY R. F. HOLIERMANN, BRANFORD, ONT.

When purchasing a colony of bees the novice is often at a loss to know which is the best. His object is generally to receive a large yield of honey. If it be the pleasure derived from watching the work in the field and on the combs, and the beauty of the bee, the Italian is the best to secure. They are more gentle, can be handled with greater pleasure, and examined with less liability to become irritable. If bees are purchased with the object to rear queens, the Holy Land, Palestine, and Cyprian workers will raise more and larger queen cells than any bee that I know of. Aside from that, I have in my experience found them to be a failure for pleasure and profit. They are very prolific and will continue brood rearing after the honey flow has ceased, when workers in large quantities are of no use, and honey is consumed in raising the brood and afterwards by the fully developed insect. They are notoriously irritable, handled with extreme care. The slightest accident, which will occur even to the experienced, will cause them to attack the bee keeper, and the only way to do is to retreat for the time being. So they would be discouraging stock for the beginner. Fertile workers will appear shortly after the loss of a queen, with these races, and when they have once gained possession of the combs they are difficult to dispose of, even by an expert.

For all purposes the Italian, with a slight mixture of black or the German bee, answers well. They are not expensive, in fact amongst the cheapest, and have vim and energy enough to defend their hives, fight successfully the miller moth, and store and rear brood successfully. They are more irritable than the Italian, however, and in that way are a disadvantage. The Black or German, of which there are, however, but few in Canada, being more or less crossed with Italians and others, build the straightest, and the best comb honey. Their incapability to fight millers, defend their homes, etc., make them an undesirable bee. Purchase, then, Italian hybrids, but let them be with the greater part Italian.

Next as to the hive. There are many movable frame hives, and there is more in the mode of management, success in springing and locality than in the hive. To secure the best results, however, a hive should be managed on the tiering up plan, and the body of the hive not used to extract from, as it causes frequent disturbing of the brood chamber, and the honey secured must be either taken unripe or the bees unduly crowded for room. There are a number of hives used with the Langstroth frame, and bees in these can be sold more readily than any other. In any case purchase bees in the hive you contemplate using, and have only one size of hive and frame throughout.

As to numbers, bees should not be purchased until May. They are better left in the hands of the experienced until fruit bloom, and after that there is but little danger of loss. Many will go about picking up the heaviest hives, and when this has been secured, take it. This is a very serious mistake. The honey at this season and in this condition is worth but little, the bees much. The weight is an almost certain indication that the brood-chamber was unduly contracted the previous season, and for want of cells to rear young, but few bees went into winter quarters, or but little honey was consumed by few bees during winter, and comparatively little in raising young bees in the spring. What should be noted is the strength

of the colony as to bees. Those the liveliest at the entrance, the colony having the greatest number fly out and in per minute, is the colony to be desired. To note this the purchaser should visit the apiary whilst the bees are at work on a warm sunny day. Bees should be prepared for moving during the day by nailing the frames to their place, then at night they should be closed at the entrance by means of wire cloth; they can then be removed at any time. The top covering should be cotton or wire-cloth, as night and morning is the best time to haul bees. They should have plenty of ventilation; be moved when warm enough for them to fly, but not extremely warm, and colonies very strong, almost ready to swarm, cannot be moved without risk in hot weather. Prime colonies in movable frame hives should not cost more than eight dollars this spring; anything above that is a fancy or unnecessary price.

P. S.—In speaking of the tendency of the Holy Land, Palestine and Cyprian bee to produce fertile workers, it may be well to give a brief description of such.

The queen and workers are both female. The experienced stockman knows that food plays an important factor, especially in youth, in the sexual development of his stock. With the honey bee this is the case to such an extent that the worker and queen bee are both produced from the same egg; that is, when first deposited in the cell, a worker or a queen may be produced, all depending upon the nature of the food given. The cell is constructed about the egg in adaption to the food and insect which it shall contain. This is all the more strange when we know the difference in appearance, function and disposition of the two insects. The queen is a fully developed, the worker an undeveloped female. When the queen is lost the colony begins to feel its lost condition, and appears to become desirous of producing bees to take the place of the aged and dying. The undeveloped females in some strange manner appear to have the power of producing eggs which invariably produce nothing but drones, and such workers are called fertile workers. They lay often six to twelve eggs in one cell, and the eggs are generally laid in worker cells; and when the brood is capped can readily be detected by having the cells elongated and oval. The progeny is of no use, and only hastens the destruction of the colony.

Horticultural.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Insects Injurious to Fruit.

BY E. D. SMITH, WINONA, ONT.

APPLES.

One of the insects most injurious to the apple is the *borer*, of which there are two species, the round-headed and the flat-headed. The former is not so prevalent as the latter, and confines its operations chiefly to the base of the tree, whilst the latter attacks the trunk and larger branches. In the latter part of June or early in July the eggs are deposited under scales of bark or on the outside of the smooth bark. These are quickly hatched by the warm rays of the sun, and the tiny larva proceeds at once to cut its way through the bark, where it remains until full grown, eating the sap-wood and inner tissues of the bark. It may be observed by the sawdust-like castings that are pushed out from time to time, and in the fall by the dark spots on the bark which has been killed by the borer beneath. These pests attack trees even if healthy, but prefer diseased or sickly trees apparently,

and especially those leaning to the north and sun-scalded.

A wash made of the consistence of thick paint, and composed of soft soap and a solution of washing soda and water, applied early in June, and again early in July, will prevent the parent beetles from laying their eggs on the trees, as they do not appear to like the mixture. If this has been neglected, then the trees should be examined in the autumn, and if any trees are found infected, cut away the bark and kill the borer beneath, or if not there punch a piece of wire up a hole bored into the tree, if one is found beneath the bark where the borer has been, as the larva has probably retreated into its den in the heart of the tree, where it becomes transformed into the parent beetle, which, if left unmolested, will emerge in due time to lay eggs in turn upon other trees.

Woodpeckers destroy many of these borers, also the Ichneumon flies. Trees will soon be ruined by borers if attacked, unless remedial measures are taken to prevent their ravages.

Another enemy to the apple tree is the *oyster-shell bark louse*. It appears in the form of minute scales on the bark, of a brownish or grey color. Oftentimes the trunk and limbs are almost completely covered with these scales, under each of which a louse is sucking away at the sap of the tree, during most of the summer. Towards the middle of August the female louse commences to deposit eggs, and by the end of the season has converted herself into eggs. These remain under the scale until warm weather the following spring, when they are hatched about the end of May, and a little later issue forth to seek pastures new. As soon as they find a favorable location at the base of a twig, usually they settle down to work and never move again, but go on sucking sap and secreting a scale over their back, same as the parent did the previous season. The only time it is of any use to apply anything to kill them is when they are young, before the scale is secreted over their backs. A wash same as that prescribed for the borers applied at that time, which is the same time as required for the latter, viz., first of June and again towards the end, will usually be effectual. These pests can scarcely get from one tree to another themselves, but a wise provision of nature provides a means by the feet of birds or the larger insects, by which they soon become spread over the orchard unless exterminated.

The *tent caterpillar* needs but a passing notice, as they are easily seen and may easily be destroyed if watched. They do not leave the tent until eight or nine o'clock in the morning, so that if their tents are torn down and the inmates destroyed at this time, a pretty clean sweep will be made. The hard glistening rings of greyish eggs seen on the twigs are the eggs of the tent caterpillar.

The *canker worm*, that has for the past two years stripped several orchards near Hamilton, Ont., destroying their usefulness for the year, and permanently injuring them to a very great extent, can be overcome by the use of Paris green. Many devices have been proposed to prevent the parent moth or the young worms from ascending the tree, such as gummy substances, inverted tins or bands close around the tree, etc., but these are not likely to be put on carefully enough; in fact, it is almost impossible to do it, to prevent the young worms from getting up the tree. A force pump fastened on the top of a coal-oil barrel, or, better still, a hoghead, is at present an essential for the fruit-grower. I gave my orchard a good dose of poison in 1885, and saw no canker worms in 1886. These destructive pests do not travel quickly, and once you get rid of them they will not come back for a few

years in numbers large enough to do serious injury. Four ounces of pure Paris green to a barrel is enough; more might injure the tree, and it should be applied as soon as the first worms are seen, which is soon after the first leaves are out.

Probably the most destructive enemy of the fruit-grower is the *aphis*, an enemy that is more difficult to fight successfully than any other, and one which, if not kept in subjection by its insect enemies and other natural causes, would very soon destroy every green thing on the earth. The females commence to produce offspring when about ten days old, and give birth to two daily for about two weeks. In this way the offspring of a single *aphis* would number ten millions before the close of the *aphis* breeding season—the last operation being the deposit of eggs beneath the bark, if loose, these to be hatched by the warm rays of the sun in April, and this is the best time to attack them. A strong decoction of tobacco, snapsuds or weak lye, applied freely at this time, may do considerable good, but as they are on the underside of the leaf and the leaf curled up, it is hard to strike them. If the trunk of the tree is scraped in the winter and well washed with the mixture proposed for the borer, the eggs will be partially destroyed. But as this insect also attacks black currants, cherries and plums, and appears suddenly in countless swarms, it is almost a hopeless task to battle successfully with them. I quail before these tiny pests as before no other enemy of the tree or vine, and can only trust to the balancing laws of nature which happily provides numerous enemies for them; sometimes an opportune frost, and at all times the numerous families of lady-birds, the ichneumon flies, and many others.

The enemy of the apple which has been probably more noticeable and more widely distributed than any other is the *codling moth*, which lays its eggs upon the blossom end of the young apple or pear when quite small, in fact, soon after the blossom falls. These eggs soon hatch and the young larva eat their way down into the heart of the apple, and just when hatched is the time to attack them, by having a little Paris green on this blossom end, so that the young larva will get a taste as soon as it commences to eat. As the young apples stand up and out, the Paris green, sprayed with a force-pump, is easily made to fall upon the blossom end. The next place to attack these pests is when they have become full grown and left the apple, and secrete themselves under rough bark on the tree trunk. If a cheap bandage is placed around the trunk most of the larva will congregate under it to spin the cocoon, and there become transformed into the parent moth once more; which, as soon as out, proceed to deposit the second batch of eggs, in one season. All fallen apples should be gathered up and destroyed, as many of them contain the larva not yet fully grown. Hogs or sheep in an orchard serve an excellent purpose in keeping down the moth. Many remedies have been proposed, such as building fires, hanging bottles of sweetened water in the trees, etc., but these are not advisable, as they serve to kill more friendly insects than they do of enemies. We should not forget that we have friendly insects that do a hundred times more good in keeping down the pests of the fruit-grower than we do ourselves, and we should learn to distinguish these; we should pay more attention to entomology than we do at present, since it has come to be more important to know how to save the crop than how to grow it. The study of the latter subject was of more importance in the past, fruit-growing being a comparatively new industry, and its enemies not so prevalent in times past.

The lady birds, of many different varieties, and too well known to need description here, are invaluable assistants to the farmer, destroying the eggs of potato bugs, *aphis* and other noxious insects. The lacewing flies, a small fly with four transparent netted wings, bright golden eyes and green slender bodies, producing a larva that has a ferocious appetite for *aphides*. The *Syrphus* flies, a short, thick fly, with a black body, marked with transverse yellow bands; two transparent wings also in the larva state, live upon the young *aphis* and serve to keep them in check. Some claim that the *aphis* is the cause of the scab on the apple, but there seems to be nothing definitely known yet regarding the cause of this blotch. Some think it due to climatic influences beyond our control, others a fungus that spreads like mildew through the air. Whatever the cause, it has certainly come to be one of the worst hindrances to apple-growing, totally prohibiting the growth of many varieties of apples, as well as pears, and some kinds of grapes. Among apples the snow seems to be more affected than others: the *Flemish Beauty* among pears, and among grapes, *Rogers 3* and *Creveling*, with the writer. If this is a disease propagated by living germs lying in the ground during the winter, perhaps some application to the soil at the proper time might be beneficial, such as is proposed for rot upon grapes.

Dr. Saunders, in his excellent work upon "Insects Injurious to Fruit," enumerates and treats exhaustively of 81 different insects that prey upon the apple tree, its leaves or fruit. This work should be in every farmer's home, and is worth more if studied than ten times the cost of it if spent in books which agents usually sell, or which usually find an entrance into our libraries.

(Completed in next issue.)

The Home.

Tokens of Spring.

(Held over from March.)

The snow fell fast, adding to the thick covering that already lay upon the bosom of earth to protect it from the bite of the cold frosts. For many days the sun had failed to appear, and the lone invalid, in looking out of the window, saw the white coat grow thicker and thicker, making egress almost impossible, had she been ever so well. Her melancholy very naturally increased, and her mental vision could see only the shady side of things. She was fast forgetting that the world in which she lived was on the whole very fair, and that the bright sun in the heavens was only waiting to gladden the earth with his rays again, when the anger of the elements had died away. It is not good for mortals here to be long deprived of the light of the sun. The mental machinery does not work well, and there is much danger that the moral sense will suffer. The coal-mine is not favorable to the development of robust intellect, and the helmsmen of the passing generations do not usually come from the factory. They grow, like the giant trees of California, in the glorious light of the sun; and usually in rural homes. And so it is with the inner life. Deprive it of the influence of the benign rays of the Sun of Righteousness and at once it begins to pine, and the degree of its vitality is always in proportion to the directness of the sunshine that comes from this higher Presence.

Our invalid had closed her eyes to the dreary outlook, for as far as she could see there was only snow upon snow, and more and more was falling. She had retired in reverie into that inner temple of the soul

where the natural human vision cannot look in, but which is very susceptible to outside influences, and she therefore found it in confusion. It had not been dusted for many days, and the furniture was lying about untidily. She was too much discouraged to set the room in order, as she could only think of life in its terrible winter aspect.

All at once she heard a sound from without that fell upon her ear like sweetest music. It was the sound of a crow cawing in the neighboring pines. The cawing of crows is not usually very musical at certain seasons, when their gabble becomes incessant, but it is the thoughts that music awakens that makes it musical or otherwise. And so it was on this occasion. At the cawing of that crow hope revived, and a warm gleam of sunshine stole through her soul, for it awakened within her glad visions of the coming spring; and when she looked again into that inner shrine of the soul not a particle of dust remained, it was beautifully swept and garnished.

Let us give thanks to a kind Providence for the tokens he has given us of a coming spring to cheer us in the conflict with our stern Canadian winters. We may behold them in other things than in the cawing of the crow.

We find them in the *forest*. Look out upon the forest and you only see naked trunks and bare arms extending on every hand. But scan it more narrowly and what do we find? Every twig on every tree holds a bud, and every bud contains a winter wrapping, within which the germ of future life is preserved, and so, as we gaze, the thought arises that this germ of life is not to be wrapped up in this winter coating for ever, but the time must come when this outer garment shall be laid aside, when "the wood shall hear the voice of spring and flourish green again."

We find them in the *heavens*. In every ray of sunshine that reaches earth between the angry clouds that scud across the sky we have a pledge of the coming spring, and every time we see the sun we may feel sure that in this prolonged battle of the elements the sun will triumph, winter will sink away and spring will come. The old warrior only wants a little more time. Let him climb but a little higher in the heavens and before the arrows of his more direct rays, the tokens of winter will all perish.

We may find them in the *earth*. At the approach of winter yonder meadow was brown and bare. In the conflict with the elements its grasses apparently had been vanquished. Remove but a foot of the covering thereof, and lo! what do we find? Blade after blade is already green, and they are getting ready for that vigorous growth which will follow the call of spring, which even the grass know is coming. With an exhibition of faith (we know not what else to call it) that often puts our own to the blush, they get ready for the summer's work, while yet coated with a winter covering, and while to the eye of sense there are as yet but few indications of spring.

And why are the indications of spring so few comparatively? Very likely that our faith may be stimulated. "We walk by faith and not by sight" in more senses than one, and the indications given us in the depth of winter are just enough to keep us from getting discouraged. As the winter becomes prolonged our impatience increases, and then it is that the tokens of spring increase every day. We find them in the singing of the birds, the voices of the brooks, and in a hundred different ways. With so few indications of spring on its near approach as are given us in the dead of winter, we would greatly murmur, and therefore our Father in mercy spares us the temptation.

There is another springtime that is coming, but like

the spring that will soon gladden the heart of every reader of the JOURNAL (perhaps not every reader), it lies beyond the borders of a sterner winter than this of '87—the winter of the grave. "Of its coming, where are the indications?" We hear this question fall from the lips of the scoffer. He continues, "You tell us of a spring that is everlasting, but how do you know that it is coming? No one has ever come again to earth to tell us how its balmy breezes felt." Not so fast, my unbelieving friend. One has come from that realm who has told us a good deal about that climate, and he has a right to know, for he dwelt in it for ages before he came to earth to tell us of its sunshine, "Oh, so bright!" And thus it is that he speaks of it to one of his most confidential friends: "And he showed me a pure river of the water of life, clear as crystal—and on either side of the river was the tree of life—and yielded her fruit every month." Now rivers do not flow in winter nor trees bear fruit. The former are congealed and the latter are naked and bare. And in speaking of the inhabitants he says, "They shall hunger no more (it is only in winter that we are likely to hunger), neither thirst any more, for the Lamb which is in the midst of the throne shall feed them, and shall lead them unto living fountains of waters, and God shall wipe all tears from their eyes." Truly then

"There everlasting spring abides
And never-withering flowers,"

Although

"Death like a narrow sea divides
This heavenly land from ours."

There are other tokens of this coming spring. The old inhabitant of Arabia Deserta beheld them in the twigs that sprang up around the stump of the dead tree. It seemed to afford him a good deal of satisfaction to say, his mental vision evidently looking over the bridge that unites the two worlds, "there is hope of a tree if it be cut down, that it will spring again, and that the tender branch thereof will not cease." We have other tokens in the successions of our annual springtimes, and these are very suggestive,

"All rature dies and lives again,
The flower that paints the field,
The trees that crown the mountain's brow
And boughs and blossoms yield.

"Reign the Honor of their form
At winter's stormy blast,
And leave the naked leafless plain
A desolated waste.

"Yet soon reviving plants and flowers
Anew shall deck the plain,
The woods shall hear the voice of spring
And flourish green again."

In all this we have reminders of that springtime which, though eternal, is not too long.

If one who has long felt but the wintry side of life, whether from sorrow or old age, chances to read these lines, we can only say more, at the thought of what is ahead, thank God and take fresh courage.

Personal.

We trust the readers of the JOURNAL will bear with us in the introduction of a brief reference to the late Robert Shaw, sr., who was born in Ayrshire, Scotland, in the year 1808, and died at his residence, "Burnside," Woodburn, Ont., on April 3d, having nearly completed his 79th year. In 1833 he came to Canada, located for a time at various places along the St. Lawrence, Lake Ontario and Niagara river, and soon after married the eldest daughter of the late A. Carnochan, an elder of the old Stamford Presbyterian Church, of which body he was himself an elder for

nearly forty years. The same year he settled in the village of Woodburn, when the ancient forest ruled the land, and placed his home amid the lordly pine trees that grew upon nearly every part of the farm. His life, in keeping with his character, was quiet and unpretentious—unassuming goodness was the mantle he usually wore. His love of truth was more deeply rooted than that of home and country, which is saying a great deal. It was with him a favorite maxim that a character without truth for a foundation was no character at all.

Of a family of nine, all survive him but the third son, Andrew, who died in 1868, at the age of 22 years, when just completing his arts course at Toronto University. He was an officer of the University company of twenty six who, at the battle of Ridgeway, left three of their number upon the field. Of the sons who remain, the first and fourth are farmers; the fifth practices medicine in Hamilton, and the second is the editor of this journal.

His golden wedding was celebrated in August of 1886.

Like a shock of corn that is fully ripe, he was gathered to his fathers. As a workingman at nightfall wending his way homeward to enjoy its peace, he went away with the gathering shadows to enjoy the eternal repose of that unclouded home over there; where the glad spirit, freed from the fetters that bound it to mortality, revels in the expansiveness of infinitude. His sons carried him to his last resting place in the quiet of the old village churchyard, and the great wave of time goes surging on, vainly trying to obliterate the memory of his existence, for as long as his family shall be spared to live and labor, the parent who taught them almost wholly by example shall live again.

Windmills.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I noticed in a recent issue of your JOURNAL the inquiry of S. A. Fisher, regarding the success of wind-power as experienced by you for grinding grain, cutting feed, etc., on the farm. At the same time he expresses his confidence in its success where the work is such that it can be automatically applied, but doubts its success in running machinery that requires attention when in operation. Mr. Fisher says he "has been thinking of putting up a power-mill for a year." Perhaps his confidence and distrust are so equally balanced that he has reached the dead point, and now asks for a little weight of your experience to help him pass the centre. You brace him up very well on the side of his expressed confidence, and add a block to his doubts, and there he will remain.

I appreciate your remarks based on your windmill experience. The windmill as a motor for farm use in grinding, cutting, sawing, etc., is a subject at the present time engaging the attention of most of the farmers and mechanics of the whole country. Multitudes of mechanics are experimenting and striving to remove the obstacles between the wind-engine and its successful application to rotating machinery. The ideas of most of these experimenters are rude and their inventions imperfect, therefore the user of these crude engines experience a variety of results. Experience being a master teacher, the graduate, after paying his tuition, becomes an advocate of what he has learned, whether for weal or for woe; therefore we have experiences in the use of wind-power as varied as the wisdom of their constructors. We will not attempt to discuss, unsolicited, the defects, merits or demerits of any of the different devices of wind-power advocated by the different manufacturers; will say, however, to the honorable editor of the JOURNAL, and to Mr. S. A. Fisher, that the successful wind-engine for power use has been reached, and wind-power for pumping water, grinding grain, cutting feed, sawing wood, upon the farm, is the best, cheapest and most profitable power that can be employed. This is a fact demonstrated and settled in localities where the proper engine is known and used. We anticipate your query, and will answer Mr. Fisher's question,

"Is a 16 foot mill equal to a four-horse lever power?" Yes, it is, with the right mill; but as horses vary in their strength, we will come to items, and say a 16 foot windmill of proper construction, in a 20 mile wind, will grind 20 bushels per hour into good feed, or will cut feed to the full capacity of a 16 inch feed-cutter, or will run a pony thresher, or will saw all the wood that can be got to the saw. This quantity will be increased or diminished as the wind varies either way from that basis. Pumping water and grinding grain can be accomplished without attention, but the other work should have attention in windy and stormy weather, which usually prevails during the season that it is required, thereby giving uniformity to the employment of farm work.

I have alluded to the fact that there is a windmill that will do this work, and will do it successfully, and I will now say the mill I refer to is the "Challenge" of St. Catharines, Ont. This mill has been on the market for a good many years, and has a very large trade all over the world, and as a geared mill for power purposes it stands at the head of all competitors. It is held facing the wind by a patented device consisting of two side wheels and screw shaft. The two wheels are attached to a screw shaft at right angles to the power-wheel. The screw travels in a segment that encircles the chair in which the engine is seated. This screw is attached to the engine, and in its travel carries or turns the engine with it upon its centre. When the point in the circuit is reached where the action of the wind is lost upon the small wheels, they cease to turn. The power wheel is then at right angles to the wind, and remains there without a possibility to change its position until further action of the wind upon the small wheels, which cause would only be from a change of wind. Being thus firmly held to the wind, the full available power is taken and applied direct to the machinery. This is attained in no other mill in existence. We shall be most happy to furnish any other information bearing on this important subject that you or your correspondents may desire.

C. P. MILLS.

St. Catharines, Ont.

Jottings.

Sale of Sussex Cattle.—At the spring sale of Messrs. E. & A. Stanford, Sussex, Eng. One of the bulls brought 105 gs., a number of them over 30 gs. They were of the Sussex breed.

Eastern Townships Agricultural Association.—The third annual exhibition of this Association will be held at Sherbrooke, P. Q., Tuesday, 13th September, to Friday, 16th September, both days inclusive.

The Alberta Live-Stock Journal.—This clean-looking, well-written live-stock monthly gives promise of a useful future. It is printed at Calgary, Alberta, and has now reached its fourth issue. The price is \$2 a year.

Drain Tiles.—We are repeatedly asked as to where drain tiles can be got. There is certainly room for the manufacture and sale of these in wholesale lots in Canada by some one with sufficient enterprise to let their whereabouts be known.

The Canadian Honey Producer.—This is the name of a monthly, published in Brantford, Ont., the three first issues of which have reached us. It is a neat little publication, filled with well-written articles by prominent bee-keepers. It is published by E. L. Goad & Co., Brantford, Ont., at the low price of 40 cents a year.

National Dairy Show.—A National Dairy Show has been instituted at New York, which will be held there, May 10th to 14th. It is in the hands of good men and cannot but result in great good, as the contests of the rival breeds will be more minutely entered into than they have hitherto been at shows that were more local in their nature. We hope that some of our Canadian cows will be there.

Food Ration for Young Pigs.—A writer in the *Country Gentleman* gives the following as a good food ration for young pigs. Grind one bushel of flax seed with 8 bus. of oats. Then mix 100 lbs. of this with 200 lbs. of bran. He argues that such a ration answers well for building up muscle and a rangy frame, and we may add we have no little faith in the wisdom of his statements. If skim milk can be added it will no doubt make a great improvement. We would also favor lessening the quantity of bran and adding wheat middlings.

Pleuro-Pneumonia.—The authorities are still heroically at work in Chicago, in searching for instances of the disease in the cows of the city, with a view to its destruction, and there is good hope, the Chicago papers claim, of soon having it eradicated. In Scotland, too, it is somewhat on the decline. It is certainly a great matter that we shall continue free from the ravages of the insidious scourge.

Misrepresentation as to Prices.—"Macgregor," in the *London Live-Stock Journal* of April 1st, cites a number of instances where the prices claimed for Clyde horses have been greatly exaggerated. It is a species of dishonesty that we regard as utterly without excuse. No good can come of it, as the practice involves deception, fraud, lying, hypocrisy, and a good many other things which all true men abhor.

Personal.—Lord Hindlip, better known as Sir Henry Alltop, died recently at Hindlip Hall, in his seventy-sixth year. His herd of Bates Shorthorns dispersed in 1885 was very noted in his day. Mr. Raymond S. Briere, of Braithwaite Hall, Yorkshire, also a noted breeder of Shorthorns, also died not long since. His favorite family were the Vespers, of whom the Hon. M. H. Cochrane, Hillhurst, P.Q., sold two head for 500 gs. and 250 gs. respectively.

Eureka Recitations.—We have just received from the publishers a copy of number nine of this series of recitations. It is a very good collection, containing nearly one hundred pieces, compiled by Mrs. Anna Randall Diehl, whose reputation as a writer of standard works of elocution stands high. It will be mailed to any address, post paid, on receipt of twelve cents in stamps, by J. S. Ogilvie & Co., the publishers, 57 Rose street, New York.

The Dominion Exhibition.—This year the Toronto Industrial will also be the Dominion Exhibition. The prize list, great as it was in former years, will therefore be largely increased. We are much gratified to know that the greater portion of the grant will be apportioned to the live stock and agricultural departments. Mr. Hill, the secretary and manager, assures us that the Board intends to make the exhibition Dominion in its character and worthy of the country in which it is held.

Color in Shorthorns.—That noted Shorthorn breeder, Wm. Warfield, of Lexington, Kentucky, has all along been a champion of the three colors, of the Shorthorns "red, white and roan," and he has announced in the *Breeders' Gazette* that there are indications of a change of sentiment in this respect. We hail this omen with unmingled satisfaction. It is bad enough for the breeder of the scrub to make the red color an indispensable requisite in the choice of his bull, but it is sorrowful to see Shorthorn breeders being led by him in their color preference.

Little Jock Elliott 3,768.—For the credit of our artist, as well as Canadian art, we were much gratified to see this cut reproduced by the *London Live-Stock Journal*, that grandly conducted and useful publication, in its issue of March 25th. The exhibition of that largeness of spirit by newspaper men, which lifts them far above that contemptible narrowness which will not allow of even the mentioning of a name of a contemporary, is refreshing, and we hope to reciprocate the compliment with our great brother beyond the sea at no distant date.

A Model Farmer's Institute.—On March 2d and 3d, there was held in Oswego what we would term a Model Farmer's Institute. It was arranged through the untiring efforts of Mr. Dudley Miller, of that place, the warm advocate of the Holstein-Friesian dairy cow. Papers were read by such men as Prof. Roberts, of Cornell University; Major Alvord, of the Massachusetts Dairy College; Prof. Arnold; Lieutenant Governor Jones, and a large number of other eminent gentlemen. When farmers may partake of such a repast at one time, they are indeed favored.

Another Hereford.—At the Ontario Experimental Farm, the Imp. cow, Bloomer 1791, 9252, that weighs 2100 lbs. without grain feeding, has just dropped another bull calf to the Wilton sire, Conqueror (7510). At birth this calf weighed 110 lbs. and its brother, Conqueror 3d (168), 28339, bought by Mr. Muntz, of Muskoka, at last year's sale, weighs nearly 1200 lbs., though only eleven months old. It will be remembered that Conqueror (7510) is the animal bought from Her Majesty's Windsor Herd in 1864, and the same that her Commissioner desired to repurchase last year.

The Butley Abbey Suffolks.—We learn from the *London Live-Stock Journal* that the owner of this stud, Mr. S. Walton, is one of the oldest breeders of Suffolks in Merry Eng-

land, and his is also one of the best studs. The horses from Butley Abbey have won many show-ring victories since 1849, a good number of them at the Royal. Some of the mares used in building up the stud, were Kesgrave Empress, Newbourn Old Princess, Christy's Blyth, Donnington Matchet and Ash Darling. Lovely 1237, and out of the same mare as the famous Dreadnought, is the favorite female. Cupbearer 2d 542, Chief-tain. Dreadnought 1462 and Monarch 3d are amongst the most famous of the sires.

Still Other Victims.—"It is stated that a stock buyer at Forreton, east of Freeport, Ill., last week bought from farmers about \$4000 worth of stock, shipped it to Chicago, pocketed the proceeds, and left for Australia. Amongst those reported to have lost are Louis Fosh, at Baileyville, who loses \$500, and John Fosh, near that village, whose loss is about \$700."—*National Live-Stock Journal*. We feel like saying, it serves them right. If farmers consent to have their cattle driven away and sold before they are paid, they must put up with the results. We editors are advising our farmers to study many things relating to their calling, but we seldom remind them of the wisdom of studying to do business on strictly business principles.

Cavalry Horses for Britain.—Doubtless our readers are aware of the presence of Adjutant-General Goldie and his assistants, appointed by the British Government to purchase cavalry horses for Britain. We hope that our farmers will be alive to their own interests and that the right kind of article will be forthcoming in sufficient numbers. Nay, more, if this trade is to grow—and why should it not?—not one moment is to be lost in taking wise steps to breed this class of horses, by the lovers of such. That Canada should become a center for the production of a splendid class of animals of the principal breeds of all kinds of live stock is to be devoutly wished for. The party are to visit Quebec, Ontario, Manitoba and the North-West Territories.

The Waterside of Forbes Herd of Aberdeen-Angus Cattle.—Mr. Geo. Wilken, the owner of this herd, first established it in 1871. It was dispersed in 1878, bringing at that time an average of £32. In 1879 it was re-established on as much of the old herd for foundation as he could pick up. In 1884 a draft sale of 34 animals was held, making an average of £64, and again in Sept. of the same year, 29 head brought an average of £54 10s. At the sale of 1885, 42 head sold, averaged £25 14s. The herd contains representatives of the Vines, Prides, Ericas, Ruths, Sybils, Lady Idas, etc. The cow Matilda 2d 6312, has never been beaten by a female in any show-ring. Mr. Wilken has handled 900 head of Angus breeding cattle in his day.—*London Live-Stock Journal*.

Head's Mica Roofing.—This late invention promises to revolutionize the process of roofing in both town and country, so far as the material is concerned. It is made from a preparation of mica and tar, and has been tested for some time past on a limited scale. The following are a few of the claims advanced in behalf of it: (1) Any one can place it in position with ordinary help. (2) It is more durable than shingles. (3) It costs less than shingles. (4) It makes a very handsome roof. We shall watch the extension of this work with more than ordinary interest, as if time proves its claims well founded it must be extensively used. A company has been formed in this city for its manufacture and sale, of which Mr. Garland, of the firm of Garland & Rutherford, is a principal member.

Another Victim.—When will our farmers learn to take care of themselves? As narrated in the *National Live-Stock Journal*, of Chicago, a certain Mr. Steinmetz, a well-known cattle breeder of Missouri and a very respectable man, was victimized in a most cruel manner by two sharpers, who commenced operations by proposing to buy his farm, but before they got through with him managed to leave him worth \$2000 less than when they commenced operations. One of them professed to deal in lotteries and the old man consented to hold certain documents for the other for a time, and in this way they managed to bleed him. A good mastiff kept for the special benefit of such characters, and men who sell Bohemian oats and \$15 per bushel seed wheat, would be a good investment.

Banquet for the Live-Stock Breeders.—Of so much consequence in the eyes of the stock-men of the United States is the Annual Fat Stock Show held in Chicago, that some twenty or more of the Live-Stock Associations have fixed upon it as the most fitting time to hold their annual meetings. This year a banquet is to be given to the breeders, under the auspices of the Percheron Association. The President of the United States has promised to attend. This is the estimate that stock-men in the United States put upon the value of the Fat

Stock Show. Our western contemporary says these shows are places for the exhibition of "Milk." Who is right, the editor and proprietor of the agricultural paper we refer to, or all the stock-men of the United States? We suppose the former.

The Acme Harrow.—The Acme Pulverising Harrow (lod crusher and leveller, all combined in the one implement, advertised in this paper, is one of the most useful implements that can be placed on any farm, as it can be devoted to a great variety of uses. In two respects it is, perhaps, without a rival—that is, in securing a fine tilth for a seed bed, and in the eradication of weeds, including even couch grass and Canada thistles. We have never seen so many testimonials regarding the one implement gathered before, and they embrace farmers over the whole of the North American continent where land is cultivated, as well as a number from the continent of Europe. The sole manufacturer is D. H. Nash, Millington, Morris Co., New Jersey, but there are several distributing depots in Canada.

The Ardferd Abbey Shorthorns.—This Booth Shorthorn herd is one of the most famous, if not the leading Shorthorn herd in Ireland. It now numbers 118 head, and has been in existence for about 40 years. Animals bred there have won many prizes, both at leading English and Irish shows. The cow, Riby Marchioness, 12 years old, has produced 12 calves, and though 10 months calved, could not easily be dried. This is what every Shorthorn cow ought to be, as rightly expressed by the writer who furnished the notes for the *London Live-Stock Journal*, from which we are here quoting. The other tribes, Medora, Florence, Gwyne, Roany, Daisy, Venus and Mistress Mary, have each a number of superior representatives. Prince (51859) of the Riby tribe, a stylish red, heads the herd. Riby King (48575), has been extensively used, and a goodly number of the young stock are by the famous West Dereham Abbey bull, Sir Simeon.

Holstein-Friesian Milk Records.—From a paper by Mr. Dudley Miller, of Oswego, we learn that the first Holstein milk records were kept by his father, the Hon. Gerritt S. Miller, at Peterboro, N. Y., in the year 1870. In that year, the records of the imp. cows Fraulien, Dowager and Crown Princess, were 7,893½ lbs., 8,395 lbs. and 10,691 lbs. respectively. In 1875, the records of the same three cows were 8,588 lbs., 12,861½ lbs. and 14,027 lbs. Lady Clifden, imp. by Hon. Wm. A. Russell, of Lawrence, Mass., produced 16,274 lbs. in 362 days, in 1876. In 1881, this record was beaten by the Messrs. Smith & Powell's Ægis (69): record, 16,823 lbs., 10 oz. This cow was bred by Mr. Miller. In the same year, the cow Aagie (601), produced 18,004 lbs., 15 oz. In 1883, the cow, Echo (121), bred by Mr. Miller, and owned by Mr. F. C. Stevens, Attica, N.Y., scored 18,120½ lbs. In 1884, Echo's record was surpassed by Mr. John Mitchell's Jamaica (1355), and Ethelka (1208), Mr. Edgar Hindekoper's Violet (743), Mr. L. H. Payne's Lady De Vries and by Mr. Miller's Empress (539), and again by Mr. Stevens' Echo, who, in 1884, scored 23,775 lbs., 8 ozs. This record was, in turn, eclipsed by Messrs. Smith, Powell & Lamb's cow, Clothilde (1308), which on August 17th, 1886, completed 1he, as yet, unbeaten record of 26,221 lbs., 2 ozs. Mr. Miller predicts that inside of five years, the record will go beyond 30,000 lbs. in the year.

Union of Ayrshire Breeders' Associations.—Delegates from the Ayrshire Importers' and Breeders' Association of Canada, and the Dominion Ayrshire Breeders' Association, met at the Russell House, Ottawa, on April 6th, with Mr. Rodden, Plantagenet, in the chair, and H. Waite as secretary. It was resolved (1), that in the opinion of this meeting, it is desirable that there be but one association of Ayrshire breeders and one herd book in the Dominion of Canada, (2), that all pedigrees now on record be submitted to a joint revising committee, consisting of three members from each of the associations, who shall be empowered to pronounce upon the admirability of such pedigrees to the future publications of the new association, it being understood that the standard aimed at is imported Ayrshire stock on the side of both sire and dam. In case of disagreement the question will be referred to the Executive Committee of the Amalgamated Association. Messrs. W. Rodden, Plantagenet, Ont.; A. E. Garth, St. Therese, P. Q., and James Drummond, Petite Cote, Montreal, were appointed revising committee from the Importers' and Breeders' Association, and Messrs. James McCormick, Rockton, Ont.; D. Nicol, Catarqui, Ont., and J. Yuill, Carleton Place, Ont., from the Dominion Ayrshire Breeders' Association. The committee was requested to report on the pedigrees already on record in the two books at an early date. A special meeting was called for the 27th of April, at Ottawa, to confirm the action of the committees. We are very pleased indeed, to notice the moderation exercised by the members of the two associations, and the wisdom manifested in the steps already taken to bring about union.

Just as we go to press we learn that the meeting referred to has been held and union satisfactorily completed. W. Rodden, President, and H. Wade, Sec. Full particulars in next issue.

Tiles. — See the wholesale manufacturers of tiles in advertising columns. Importers will now know where to have want-supplied.

More Importations.—Mr. E. Stanford, of Markham, Ont., of the firm of Messrs. E. & A. Stanford, Steyning, Sussex, Eng., is soon to sail for Britain, for the purpose of bringing out an extensive importation of high bred cattle, horses and sheep of the various pure breeds. (See advertisement of Dorset Horned Sheep.)

Table of Contents.

STOCK DEPARTMENT: Do Sheep Deteriorate 489, Editorial Notes 484, Floor for Horse Stable—Sawing Manure 487, Importing Cattle from the U.S. 484, Is It True 487, Judging by Points 487, On What Ground was the Award Made? 489, Protection Against Dishonesty 490, Rambling 491, Selecting Judges for the P... 488, Selecting Judges 489, Stock Notes 492, Suggestions 491, Three Cases of Milk Fever 497, The Clydesdale Horse 494, The Folly of Selling off our Young Stock 488, The Hog that is Wanted 485, The Importation of Live-Stock from Britain 489, The Prince Albert Kestrel 488, The Style of Hog that is Wanted 488, The Three Lions of the Lushington Herd... 491, Thousands as Pure Breeds 490, What Shall I Breed? 492, Who is In Fault 490, VETERINARY DEPARTMENT: Precautionary Hints to Stockowners 491, FARM DEPARTMENT: A Farmer - Institute for Ontario 492, A Scheme of Organization for Farmers 493, Destroying Wild Oats 494, Hay Loaders 494, Proper Fertilization 494, Report of the Judges on Prize Farms 492, The Fifteen Dollar per Bushel Wheat 492, DAIRY DEPARTMENT: Butter Supplies and Values 497, How Can Creamery be Established 497, The Care of the Manure 494, The Selection and Summer Care of Milking Cows 493, When to Stop Churning 492, POULTRY DEPARTMENT: Free Advertising 497, Poultry on a Large Scale—Cont'd 497, APIARY DEPARTMENT: Bees 498, HORTICULTURAL DEPARTMENT: Insects Injurious to Fruit 498, HOME DEPARTMENT: Tokens of Spring 499, MISCELLANEOUS: Advertisements 502, Jottings 500, Personal 500, Windmills 500

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.

Horses.

Messrs. J. G. Snell & Bro., Edmonton, Ont., have sold to J. T. McFee, Lenoir, Iowa, the imported Clydesdale mare The Lass For Me, also one Canadian-bred Clydesdale mare.

Mr. B. C. Moore, Oakville, Ont., has sold a carriage stallion, sired by his own horse, Sampson, by John F. Rydyck, and the dam of the colt by Captain Chief, Mr. Walton of Illinois—graduate of the Ontario Veterinary College, was the buyer. The figure was, we understand, \$1,000.

Mr. J. L. Patterson, Canton, Ont., has sold his general purpose stallion young Donald Dinnie, winner of first prize and silver medal at Toronto Industrial Exhibition, to Mr. Alex. Donnelly, of Peterborough, for the sum of \$2,000. He has filled his place with the imp. Clydesdale stallion Laird Logie (447), (1745). Mr. Patterson purchased him from Mr. David Annan, of Pickering, for \$2,300.

We are pleased to learn that Mr. Thos. Good of Richmond, Ont., has succeeded in purchasing that highly bred Clydesdale stallion, Little Jock Elliot, whose cut appeared in the November number of the JOURNAL, another proof of Mr. Good's ambition, and also a proof of his good judgment in always selecting an A1 horse. If Mr. Good has low Montgomery he has replaced him by one still harder to beat.

Mr. Wm. Grogan, of Manitow, Man., has purchased the following thorough bred stock in Ontario. The two-year old

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, \$1.50 per line per annum. No advertisement inserted for less than 75 cents.

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.

PURE BRED HOLSTEIN BULL FOR SALE, one year old, good size, well marked. Sire, Sir Archibald, Dam, Mountain Bell. AMOS GREEN, Oxford Centre, Ont. my-1

FOR SALE. 5 first class young SHORTHORN BULLS, from imported stock; cheap. Send for catalogue and prices. EDWARD JEFFS, Bond Head, Ont. fe-4

FOR SALE, TWO SHORTHORN BULLS, one and two years old, first class animals with good pedigrees. JAMES MILNE, White Oak P.O., Ont. mar-3

—FOR SALE, CHEAP— YEARLING SHORTHORN BULL, dark roan, bred from first class stock, eligible for D. H. B. For particulars, apply to my-1 JOSEPH D. DAVIDSON, Bellhaven P. O., Ont.

WANTED by Sidney Agricultural Society, 100 BRED PERCHERON and CLEVELAND BAYS FOR SALE, delivered here or Montreal. Address, R. McDONALD, Secretary, SIDNEY, C. B. my-1

ENGLISH PEDIGREED STOCK. Shire Horses, Hereford Cattle, Shropshire Sheep, Berkshire Pigs and Cooley Dogs are bred and can be supplied by T. S. MINION, Montford, Shropshire R. S. O., England. fe-5

Thorough-Bred Chester White Pigs. R & J GURNETT, Ancaster, Ont., breeders of Chester White Pigs from imported stock. YOUNG STOCK FOR SALE. For further particulars, apply to R & J GURNETT, Ancaster, Ont. * * * FOR SALE * * *

—A Fine Young Shorthorn Bull— Took first prizes both at the Clinton Spring Show and also at the South Huron Show at Brucefield in a good ring. First class color and pedigree. Will be sold on reasonable terms. Apply to W. J. BIGGINS, Elmhurst Farm, Clinton P. O., Ont. my-3

SHORTHORN BULLS FOR SALE. FIVE choice bred Shorthorn Bulls. All eligible for the new Dominion Shorthorn Herd Book. Ages from 9 to 18 months. Correspondence solicited. For information as to prices and pedigree apply to JOHN McLARTY, Manager Oakley Park Farm, BARRIE, ONT. my-2

SHORTHORN BULLS. YOUR pick of a dozen Bates topped yearling bulls for \$100. Cows and heifers for sale at equivalent prices. Time given if required. I. C. PATTERSON, Postmaster, Toronto, or Eastwood, Ont. ap-1

REGISTERED JERSEY COWS AND HEIFERS. A few well bred animals for sale. Write for what you want. JOHN FENNEL, BURLIN, ONT. ap-2

—FOR SALE— A Number of Young Berkshire Sows and Boars, fit for Breeding. Orders booked for Spring Pigs, at \$5.00 each, pairs supplied not akin. Shipped to order, and guaranteed to be as described. 3 Shorthorn bulls, respectively 8 mos., 14 years and a years old. The above stock have all good pedigrees and individually are good. Address, J. E. BRETHER, Burford, Ont. ap-

FOR SALE. ONE AYRSHIRE BULL, Alexander Dunn, 1 year old; 1 Jersey bull calf, by Canada's John Bull, 5 months old. Also young Ayrshire cows and heifers. E. W. WARE, 9 Vine St., Hamilton. mar-14

BROOKSIDE FARM New Glasgow, Pictou County, N. S., H. J. TOWNSEND, Proprietor, BREEDER OF STANDARD-BRED TROTTERS American Cattle-Club Jerseys, Shropshire Down Sheep, Collie Dogs, Black-Red Games, Pekin Ducks, Toulouse Geese. Correspondence solicited.

Clydesdale stallion, Carrick Chief; sired by Damley (222), and bred by Capt. Robinson, London; also a three-year-old stallion with four imported crosses. From C. J. Campbell & Sons, Mayfair, the prize Lincoln ram, Conqueror, bred by Mr. Parkinson, Guelph; a yearling ram, bred by Mr. Harvey, McTavish, and three Lincoln ewes and lambs. From T. Becton, Glenview, one pair Bronze turkeys, one pair Pekin ducks, geese and Leghorn fowls.

Mr. B. S. Fryar, Fargo, Dakota Territory, writes us "Being a subscriber of your paper, I was not satisfied to buy stock until I visited your section, and while there, purchased a Clydesdale stallion, Stonetown Hero 4738, of John Miller & Son, Brou, ham, and he is doing finely, pronounced by all who have seen him as being the best horse in Dakota. Also bought thirteen grade horses, which are doing well, and is a big advertisement for your country in our section.

Messrs. D. & O. Sorby, Woodlands, Guelph, Ont., have recently made the following sales of Clyde horses. To Messrs. Sotham & Stickneys, Pontiac, Mich., the Canada bred Clyde mare Princess of Huron and her colt foal, also draught mare Nettie and colt foal. The foals were sired respectively by their imp. Gallant Boy (301), 4387, and imp. What's the Odds (1301), 4780. To Messrs. Gole & Brubacher, Bre-lau, Ont., the Canada bred Clyde stallion Jack, sired by Gladstone (1439), imp by Mr. John Duff, Everton, Ont.

In our last issue we referred to the purchase of the English bred Coach stallion, Lord Sudeley, by Mr. S. Staples, Ida, Ont. We refer again to the notice of the purchase, as he is the stamp of horse that will be found useful to breed from in view of the demand for cavalry horses in Britain. He is entered in the English Hackney Stud Book, vol. III, page 50, by the name of Dexter. We trust those who are sufficiently near will not be slow to avail themselves of the services of a horse so valuable. It should be the aim and pride of our farmers, to encourage the breeding of all kinds of stock that is useful, in a country so well adapted for it, some choosing one kind and some another.

At the sale of Mr. Andrew Scott, St. Laurent, P. Q., over 300 persons were present, including some of the best farmers from the island of Montreal. The bidding for the horses was very spirited. A one year old filly brought \$250, the dam being sold for \$390. Other horses went for from \$150 to \$300. Some of them went to the county of Compton, and some to Two Mountains. Of the horned cattle, twenty in number, the heifers were sold at prices ranging from \$20 to \$50, and yearlings from \$10 to \$20. The sale was regarded as a complete success. It was conducted in English and French, which greatly pleased the French-Canadian farmers, usually only English being used on such occasions.

The Messrs. T & A. B. Snider, German Mills, Ont., report their stock as having done very well during the past year. The Percheron horses have had a large season's business, the largest yet thus far, and our sales of grade Percherons have been beyond our anticipations. The Shorthorns also were lucky during the year, we made very fair sales in Ontario and Manitoba, and have excellent reports of the stock which has gone to the latter place. We anticipate sending out another consignment this year. This firm deserves very much credit for the enthusiasm which they have shown in the introduction and breeding of good stock. They have been at the front in introducing and breeding from pure imported Percheron stallions for years past, and their successes with Shorthorns of late in our leading show-rings have been of the highest—notably with the famous Rose of Strathallan family. It is men of this stamp who deserve the thanks of their country and a share of the honors it may have to bestow.

In our notes of the Clydesdales of Shamrock Avenue Stock Farm, owned by Mr. Thos. Good, Richmond, Ont., we omitted those relating to Doncaster 2171. Doncaster (1813, 2371, a bright bay, white face, near hind leg white, foaled May, 1884, was bred by Mr. John Stewart, Chesley, Ont., sire, Pride of Campbell town (1327) (3350), by Pride of Aberdeen (1241), by Toppsman (886); dam, Bell of Richmond, imp. (136) (3527), by Prince of Wales (3364), by Prince David (613), by Drew's Prince of Wales (673), 2d dam, Bell of Clochkie (2543), by Doncaster (238), 3d dam, Jess, by Loudoun Tam (508). Doncaster will be 3 years old in May, and is very promising. He stands about 16 hands and is of the blocky order of build, very even throughout, with the best legs and feet, well feathered, and is a beautiful mover at all paces. We predict for this horse a useful career in the stud. His quality and make up are nearly all that could be desired.

Shorthorns.

Mr. James Ross, Harrison, Ont., has purchased a pure Shorthorn heifer, in calf to General Grant, owned by Mr. S. Johnston, Howick. She was got by Lord Bright Eyes, and out of the dam, Lady Jane Young.

Messrs. Ormsby & Chapman, of Oakville, Ont., have sold a pure Shorthorn bull, bred by Major Lloyd, of Oakville, sire, Prince King, dam, first prize heifer, Hesper, to Mr. G. L. D. Cremins, of Clarkson, Ont. also two imp. Yorkshire pigs, one to Mr. J. Field, Ancaster, and one to Mr. Frank Duck, Port Credit.

Mr. J. D. Pettit, Paris, Ont., writes that his recent sale of Shorthorns was favored with admirable weather and a large crowd, and that good prices were realized, considering the depressed times. He is now arranging with his tenant, Mr. R. W. Inson, to continue the breeding of Shorthorns, and hopes that he may still be favored with a call from the lovers of the red, white and roan.

Mr. R. N. Switzer, Switzerville, Ont., has just sold to Mr. A. Foster, three head of pure bred Shorthorn cattle, to be shipped to Turtle Mountain, Man., consisting of one bull and one cow with calf by her side. The bull promises to make an extraordinary animal, and was very successful in the show-ring as a calf last fall. The low Butterfly 4th is an exceedingly fine young cow of good quality, and a very choice milker. She has taken twelve first prizes in different show-rings, and will make a good foundation upon which to build a herd in the great North-West.

At the sale of Messrs Frank R. Shore & Bros, White Oak near London, Ont., the offering will be a very attractive one. It will consist chiefly of cows and heifers descended from recently imp. cows, topped with the best imp. Cruickshank bulls, and in profitable breeding form, with calves at foot and safe in calf again to imp. Vermilion. This bull is also included; he has proved himself an extra getter. Being all red his calves, even from white cows, are the most desirable colors. He will be sold because he can no longer be used with advantage, as several of his heifers are retained in the herd. (See advt.)

Mr. John J. Braven, Byng, Ont., is now the possessor of 7 head of pure Shorthorns. The first - 2 cows, each with a heifer calf were bought in January, 1886, from V. Ficht, Oriol. One, Butterfly, by Musstrooper, traces to old imp. Melody. The calves were all sired by Mr. Ficht's bull, Lewis Strathallan, out of the old Rose of Strathallan. One of these has since produced a pair of heifers, twins. The stock bull is Hilpa Duke of a dark red, also from Mr. Ficht's herd. Mr. Braven also keeps pure bred Berks. He is blessed with residence in a locality where good stock is appreciated.

Mr. Alexander Ritchie, of Inverary, Ont., writes: "Since October last I have made the following sales of pure bred stock: To Isaac Holder, Battersea, Shorthorn bull calf, Henry Scott, Millburn, one yearling Shorthorn bull, M. Fair, Glenburnie, one pair of Southdown ewes; Miss Libby, Spooner, Latimer, one pair of Southdown ewes; I. Murray, Raiton, one Southdown ram; Mr. Harris, Perth Road, one Southdown ram; Reuben Spooner, Kingston, one Southdown ram. One year ago I purchased a Shorthorn bull, Britannia Duke 4th, from Wm. Douglas, of Caledonia. We are now receiving the best calves we ever had, and all of a dark color. We have also to hand a fine lot of Southdown lambs. There is a better demand for improved stock and more enquiry about them than ever before, in this part of the country.

Messrs. John Ackroy & Son, Thistleton, Ont., purchased from Mr. J. C. Snell, Edmonton, previous to the issue of his sale catalogue, the two year old Shorthorn bull Glamis, a red bull by imp. Lord Glamis, out of an Isabella cow descended from the Mina family at Kinellar. Glamis was first prize at the South Ontario Show last fall, and 1st prize and 1st prize at the Ontario Central Fair at Port Perry. He is described as a show bull in first-class company anywhere, full of style, substance and quality. Messrs. Ackroy have displayed good judgment and taste in their selection for the nucleus of a first-class herd in the purchase of this bull, and the fine heifer Mina of Kinellar, for which they paid \$350 at Mr. Snell's sale last year, and the imported cow Juliet and her heifer calf by imp. Baron Lenton, at \$445 at the recent sale at Willow Lodge.

The old Experimental Farm bull, Prince Hopewell - 1210 - a near kinsman of the prize-winning Prince James, owned by J. Fothergill, Burlington, and like him, bred by J. Hunter, Alma, is on his way to the English market. He is now nine years old, and was used for three years as stock bull at the Experimental Farm, Guelph. There he became vicious (perhaps some of the young men then attending that institution can tell us how), and was purchased by I. Shaw, "Riverside," Woodburn, just in time to save him from going to the butcher. Except an injury received in a fool-hardy moment, when his last owner attempted to handle him alone, no accident has occurred during his five years sojourn at Riverside. Two-thirds of the herd there are of his get, making it very clear that a cross bull can be handled without accident if caution is exercised. Not one of his offspring in the above herd has shown any signs of viciousness, making it pretty certain that he did not become sour of temper by inheritance.

At the recent sale of Mr. J. C. Snell's fine herd of Scotch-Aberdeenshire-bred Shorthorn cattle, the 3 grand show heifers, May 15th, a two-year-old of which mention has been heretofore made in our columns, Lady Maud, a two year old, and Clematus a yearling, were purchased by that veteran breeder of Cruickshank cattle, James I. Davidson, for shipment to Iowa. He purchased them for Jno. McHugh, a prominent breeder of that State. The 2 heifers were a bargain at \$950, May 15th bringing \$300 off. We predict that this trio will be heard from in show-rings of the West. In a previous number of this JOURNAL, we made note of a sale by Jos. Magill of Janerville of his prize-winning twin calves of last fall, also a Cruickshank bred yearling bull of November, 1885, and his full sister of November, 1886, to this same party, at good round prices. None of these cattle have been removed, and will not be, we believe, until the "Westerner" has secured sufficient of good ones to make a car lot. It is worthy of note that the hottest show-yard contests in the West is largely a competition for supremacy among Scotch Shorthorns, most of which have been bred by or passed through the hands of Canadian breeders.

From Mr. Jas. Thompson, Prince Albert, N.W.T., we learn "Mr. C. Robinson, of Carrot River, owns 75 head of Shorthorn grades and to this he added in the autumn of 1886, two pure Shorthorn bulls and a heifer and a car load of sheep, from Ontario. Mr. Sanderson and Mr. D. Finison, both of Carrot River settlement, have each a good herd of grade cattle. Messrs. Snell & Miller brought a car load of heifers from Ontario last June, and a pure Shorthorn bull and heifer. Mr. J. McAul also bought three Shorthorn heifers. Mr. Wm. Deihl, of Carleton, up to the time of the rebellion, had probably the best herd of grade cattle in the whole district, but they were all driven off by the rebels. He is building extensive stables, and intends bringing about 50 head of the best grade heifers he can get, a Shorthorn bull and some sheep. Mr. Andrew Spence, of Red Deer Hill has also a good herd of grade cattle. Mr. J. McArthur, Mayor of Prince Albert, is the largest sheep owner in this part. To give you an idea of the success of sheep-raising here, I may mention that of near 200 lambs dropped in his flock last spring, he lost but three or four. The challenge stock cup, valued at \$50 that we got at last show, was for best herd of grade cattle; and our stock have done well this winter."

Mr. Amos Cutler, of Coldstream, Ont., writes: "Owing to the death of my brother and partner, I have decided to have a closing out sale of our entire herd of Shorthorns. The foundations of this herd were selected with great care and considerable expense, from some of the best herds in the province. Two from the Experimental Farm, Guelph, are noble specimens of

E. W. WARE, Burlington, Ont., breeder of pure Ayshires and Jerseys. Stock for sale.

FOR SALE - Pure Berkshire Pigs of both sexes and various ages, with 12 crosses of the best blood. Also a few young SHORTHORN BULLS, two ready for service, and will be sold cheap. THOS. SHAW, Woodburn, Co. Wentworth

DORSET HORNED SHEEP.

Dorset Horned Sheep, the most prolific, producing lambs twice within the year, the most hardy, and the earliest to attain maturity. May is the best month to procure drafts of this increasingly popular breed of sheep. Full particulars of DUKE & SON, Doncaster, England. my-tf ON, STANFORD & ROLPH, Markham, Ont.

SHORTHORNS FOR SALE

SEVEN BULLS From ten to seventeen months old, and a number of COWS AND HEIFERS, all registered in D. S. H. Book. Address: J. & W. B. WATT, SALEM, ONT.

POULTRY.

EGGS from P. Rocks and Light Brahmas (first prize strains) \$1 for 12. Cash to accompany orders. Eggs carefully shipped in barrels. Satisfaction guaranteed. Address, G. H. RICHMOND, Victoria Av. N., Hamilton, Ont.

P. G. KEYES, Ottawa, Ont., breeder of STANDARD P. WYANDOTTES. Average score of breeding pen, 92 3/5 points. Eggs, \$2 per 12. Stock for sale. Write. mr-5

WHITE LEGHORNS EXCLUSIVELY - I make a specialty of this breed, and am at all times prepared to furnish No. 1 stock. Eggs, \$1 per 12. Correspondence a pleasure. ap-3 Address, GEO. LEE, Highgate, Ont.

THE PLYMOUTH ROCK Cockerel that won 2nd at Toronto Industrial, 1886, was purchased by me, and is now mated with hens and pullets (Mackay's strain), eggs, \$1.50 per 12. Also W. Leghorn eggs (Sutcliffe's strain) \$1 per 12. H. W. G. SIBBALD, Meadowvale, Ont. ap-3

SPRING CREEK POULTRY YARDS, ASBERFOYLE, ONT. WM. B. COCKBURN, Proprietor, has for sale eggs from choice prize birds of Rouen, Aylesbury and Pekin Ducks at \$1 a doz. mar-3

PLYMOUTH ROCK EGGS FOR SALE, of the famous Pilgrim strain. Pullets all sold that can be spared at present. THOMAS SHAW, Woodburn, Co. Wentworth.

WESTMINSTER POULTRY FARM

J. W. BARTLETT, Proprietor, Lambeth P. O., near London, Ont. EGGS FOR HATCHING from choice PLYMOUTH ROCKS, WYANDOTTES, and DARK BRAHMAS.

This season I bred the highest scoring P. Rock Cockerel ever shown in Canada, with one exception, scoring 95 points. Eggs, \$2 per 12 from same yard.

In Wyandottes and Dark Brahmas my birds made the highest score ever made in Canada. Wyandottes, 94; Brahmas, 95 points. The breeding birds in both these yards score from 90 to 94 points, proving them the best in Canada. Eggs, \$3 per 12.

STOCK AND EGGS FOR SALE

From the celebrated MOUNT PLEASANT STOCK AND FARM For many years our stock has been noted in the show rings of Canada and the U. S. A

Cotswolds, Berkshires, Shropshires.

POULTRY including Mammoth Light and Dark Brahmas, Plymouth Rocks, Black Spanish, Colored Dorkings, Black Javas, Golden Sebright Bantams, Bronze Turkeys, Pekin and Rouen Ducks and White Swan Geese.

Dominion agent for Davies' Cattle Sheep and Swine Labels for registering and numbering stock. Finely executed cuts always on hand. Prices low; send stamp for circular. ap-3 F. W. HODSON, Brooklin, Ont.

EGGS from Light Brahmas, Buff Cochins, B. B. Neck Games, Black Hamburgs, W. F. Black Spanish, Black Jvns, \$2.00 per setting. Houdans, Plymouth Rocks, White and Brown Leghorns, and Golden Sebright Bants. \$1.50 per setting. All eggs warranted fertile and pure. About half of my breeding birds were imported from the best yards in America, the rest are direct from imported stock. A. G. H. LUTJES, the Barton Poultry Yards, Hamilton, P.O., Ont. (See April advt.) Write for prices won.

EGGS FOR HATCHING

FROM the best yard of Brown Leghorns in Ontario. (Any one proving or producing a better yard will get a setting of eggs for nothing.) Also eggs from my prize-winning Aylesbury Ducks at only \$1 per setting each. Some Extra Choice Young Berkshire Pigs for sale at wheat price; no better can be found on the continent. Address, R. A. BROWN, Lock Box 275, St. Marys, Ont.

Or call at my farm, Cherry Grove, and inspect stock and be convinced. ap-2

their tribes. The one, Baroness Wild Eyes, O. E. F., was imported in the cow from the herd of Sir H. Allsopp. Got by the Duke of Hindlip ad, (46246), dam, Baroness Wild Eyes, by Wild Duke 3d (42612), g. d., Wild Duchess 3d, by Marquis 6th (34777). The other, Cambridge Queen 2d, a grandly proportioned, deeply fleshed animal, got by the noted imported bull Baron Berkeley (36158), the property of Mr. F. W. Stone, Guelph, Ont. Dam, Cambridge 10th, by King of the Ocean (1619), g. d., Cambridge 7th, by 1.1th Duke of Thorndale (31024). Seraphina Duchess 6th, from the herd of Mr. W. Williams, of San Francisco, has proved herself a good breeder; got by the 7th Lord of Oxford (17586); dam, imported Lady Seraphina 6th, by Oliver 1st (24683), g. d., Lady Seraphina 3d, by Duke of Barrington (11565). These with their progeny, together with those of other families worthy of mention, will be sold without reserve on day of sale. All are registered in D. S. H. B. They have not received any special preparation for the sale and will be found in good breeding condition. Catalogues furnished on application. (see advt.)

About 1,000 farmers and others attended at the sale of Mr. Jno. D. Howden, Columbus, Ont., on March 15th. The stock was in prime condition, and sold well. The proceeds of the sale summing up fully \$7,000. Below we give a list of prices of pure-breds: Cows and heifers - Claret Queen, imp., John Davidson, Balsam, \$240; Claret Maid, John Vipond, Brooklin, \$23; Claret of Kinlaidie, I. C. Colwell, Whitby, \$230. Allspice, ditto, \$81; Liza Logan, Hugh Howden, Columbus, \$115; Lizzie Logan, J. A. Proctor, Beaverton, \$125. Katie Logan, Hugh Howden, \$180; Mary Logan, J. C. Hanley, Read, \$150; Hannah Logan, F. Warren, Beaverton, \$120; Maggie Logan, J. C. Hanley, \$75; Jennie Logan, ditto, \$80; Emma Logan, Robt. Douglas, Columbus, \$70; Duchess 4th of Balsam, John Dunn, Balsam, \$170; Duchess 5th of Balsam, G. R. Proctor, Beaverton, \$75. Duchess 6th of Balsam, Hugh Howden, \$55. Bulls - Rose Knight, imp., W. G. Dow, Whitby, \$145; Clamfer, F. Slabback, Balsam, \$40; General Logan, G. R. Proctor, Beaverton, \$145; Grand Coult, Adam Duff, Myrtle, \$200. Horses - Columbus Lad, J. Johnston, Greenbank, \$281; Columbus Maid, Thos. McCroy, Balsam, \$500; Beauty, J. T. Coates, Shirley, \$175; Jennie D., Robt. Douglas, Columbus, \$201; Bell Boyd, ditto, \$140; Nance, J. T. Coates, Shirley, \$164; Kate, Geo. Ormiston, Raglan, \$200; Mag, W. Bright, Raglan, \$203; Poll, R. Douglas, Columbus, \$225; Topsy (foal), ditto, \$75. The Shorthorn cow, Liza Logan, 13 years old, and 8 of her descendants brought \$1,250, in addition to which, \$500 had been received for bulls sold previously, making a total of \$1,850; and yet some men tell us that it pays better to keep scrubs.

Mr. J. C. Snell's sale of Shorthorns at Willow Lodge, Edmonton, Ont., on April 7th, was a decided success in every respect. The weather was fine, the company large and enterprising. The cattle were a uniformly good lot, in fine condition, without an exception. The bidding was prompt and steady. The auctioneer, Mr. John Smith, of Brampton, did his part admirably. The sale was well conducted and skillfully managed, and the prices for these times must have been fairly satisfactory. The following is a report of buyers and prices: Queen Bess 7th, imp. and c.c., J. A. Proctor, Beaverton, Ont., \$400; Cleora, imp. (calf died), Roderick McLennan, Lancaster, Ont., \$310; Ury 15th, Jas. I. Davidson, Balsam, Ont., for U.S. \$390; Mina 10th and b.c., Jas. Oke, Alvinston, Ont., \$405; Beauty 6th, imp. Donald Robertson, jr., Meaford, Ont., \$315; Julia Lenton, Henry Groff, Elmira, Ont., \$275; Clematis, James I. Davidson, for U. S., \$300; Rose of Allandale, Horace Chisholm, Paris, Ont., \$200; Belladonna, J. A. Proctor, \$210; Clarissa, G. R. Proctor, Beaverton, Ont., \$250; Juliet, imp. and c.c., John Ackroy & Son, Thistleton, Ont., \$445; Beauty 7th, imp. and b.c., F. S. King, Beaverton, Ont., \$200; Claret Princess, imp., H. Parker, Durham, Ont., \$110; Flora 8th, imp., John Sparrow, Chatsworth, Ont., \$200; Victoria 3d and b.c., A. A. Armstrong, Speedside, Ont., \$255; Lady Maud, Jas. I. Davidson, for U. S., \$260; Ruby Hill 12th and b.c., R. McLennan, Lancaster, Ont., \$210; Mary Booth 2d, Wm. Maines, Elora, \$120; Pauline Irwin, H. Snell & Sons, Clinton, Ont., \$120; Rosa Irwin, John Wilson, Brampton, Ont., \$105; Maude Booth, Wm. Wilson, Edmonton, Ont., \$100; Jubilee, 5 months, John Ackroy & Son, Thistleton, Ont., \$140; Victoria Regina, John Wilson, Brampton, Ont., \$90; Maggie Booth, John Gillespie, Innerkip, Ont., \$100; Ida's Bud, John I. Hobson, Mossborough, \$80; Victoria, Jas. Oke, Alvinston, Ont., \$75; Maid of the Gore, A. F. McGill, Hillsburg, Ont., \$95. Bulls - Count of the Empire (15039), imp., R. R. Sangster, Lancaster, Ont., \$300; Vice Consul, H. Snell & Sons, Clinton, Ont., \$240; Chief Baron, Geo. Redpath, Harrison, Ont., \$195; Chief Justice, John Sockett, Rockwood, Ont., \$175; Julius Caesar, John Sparrow, Chatsworth, Ont., \$175; Prince of Fairholm, J. H. Reed, Georgetown, Ont., \$124; Jaysec, Wm. Cornelius, Amaranth, Ont., \$120; Baron Nonpanel, Jas. Brown, Norval, Ont., \$100. Total, 7,430. Average for females, \$224; average for bulls, \$172; average on all, \$212.

Galloways.

Mr. Thos. McRae, Guelph, mentions: "Our Galloways wintered well and are looking fine. Susan of Balg dropped a heifer calf Dec. 25th, Belted Lass a bull calf Mar. 10th, Creely, a heifer calf Mar. 12th, and Hannah, a heifer calf, April 1st. All the calves are doing well."

At the sale of Mr. W. Kough, Owen Sound, about one hundred of the leading farmers of the neighborhood sat down in the implement shed to lunch at noon. The principal piece de resistance was a round of beef, weighing 35 lbs., and taken from a heifer 19 months old, sired by the Galloway bull, Closeburn, 64; the dam being a small Canadian scrub cow. The beef was pronounced by all to be fine, juicy and tender, as good as could be desired. Many Aberdeen men said that they could not grow better in the land of their birth. The production of such a piece of beef from so young an animal proves the early maturity of this cross on the native cattle. The early maturity of the pure-bred Galloway was proved by the 21 months heifer in the stable, weighing 1250 lbs. After lunch, the sale by Mr. Wm. Beaton took place. The Shorthorn bulls brought \$86, \$100, \$100, and \$108. The Shorthorn cow, D. H. B., \$80. A Canadian herd book Shorthorn cow, 10 years old, \$50; a Red Polled cow, \$25; grade cow, \$40; half-bred heifer calves, \$25, and half-bred bull calves, \$30 each. Mr. R. P. Frazer, of Minnesota, bought several animals, and after the sale bought the Galloway bull calf, Salamis (2831), which a week after, he loaded on a car for

hi-home in Manitoba. The bidding at the sale was rather slow, but the auctioneer merited great praise for the way he conducted the sale. The pure-bred Galloways in their stags were much admired, the bull Closeburn looking better even than when awarded the silver medal in Toronto and Guelph, last fall.

Aberdeen-Angus

We have just received the new private catalogue of the Aberdeen Angus Polled herd, owned by Messrs. Hay & Paton, of Kinnoull Park, New Lowell, Ont. The very interesting introduction would make no unfitting prelude to a herd book. Of bulls and bull calves there are no less than 13 head, and 23 head of cows, heifers and heifer calves. The name of the breeder of both the dams and sires is given, and there are foot notes to many of the pedigrees. Black Judge [1], bred by John Morrison, Knockmill, Turiff, stands at the head of the herd, a bull which has overcome every antagonist, and Canada has had some good ones during the four years of his show yard career. In 1883 this bull was "at the head of the invincible 7" in the herd, which for the fifth time, carried to New Lowell the championship of the Dominion. Nine of the bulls were calved in 1886, and most of them contain a goodly share of the blood of the famous Water-side herd. No less than 14 of the female are imported, and from the Knockmill, Balgreen, Montblauy, Pitgair, Blair-shinnoch, Auchbreck, Lamside and Coyahie herds. One of the most valuable features of the herd consists in its wonderful breeding qualities. Notwithstanding the high condition in which the herd has usually been shown, there is not one of them but has bred regularly. No less than six pages of the catalogue are occupied with the prizes of this young herd, which was only established in 1882.

Herefords.

Mr. R. Mackie, Oshawa, Ont., sold to Messrs. Sotham & Stickney, of Pontiac, Mich., 11 head of Herefords—3 bulls and 8 females. The same gentlemen also purchased from Mr. L. G. Drew, Oshawa, 11 head—4 bulls and 7 females; and from Mr. J. O. Clifford, of same place, 1 bull and 1 female, which made a carload—the second one which Mr. Sotham has purchased from Oshawa this spring. Mr. R. Mackie has also sold to Mr. Jas. Lawrence, of Calgary, 5 Hereford bulls and 1 heifer, shipped April 26. Mr. Lawrence is starting a ranch at Calgary, and purchased nearly a hundred grade heifers at Oshawa, and will cross them with the Hereford bulls.

Holsteins.

Mr. R. S. Stevenson, Ancaster, has invested in the breeding of Holstein cattle. He has made a start in the right direction by getting good stock to begin with. He and Messrs. Gurnett & Son purchased a bull and three heifers at the combination sale of Holsteins at Toronto, held last spring by Messrs. Lord, Williams, etc. Mr. Stevenson has since bought out Mr. Gurnett's interest. These have dropped two heifer calves, sired by the celebrated bull, Barrington.

Messrs. A. C. Hallman & Co., New Dundee, reports "Holsteins are rapidly marching to the front. We have enquiries from all quarters, which is a good indication. Our young cows are doing remarkably well. We have some under test, the reports we will give later. Our herd bull, Prairie Aggie Prince, is developing wonderfully well. His weight on the 6th inst., two years old on that day, was 1735 lbs., an average daily gain the last two months of 3½ lbs. per day. His calves are strong, nicely marked, and show very plainly the characteristics of their sire. We have nine calves dropped, five males and four females. Sold four bulls, and have still some of our choicest ones for sale."

The Bollert Bros., Cassel, Ont., write: "Our Holstein-Friesians have stood the winter well, they have several very fine calves dropped of both sexes. Our three-year-old heifer, Bonnie Queen, dropped a beautiful heifer calf. Before coming in her udder measured 5 ft. 6 inches in circumference; something never before seen by the oldest men around here. Since last reported, we sold the bull Pride of Bertie to Mr. P. E. Miller, Amigan, Ont.; two heifers, 7 months old to Mr. E. Pierson, of Walmer, Ont. These are, we believe, the finest calves we ever saw of this breed. One of them being of the cow that won first prize and diploma at the Provincial last fall, and was half sister to first prize yearling there. Mr. Pierson is making a good start in the right direction. The demand for first-class Holsteins is on the increase. We have already an order for bull calf ahead of supply."

Ayrshires.

Mr. Geo. R. Kelly, Ancaster, Ont., writes: "Am highly pleased with STOCK JOURNAL, find it in all ways competent to direct the mind of the young farmer. Wishing to improve our stock and seeing the advertisement in the JOURNAL, I purchased the Ayrshire bull, James Main, from Mr. E. W. Ware, Hamilton, Ont. Our herd is in a very promising condition this spring. We have only one Ayrshire cow, purchased from Mr. Jardine, the rest are about equally divided between Durham and Ayrshire grades. We return our Durham grades to our Durham bulls, so as to breed each after its kind. We have also some fine Plymouth Rocks, which are looking quite promising."

Sheep and Pigs.

Messrs. W. & M. Bell, of Springfield, Ont., have recently purchased from Messrs. John Miller & Sons, two imported Royal winning yearling Shropshire ewes and three ewe lambs. The imp. ewes have since each dropped two lambs; three of them are ewes and one a ram.

Mr. John Jackson, Woodside, Abingdon, writes: "The Southdowns have done uncommonly well this season, lambs rather late, but turning out a large crop, of good quality; the first 31 ewes dropped 54 lambs. Business looking up. Considerable inquiry from Americans, and have already made a few sales in our own country."

Mr. Anthony Edwards, of Chatham, Ont., writes that one of his Shrop ewes dropped a very fine pair of lambs on the 14th of April. At the time of birth the ram weighed 6½ pounds, and the ewe 8 pounds. He purchased the dam last fall from Geary Bros., London, for 30 dollars. His flock are doing well. We hope he may have success as a breeder of Shropshire Down.

Messrs. J. G. Snell & Bro., Edmonton, Ont., report the following sales of Berkshires since Jan. 1st: A. I. Woodward, West Montrose, Ont., one boar; Geo. Ballachey, Bradford, Ont., boar and sow; Colden & Lee, Iowa City, Iowa, one boar; Elgin Alway Simcoe, Ont., one boar; Agricultural College, Guelph, Ont., one boar and two sows; Jno. B. Thomson, Plattsburg, Mo., two imported sows; D. J. Mattocks, Toledo, Ohio, one boar and one sow; A. F. Woodward, West Montrose, Ont., one sow; J. T. McFee, Lennox, Iowa, one sow; Nicholas Stillins, Sunderland, Ont., one boar; Jas. R. Davis & Sons, Woodstock, Ont., one boar; Smith Bros., Innerkip, Ont., one imported boar and one sow; Edward Greensward, Norval, Ont., one sow; Ishmael Bartlett, Abingdon, Ont., one boar; J. C. Swackhamer, North Ridge, Ont., one boar and one sow; Wm. Wilson, Brampton, Ont., one sow; J. W. Russell, Hornby, Ont., one sow.

WILLIAM REDMOND, MILLBROOK, CO. DURHAM, IMPORTER AND BREEDER OF DURHAM CATTLE

The herd now consists of forty head of Cruickshank strain, some imported, all registered in the new Dominion Herd Book. One imported bull, 2 years old, roan, for sale, from an imported cow, one all red, from the same cow, 9 months, a grand calf; and three of the calves that got the herd prize at Toronto last fall, by Challenge, bought from J. & W. Watt. He took first prize at three of the leading fairs in the Dominion. Also some good heifers for sale, all with calf and several cows, some with calves at foot. The young bulls are a nice lot. They are from 12 to 15 months old and have made 100 pounds a month since they were calved.

PRICES TO SUIT THE TIMES. Address WM. REDMOND, Millbrook, Ont.

Colonus Stock Farm. Shorthorn Cattle

of the highest breeding and individual merit, and

OXFORD DOWN SHEEP.

Young stock for sale of both sexes. WM. MURRAY, CHESTERFIELD, ONT.



C. G. Charteris & Son, BEACHWOOD FARM CHATHAM, ONT., BREEDERS OF PURE SHORTHORN CATTLE

The splendid bulls Lord Byron (1881) and Crown Prince (12469), both recorded in the D. S. H. B., are offered for sale, along with a number of good grade cattle. The former has been three years the stock bull at Beachwood, and has left some fine stock. The latter, a dark red, calved Jan. 20th, 1884, got by Brilliant (12010), dam, Allie by Bedford Lad (941), has also proved himself a good and sure sire. 2 Miles from Chatham on the G. T. R. Visitors met at station. nov-12

JAMES DEANS, Spruce Farm, Box 6, Paris Station P. O., Co. Brant, Ont., BREEDER OF SHORTHORN CATTLE
Two young bulls for sale, sired by Brigade Major—500.
Two miles west from Paris Station, on two lines of the G. T. R. Visitors met at the station.



SHORTHORNS AND SOUTHDOWN SHEEP FOR SALE.



A CHOICE LOT of young Cows and Heifers, in calf by the young Cruickshank bull Crimson Lavender—3493—bred by Arthur Johnston, Greenwood, Ont., and some heifers and bull calves also from above bull and No. 1. All the above calves eligible in the new herd book. Also a fine lot of yearling ewes and ewe lambs and yearling rams and ram lambs, and some older ewes, all bred from imported stock. Do not miss the chance if you want a ram, some ewes or some Shorthorns. Come and see us or write. Visitors welcome. SETH HEACOCK, Oakland Farm, Kettleby P. O. Aurora Station, N. & N. W. R., 30 miles north of Toronto, shipping station.

EXECUTORS' SALE

Of the personal property of AMOS and the late DAVID CUTLER, ON THURSDAY, MAY 19th, AT COLDSTREAM, 10 miles south of Ailsa Craig on the G. T. R., and seven miles north of Komoka on S. div. of G. T. R., comprising — 22 HEAD OF FIRST-CLASS —

SHORT HORNS

7 MALES and 15 FEMALES, including Wild Eye, Seraphina, Cambridge and other families, mostly in calf to Gwynne bull Buckhurst—3186—
13 Head of High-Grade Cattle, and 13 Roadster and Other Horses, and Berkshire Hogs.
Catalogues furnished. Morning trains met. Sale to commence promptly at 10 o'clock. TERMS: 7 months' credit on approved joint notes. 6% per annum off for cash. Refreshments at noon. No reserve (See Stock Notes.) AMOS CUTLER, COLDSTREAM P. O. Executors. C. A. ZAVITZ, O. A. C., Guelph, W. A. CUTLER, Coldstream P. O., CARRIE V. CUTLER, Coldstream P. O.

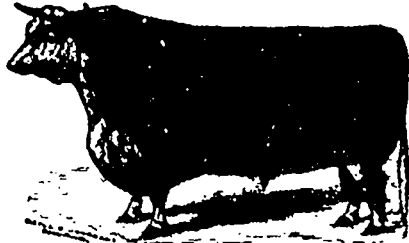
IMPORTANT PUBLIC SALE

HIGH-CLASS SHORTHORNS

On TUESDAY, JUNE 7th, 1887, We will sell at Public Auction, at our farm "1 HORNVILLE," 5 miles south of London, Ont. 30 HEAD OF FIRST-CLASS SHORTHORN CATTLE—25 Cows and Heifers and 5 Bulls—of the popular Scotch sort, represented by Cruickshank, Campbell, Marr, and other strains, mostly topped out with the highest class of Cruickshank Bulls. Most of the cows will be sold with calves at foot, which will go with their dams, and all of sufficient age will be in calf to the imported Cruickshank Bull Vermillion (60587). This splendid bull will also be sold, together with a few high-class young bulls of the same breeding, and in form good enough for show animals. TERMS—6 months' credit on approved notes, or discount at the rate of 7 per cent. per annum for cash. Catalogues ready by the 1st of May. FRANK R. SHORE & BROS., WHITE OAK, ONT.



LOWLANDS HERD



A CHOICE LOT OF

YOUNG HEREFORD BULLS FOR SALE.

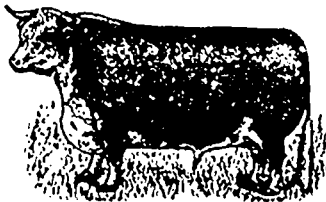
All eligible for or already entered in the "American Hereford Record." Amongst the sires of my herd are Auctioneer, Careful, Hayden Grove, Downton Boy, King Pippin, and Cassio. Also a fine lot of imported

Welsh and Shetland Ponies for Sale.

E. W. JUDAH.

"Lowlands," HILLHURST, P. Q.

THE TUSHINGHAM HEREFORDS



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

J. W. M. VERNON,

Tushingham House.

Waterville, P. Q.

WATERVILLE is on the main line of G. T. R., not far from the UNITED STATES boundary.

POINT CARDINAL HERDS.



HEREFORDS

Selected with great care from the celebrated herds in England. At the head of the herd stands the imported Marlow bull Rambler 6th (6630) 13514.

SHORTHORNS

Heifers and bulls for sale, mostly sired by imported Duke of Hazelcote 68th, 65707.

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

The Park Herd of Herefords,



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

F. A. FLEMING,

Weston, Co. York, Ont.

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

OAKLANDS 'JERSEY' STOCK FARM.

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



Cows with well-authenticated test of from 14 lbs. to 24 lbs. 13 oz. in one week, and from 81 lbs. to 106 lbs. 12 1/2 oz. in 31 days are in this herd. Young bulls (registered in the above herd book) for sale from \$100 to \$500 each.

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

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

A. C. HALLMAN & CO.,

NEW DUNDEE, WATERLOO CO., ONT.



Importers and Breeders of Thorough bred

HOLSTEIN-FRIESIAN CATTLE.

Herd headed by the noted prize winner Prairie Aaggie Prince, H. F. H. B. No. 1 first prize at the Industrial and Provincial in 1886; dam, Prairie Flower, 5 yr. old butter record of 20 lbs. 12 oz unsalted butter per week. This herd has been crowned with more honors in the show-ring than any other herd in Canada. Selections made from the finest herds and most noted milk and butter producing families in America. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto, "QUALITY." Stock for sale. Visitors welcome. Correspondence solicited.

JAMES DRUMMOND,

Petite Cote, Montreal.

Importer and Breeder of PURE-BRED

AYRSHIRE CATTLE



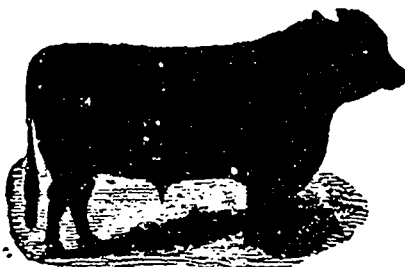
Of Large Size, and from Choice Milking Strains.

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

Young Stock on hand at all times for sale. fe-1y

ALTON HALL STOCK FARM.

H. SORBY, Proprietor.



IMPORTERS AND BREEDERS OF

GALLOWAY CATTLE

AND PLYMOUTH ROCK FOWLS.

Galloway Bulls, Cows and Heifers for sale,

(near Guelph.) H. SORBY, Proprietor, Gourock, Ont.

The Manor Stock and Dairy Farm



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

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

F. N. RITCHIE,

Ste. Anne la Perade, Co. Champlain,

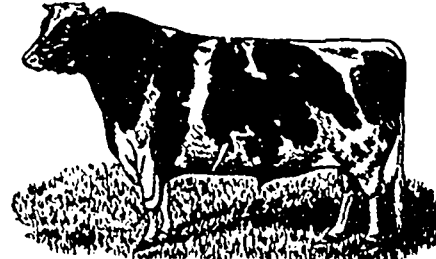
on line C. P. R., near Quebec.

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

M. COOK & SONS, Aultville, Ont.

Importers and breeders of

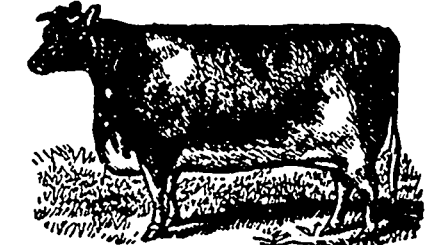
SUPERIOR STRAINS OF HOLSTEIN-FRIESIANS



Herd headed by the famous bulls: Sir Archibald, whose dam, Krontje, has a record of 96 1/2 lbs. of milk in a single day, and 18 lbs. 12 oz. unsalted butter in seven days, and who has won more medals and first prizes at the leading fairs during the last two years, both individually and as head of herd, than any other Holstein bull in Canada. Jennie B 3d's Barrington 4207, out of Jennie B, who has a milk record of 8 1/2 lbs. at four years of age, and by the famous Barrington out of Hamming, with a record of 99 lbs. milk in a single day. Cows all selected with great care and from the most noted milk and butter strains. Young Bulls for sale at a bargain. Write to us before purchasing. Satisfaction guaranteed.

J. Y. REID, HILLSIDE, ONT.

(2 1/2 miles south from Paris.)



BREEDER of Shorthorn Cattle, all registered in the new Dominion Herd Book. The highly bred Bates bull, 20th Earl of Darlington, bred at Bow Park, at head of herd.

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

James Geddie, Manager, PARIS, ONT.

MAPLE LODGE STOCK FARM

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

We breed and have for sale first-class

SHORTHORNS, LEICESTERS and BERKSHIRES

The choicely bred bulls BARON CONSTANCE 5th and DUKE OF COLONUS head the Shorthorn herd. A few very fine young bulls and a choice lot of young cows and heifers for sale. Prices right.



Come and see us. JAS. S. SMITH, Maple Lodge P. O., Ont.

THE GLEN STOCK FARM,

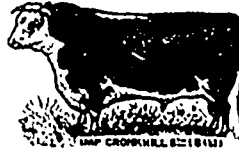
Innerkip, Oxford Co., Ont.

SCOTCH SHORTHORNS,

HEREFORDS,

ENGLISH SHIRE HORSES,

BERKSHIRE PIGS.



SEVERAL grand BULL CALVES FOR SALE at reasonable prices, out of imported cows by imported Earl of Mar (47852), winner of Gold Medal at the Grand Dominion and 30th Provincial Show and numerous First Prizes, also some very fine Hereford heifers and bull calves, by imported Cronkhill 8th, out of imported cows, for sale. Cronkhill 8th, our Hereford stock bull, was winner of silver medal for best Hereford bull of any age, at the Industrial Exhibition, 1884, and 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.

JOHN DRYDEN,



BROOKLIN, ONT.

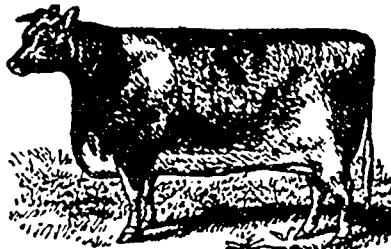
BREEDER AND IMPORTER OF

Shorthorns, Clydesdales, and Shropshire Sheep.

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

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.

12 YOUNG BULLS FOR SALE.



WE are offering perhaps the best lot of young bulls we ever had, several new fit for service.

Amongst the number are some choice show bulls. All are of good colors, well grown, on straight legs, and carry a lot of natural flesh.

PRICES

TO SUIT ALL.

Parties meaning business will find no difficulty in making a purchase.

A few YOUNG COWS also to spare.

RICHARD GIBSON,

Belvoir Farm, Delaware, Ont.

100 PURE-BRED ABERDEEN-ANGUS CATTLE.



MOSSOM BOYD & CO.,
BIG ISLAND STOCK FARM,

BOBCAYGEON, ONTARIO, CANADA.

Ericas, Prides, Windors, Victorias, Sybils, Kinnachtry Bluebells, Westerton Roses, Hallindaloch Couquettes, and Lady Fonnys, and animals of other good families, both male and female, for sale.

Bobcaygeon is in the County of Victoria 30 miles east of Toronto and 20 miles east of Lindsay, and is reached from Toronto by the Midland Railway, a branch of the G. T. R., via Lindsay, with which the boat makes close connection. Telegraph and Post Office, Bobcaygeon.

ALLEN'S SHORTHORN HISTORY
BY HON. L. F. ALLEN.

The only work of its kind in existence. FOR SALE AT THIS OFFICE. Price, \$3.00, post-paid, or will be sent to any one forwarding us five new subscribers to the JOURNAL for 1887.

RUGBY FARM



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

—BREEDER OF—

Shorthorn Cattle and Berkshire Hogs

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

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

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



Importers and Breeders of

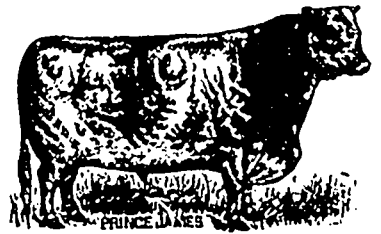
SHORTHORN CATTLE.

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 Derham Abbey, Stokeferry, Norfolk, Eng. The Mantilina, Lady Day, Roan Duchess and Princess strain. Young stock always on hand for sale. Correspondence solicited.

BACK VOLUMES OF THE JOURNAL.

WE HAVE A FEW BOUND AND UNBOUND VOLUMES OF THE JOURNAL for the years 1884 and 1885. Price per volume, unbound, \$1. bound, \$1.60, post-paid. Address **STOCK JOURNAL CO.,** Hamilton, Ont.

JOHN FOTHERGILL & SONS,
Burlington, Ont.

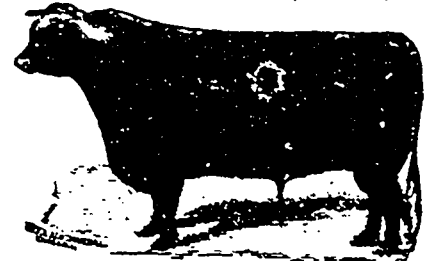


Importers and breeders of Shorthorn Cattle, Lincoln and Leicester sheep.

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.

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



Importers and Breeders of

SHORTHORN CATTLE.

Clydesdale Horses and Shropshire Down Sheep. A good selection of young bulls, from 4 to 20 months old, including the pure Booth Commander-in-Chief—the others are mostly Booth blood—are now offered for sale.

TERMS REASONABLE.

BOW PARK HERD
OF

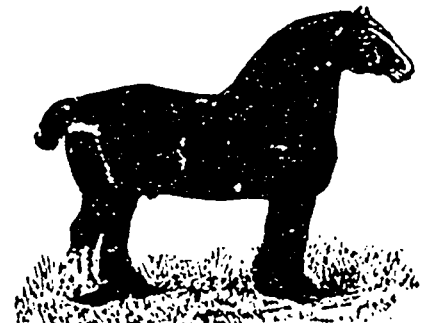


PURE-BRED SHORTHORNS

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

ADDRESS, **JOHN HOPE, Manager,**
Bow Park, Brantford, Ont.

NEW STOCK CUTS FOR SALE.



\$2.00

We have a large assortment of large and small cuts, suitable for posters, letter heads, billheads, envelopes, etc., engraved in a superior manner. Send for specimen sheet. Cash must always accompany order.

Address the **STOCK JOURNAL CO.,** HAMILTON, ONT.

HILLHURST HERDS



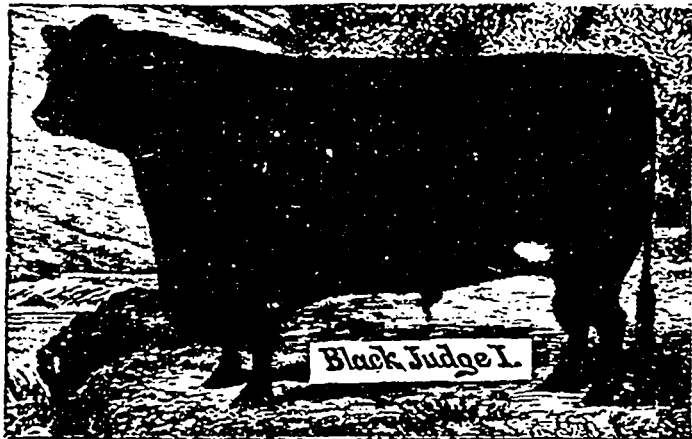
HEREFORD,
ABERDEEN-ANGUS,
SHORTHORN
—AND—
JERSEY CATTLE.



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

CANADIAN HOME OF THE ABERDEEN ANGUS-POLL

UNCONQUERABLE



BLACK JUDGE [1]
IMPORTED.

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

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

WE beg to call the attention of our patrons and friends to the above splendid set of our Champion Bull Black Judge [1], with his unapproachable record underneath. We have also much pleasure in saying that we have again taken all the leading Prizes and Honors at CANADIAN GREAT FAIR, of this year. Not once, since 1882, have we missed taking the coveted Medal and Diploma for the best herd of Aberdeen-Angus-Polls; and the Medal and Diploma for best bull of any age have gone to Kinnoul Park no less than FIVE TIMES IN SUCCESSION. For four years running we have secured the first premium for cows; twice being first, second and third; once (in 1884) against a ring of fourteen of the best animals ever shown together in Canada, comprising choice herds from Messrs. J. H. Pope, Mossom Lloyd, Geary Bros. and H. Walker & Sons. We have confidence in asking intending purchasers to inspect our stock and prices before investing. We have some choicely bred Bulls and Bull calves which we will sell at prices ranging from \$100 to \$500, ACCORDING TO BREEDING AND QUALITY, and we shall have pleasure in sending to any address our Illustrated Descriptive Catalogues.

HEREFORDS FOR SALE.



30
Imported Yearling Hereford Heifers

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



R. H. POPE, EASTVIEW, COCKSHIRE, P. Q. sep-6

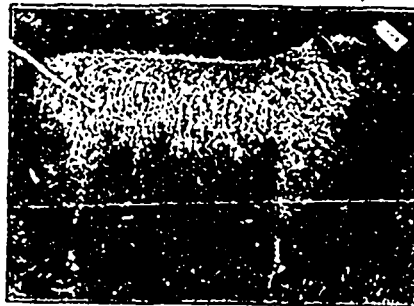
**KEILLOR LODGE STOCK FARM,
THE GEARY BROS. CO'Y, Proprietors.**



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.

FOR SALE.



25
IMPORTED

GLYDESDALE

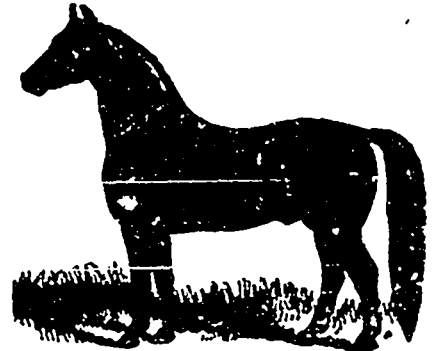
STALLIONS and MARES

3 Cleveland Bays, Shorthorn Cattle, Shropshire Sheep and Berkshire Pigs for sale at all times

at reasonable prices. Terms easy. Correspondence solicited. Our stations are Claremont, C. P. R., and Pickering, G. T. R., where visitors will be met by writing or telegraphing us at Brougham.

John Miller & Sons,
Brougham, Ont.

FOR SALE.



Two imported thoroughbred English stallions, lately imported, the property of Simon Beattie, Thornhill, Ont.

SUPERIOR-Bay, and black legs, foaled 1883; bred by the Duke of Hamilton, Norfolk, England; got by Petrarch, dam, Thoughtless, by the Hermit, grand dam, by St. Albans, etc. This horse is full 16 hands high, extra good looker and full of the most popular and best racing blood in the world.

GLYNDON-Black, foaled 1882, bred by Mr. C. Parkins, England. Got by Roticrucian, dam, Umberia, by Cameron, etc. Glyndon's sire and dam were both race horses; so was Glyndon, and is a horse of great substance, extra good legs and feet, and traces back to the old reliable blood of Goodwell, The Baron, Irish Bird Catcher, Whalebone, etc.

SIMON BEATTIE, Thornhill, Ont.

MOULTONDALE STOCK FARM.

FOR SALE



Pure-bred **SUFFOLK** and **BERKSHIRE** PIGS
6 weeks to 6 months old, at reasonable prices. Bred from imported stock. Address,

F. J. RAMSEY, Dunnville, (on G. T. Railway
Breeder Shorthorns, Berkshire and Suffolk Pigs. Imported Bates Bull Stairia Duke 5018 at head of herd.
27 Stock won 123 prizes at three fairs this fall.

**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 Jan et of Aaggie, No. 1457, H.H.B., Vol. 6. Also Aaggie Ida, No. 2600, H.H.B., Vol. 6. This family is noted for its exceptionally fine milk producers. We have also for sale six bull calves, from 4 to 8 months old, in good condition. Prices reasonable. Correspondence solicited. We would be pleased to have you call and examine our stock at any time. Address

WM. B. SOATHERD,
Secretary, Wyton, Ont.

JAMES GARDHOUSE & SONS,

MALTON, ONTARIO, CAN.

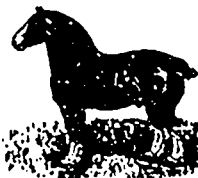


Breeders and Importers of
CLYDESDALE & SHIRE
HORSES,
Shorthorn Cattle and Berk-
shire Pigs. Young Stock for
sale. Terms reasonable.
JAMES GARDHOUSE & SONS,
MALTON STATION,
Highfield P. O., Ont.

CLYDESDALES

FOR SALE

ON REASONABLE TERMS.



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

Catalogues will be published shortly.

ROBERT BEITH & CO.,

Aug. 21, '86.

BOWMANVILLE, ONT.

THE CORBIN DISK HARROW

With Seeder Attachment.



THE BEST IN THE WORLD

It has no equal for lightness of draught, general utility, durability and convenience.

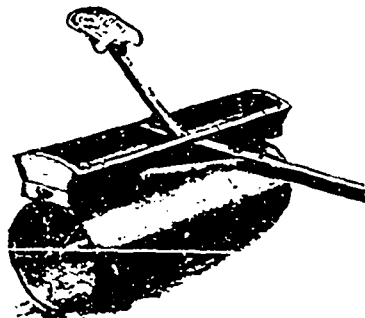
Our agents everywhere are authorized to put it into the field against every form of disk or tooth harrow in the market. It will speak for itself. Send for a pamphlet with a strong testimonial from Mr. Thos. Shaw, of the JOURNAL.

THE "NEW MODEL" WHIPPED.

Since the above was put in type, we have received the following from our agent at Oshawa, Ont.

April 25th, 1887
Messrs. ST. LAWRENCE & CO., Prescott, Ont.
Sir, The Morrisburg agent came to my nearest neighbor and sold him his (New Model) Harrow on trial. He tried it and did not keep it. I then got him to try your Corbin and left it with him to finish an 8-acre field, and they liked it much better and bought it to be paid for this fall. It was a bad beat for the Morrisburg—they would not have kept it at any price. I expect to sell the Roller every day.
J. W. SMITH

The Corbin Wrought Iron Roller



Finished bearings, Lubricated oil boxes and weight box, every Roller will take a Grass Seeder.

Our sales in Canada this year are nearly double those of 1886, and nearly all together in sections where introduced last year. It is comparatively cheap, silent running, durable, and warranted amply strong.

The St. Lawrence Mfg. Co., of Ont., (Ld.) Prescott, Ont.

Mention this paper.

11 Importations within the last 12 Months



We have now on hand the grandest collection of

CLYDESDALE
—AND—
ENGLISH SHIRE
HORSES

in America, and are the only firm that ever imported a CHAMPION WINNER AT THE GREAT LONDON DRAFT HORSE SHOW.

Prices moderate, and terms to suit buyers. Send for new illustrated catalogue to
GALBRAITH BROS., Janesville, Wis.

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,

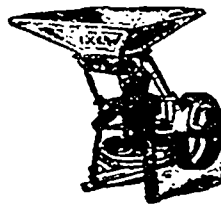
along with a few Canadian bred. Visitors welcome.

ONTARIO PUMP COM'Y

TORONTO, ONTARIO.



GEARED WIND MILLS
For Driving Machinery,
Pumping Water, etc.
From 1 to 40 horse power.



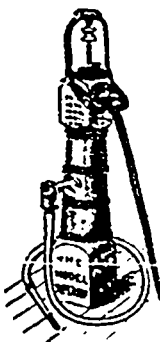
1 X 1 FEED MILL
The Cheapest, Most Durable and Perfect Iron Feed Mill ever Invented.



27 Sires PUMPING WIND MILLS
from 8 to 30 ft. diameter.



TANKS—Round or Square
Capacity from 12 to 2,855 barrels.



PUMPS,

Both Iron and Wood, Force and Lift. We will guarantee our Deep Well Pump to beat any other pump in the market.



We manufacture the most complete line of **HAYING TOOLS**, such as **HAY CARRIERS, HORSE HAY FORKS, PULLEYS, FLOOR HOOKS ETC.,** in Canada.

Westand ready to Guarantee our Standard Haying Tools the best in the market.

GRAHAM BROS.,

CLAREMONT, ONT.

RESIDENCE ONE MILE FROM CLAREMONT STATION.
Importers of Registered

Clydesdale

STALLIONS AND MARES.

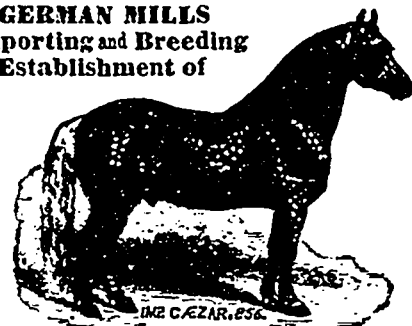
We have constantly on hand and

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.

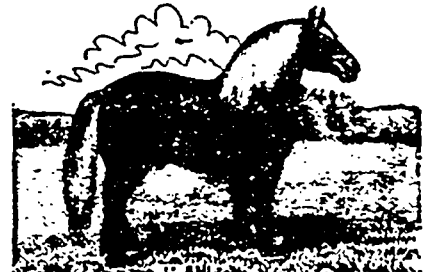
GERMAN MILLS
Importing and Breeding Establishment of



1. PERCHERON HORSES AND SHORTHORN CATTLE.

A CHOICE LOT OF IMPORTED STALLIONS ON 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. Personal inspection invited. Railway station at German Mills, on Galt Branch Grand Trunk Railway.
T. & A. B. SNIDER,
German Mills P. O., Waterloo County, Ontario.

RIVERSIDE STOCK FARM
DEGEN BROS., Ottawa, Ill.



Importers and Breeders of French Draft and French Coach Horses. We have now over 75 head of imported French Draft Stallions and Mares on hand. Our importations this year have been selected from the best breeding district in France. Our stock is all recorded in France and in the National Register of French Draft Horses in America. Our French Coach Horses are the best that could be found in France. We will be pleased to show our Stock to visitors. Correspondence invited and promptly answered.
DEGEN BROS.

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

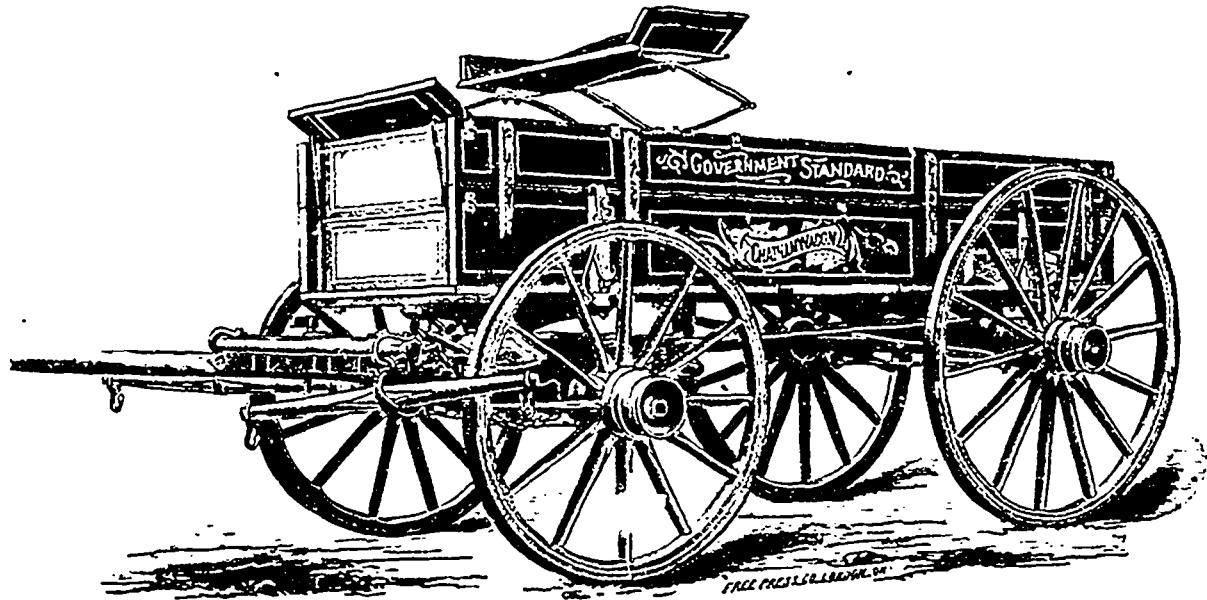
Prices to suit the times.

Address, **JEFFREY BROS., Whitby, Ont.**

THE CHATHAM MANUFACTURING CO. (L't'd)

MANUFACTURERS OF

HARD WOOD LUMBER



SHIP PLANK.

THE CHATHAM WAGON

Of which wagon the above is a faithful cut, and which the Government of the Dominion of Canada has adopted as the

STANDARD WAGON

We simply ask intending purchasers, in their own interests, to send to us for particulars of the Chatham Wagon, or if there is one convenient closely examine it before purchasing any other. We also make **Railway Platform Baggage Trucks, Farm and other Dump Carts, the Celebrated Maine Bob Sleigh, the Patent Champion Hay Rack, etc.**

CORRESPONDENCE SOLICITED.

CHATHAM MANUFACTURING CO. (LIMITED.)

CHATHAM, ONT., 7TH APRIL, 1887.

Tiles for Underdraining.

HAVING greatly enlarged our business, we now have capacity for turning out 40,000 tiles daily, and also having reduced our prices to meet the demand of the times, and having secured special rates from the G. T. R. K., we are now prepared to ship at only a trifle more than cost of tiles to any part of the Dominion. Our tiles are admitted by those having had most experience to be

—SUPERIOR TO ANY—

they have handled. We have been over twenty years in the business, and constantly improving the tiles, which are round in shape and perfectly straight and smooth inside. Sizes from 2 to 6 inches constantly on hand; larger sizes must be specially ordered. Orders filled on short notice, and shipped either from Waterloo or Drayton. Do not fail to send for price lists. Address,

E. C. HAACK, Conestogo, Ont.

Beaverton Brick and Tile Co'y
BEAVERTON, ONT.

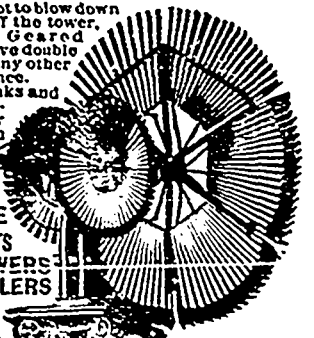
DRAIN TILES A SPECIALTY.

R. R. siding into yard. Tiles can be shipped to any place in Dominion. Correspondence invited.

CHALLENGE WINDMILLS

Warranted not to blow down off the tower, and that our Geared Windmills have double the power of any other mill in existence. Mfrs. of Tanks and Windmill supplies of every description

and the Col-
brated
CHALLENGE
Feed Grinders
HORSE POWERS
CORN SHELLERS
PUMPS and
BRASS
CYLINDERS.



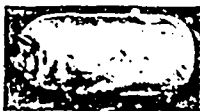
Send for Catalogue and Prices. Always buy the Best GEARED OR PUMPHO MILL ON 30 DAYS TEST TRIAL. GOOD AGENTS WANTED.

St. Catharines Pump and Windmill Works,
ST. CATHARINES, ONT.

A. FRANK & SONS

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

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



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

STOCK AND COMMERCIAL PRINTING

HORSE BILLS, 20x27, 50 for \$2.75; 100, \$3.50

Sale Catalogues, Pedigrees, Letterheads, Business Cards, Envelopes, etc., etc., executed with neatness, dispatch and at reasonable prices. Estimates furnished. Address

STOCK JOURNAL CO., HAMILTON, ONT.

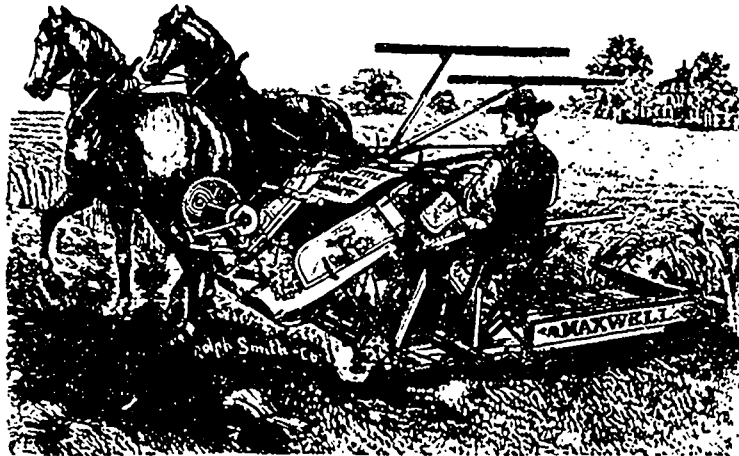
THE LITTLE MAXWELL BINDER

The Simplest

—THE—

STRONGEST

THE EASIEST
TO OPERATE.



The Neatest

—THE—

LIGHTEST

THE ONLY RIGHT
HAND CUT.

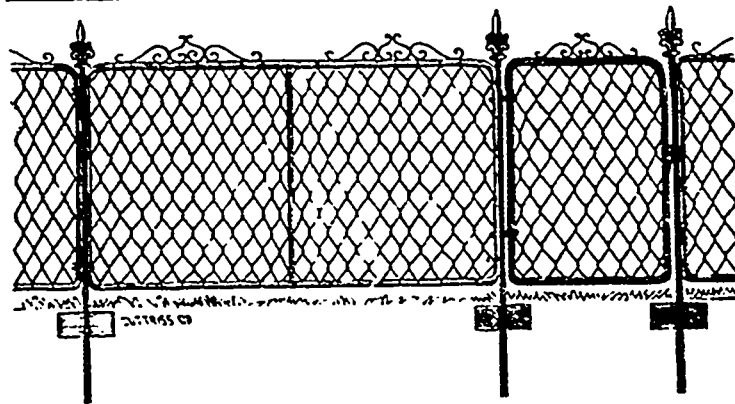
—== DON'T FAIL ==—

TO SEE THE NEW 1887 LITTLE MAXWELL

THE LATEST AND SIMPLEST KNOTTER. THE STIFFEST AND STRONGEST STEEL BAR.
NEW AND SIMPLE REEL. THE MOST PERFECT MACHINE IN THE MARKET.

Send for 1887 Catalogue.

DAVID MAXWELL, PARIS, ONT.



JONES' Patent Fencing

This fencing is especially adapted to lawns, flower gardens, door yards, etc. It is made of wrought iron and steel wire work, 3 inch mesh, is very much admired. My fencing has won the highest awards wherever exhibited. It is very strong and durable, can be made any height desirable to suit the convenience or taste of purchasers.

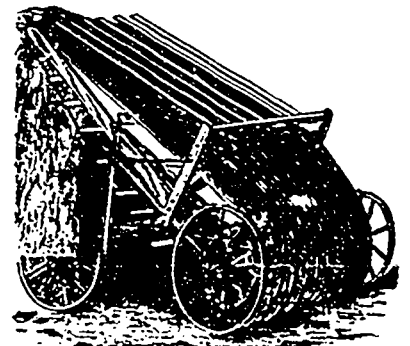
Net fencing for farm purposes from 55c per rod upwards.

E. C. JONES,
47 King William St.,
Hamilton, Ont.

M. WILSON & CO.,
HAMILTON, ONT.,
Manufacturers of all kinds of

HAY TOOLS

Foust's Patent Hay Loader. Anderson's Patent Rake Attachment. Grand Rapids Hay Tedder. Wisconsin Dead-Lock Hay Carriers and Forks.



The above cut shows the FOUST HAY LOADER, with ANDERSON'S PATENT RAKE ATTACHMENT.

IT WILL TAKE UP GRAIN WITH SHORT STRAW.

It will take up grain as clean out of the furrow as on the ridge, without the necessity of using the horse rake. In hay it can be used after the Tedder, and will take it from the swath without using a horse-rake.

For Sale at this Office.
Large cuts of Stallions suitable for posters. Small cuts of Horses, Cattle, Sheep, and Swine.
Send for Specimen Sheet. Address,
THE STOCK JOURNAL CO.,
HAMILTON, ONT.

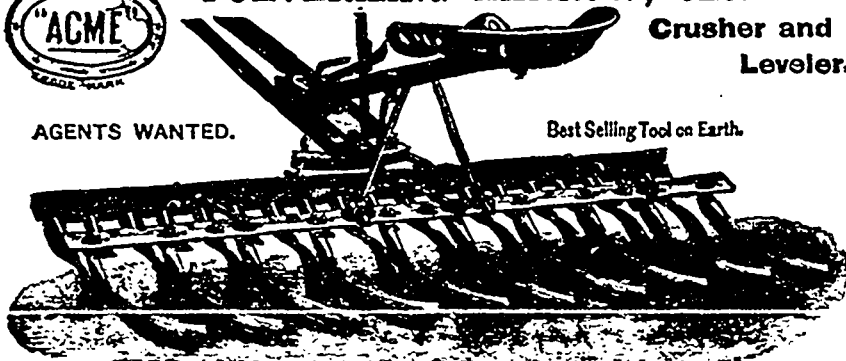
PULVERIZING HARROW, CLOD



Crusher and Leveler.

AGENTS WANTED.

Best Selling Tool on Earth.



Subjects the soil to the action of a Steel Crusher and Leveler, and to the Crushing, Cutting, Lifting, Turning Process of Double Cams of Cast Steel Coulters. Cutting power is immense. Absence of Spikes or Spring Teeth avoids pulling up rubbish. Only Harrow that cuts over the entire surface of the ground.

Sizes 3 to 15 ft. wide. With and without Sulky attachment. We deliver free at Distributing Depots. Send for pamphlet containing thousands of testimonials from 48 States and Territories.

DUANE H. NASH, Manufacturer and Principal Office,
MILLINGTON, MORRIS CO., NEW JERSEY.
N. E.—"TILLAGE IS MANURE" and other essays sent free to parties who NAME THIS PAPER.