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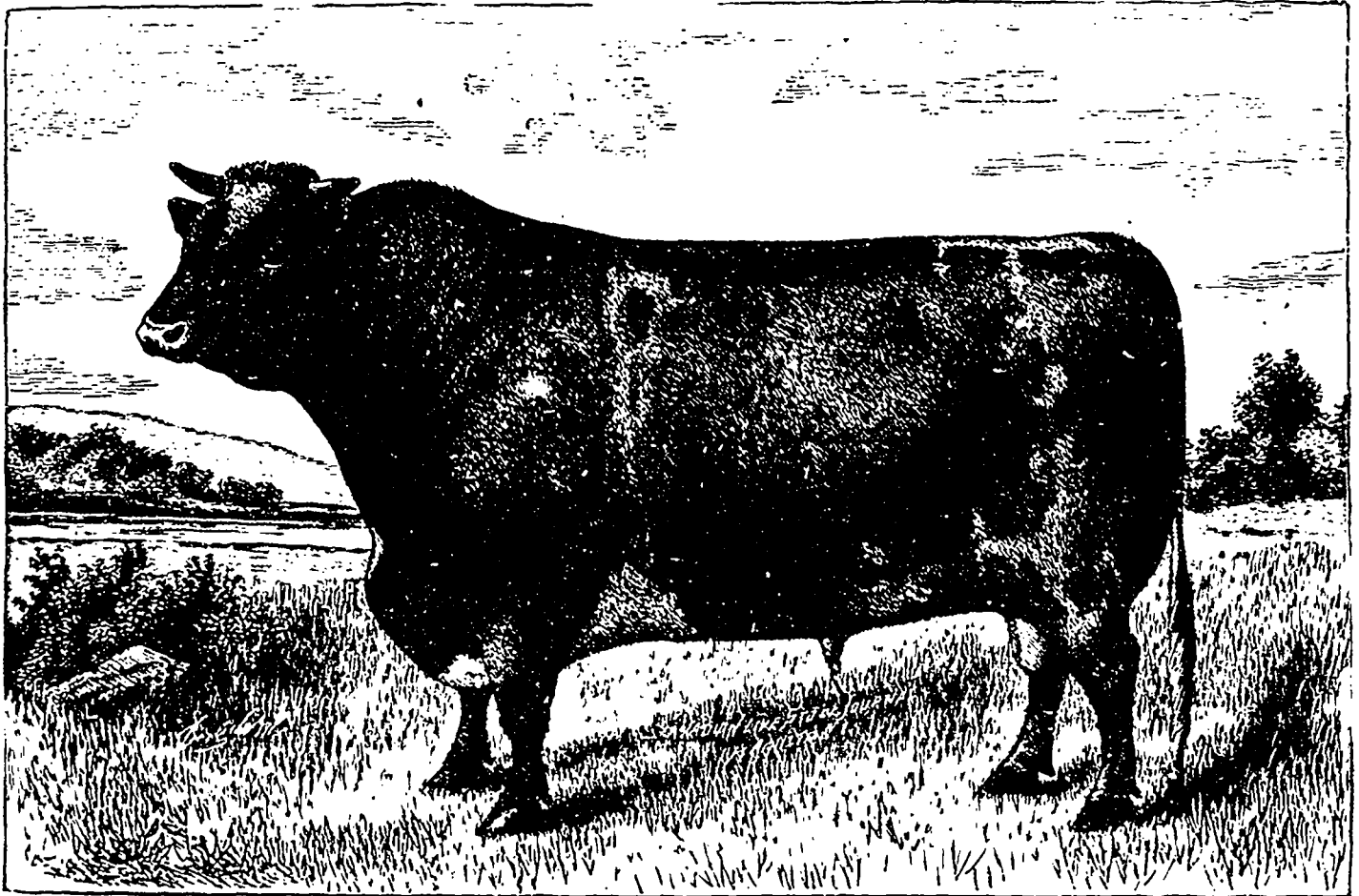
THE CANADIAN LIVE-STOCK AND FARM JOURNAL

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

VOL. IV.

HAMILTON, CANADA, APRIL, 1887.

No. 42



THE SHORTHORN BULL BARON CONSTANCE 5TH -2189-

The property of Mr. Jas. S. Smith, "Maple Lodge Stock Farm," Maple Lodge P. O., Ont.

Baron Constance 5th, -2189-

Baron Constance 5th, -2189-, the subject of the above sketch, has been the stock bull in the herd of Shorthorns at Maple Lodge Stock Farm, the property of James S. Smith, Maple Lodge P. O., county Middlesex, Ont. since January, 1883, when he was purchased from his breeder, Mr. John Gibson, then of Denfield, Ont.

He is a rich dark roan in color, and was calved December 5th, 1881. His sire was Baron Constance 2d, 37564, a full brother to 6th Constance of the Manor, purchased at Mr. Gibson's dispersion sale of last year, for J. J. Hill, White Bear, Minn., where Mr. G. is now manager. His g. s. 7th Lord Oxford, 17586, was bred at New York Mills, and got by the \$12,000 2d Duke of Oneida (33702). B. C. 2d had for dam Constance of Lyndale 5th, by 2d Duke of Hillhurst, 12983, by the \$10,000 6th Duke of Geneva (30959). 2d Duke of Hillhurst was from Duchess 97th, the g. d. of the \$23,000 bull Duke of Connaught, by many said to be the greatest sire in Great Britain.

The dam of Baron Constance 5th was 2d Constance of the Manor (since purchased for the Maple Lodge herd) by 2d Duke of Rutland 22904, by 22d Duke of Airdrie 16695, sold by the Messrs. Gibson at London, 1877, for \$4,900, to Col. Cameron, of Vermont, and from the dam of Ursaline 3d, sold by Mr. R. Gibson at the same sale for \$1,500. His g. dam

was that grand old cow Cherry Constance, sold at the New York Mills sale to Col. King for \$1,100, and got by 4th Duke of Geneva (30958), sold to the late Abr. Renick, Kentucky, for \$6,000, to use on his famous Rose of Sharon cows. His g. g. dam was Constance 5th, by 7th Duke of Airdrie (23718), bred by Mr. Alexander at Woodburn, Kentucky, and used extensively by Mr. J. O. Sheldon, on the Duchess and Oxford families at New York Mills, siring many valuable and high priced animals, among them being 5th Maid of Oxford, exported to England, where she sold for \$4,500.

The g. g. g. dam was Constance 2d, by the celebrated old bull Duke of Airdrie (12730), imported and owned by Mr. Alexander, of Woodburn, Ky., and considered in his day the most celebrated sire in America. G. g. g. dam imported Constance, by Bridegroom, etc.

Baron Constance 5th is a grand specimen of the Constance family, possessing the salient features of these excellent Shorthorns. He stands perfectly on short legs, with a long, deep body, full and gracefully turned front, lots of room for heart and lungs; a pleasing, lively, masculine head and horns, very level lines above and below, well-sprung ribs, broad, deep quarters, and a back that cannot be beaten from crest to tail; and all is covered smoothly by a wealth of firm yet mellow flesh, possessing a "touch"

that denotes the easy, rapid feeder. He is also large and has a hardy, vigorous constitution. His best feature, however, is the remarkable power he has of transmitting his good qualities. He seems to nick exactly with the females of the herd, and the result is a grand lot of heifers after his own pattern, mostly retained by Mr. Smith. There are a few young bulls, sons and grandsons of his, at Maple Lodge, held for sale at very reasonable prices.

Breeding Cavalry Horses.

It must be very encouraging to the breeders of horses to learn that the British Government will require an annual contingent from Canada for some time, for cavalry purposes, of a type so often referred to in recent issues of the JOURNAL. Mr. A. C. Bell, ex-M.P.P., New Glasgow, N.S., reminds us that in that Province light horses sell for about £17. Why may not the breeders in future produce those of the right type, and secure instead about twice that sum? Mr. S. Beattie, of Thornhill, Ont., in a note just come to hand says, "Farmers and others should breed their light class of mares to thoroughbreds, to get horses for saddle purposes, for which there is so much demand, and sell them at high prices. There is no denying the fact, that only through the direct cross of the thoroughbred blood horse can we get saddle as well as stylish road horses, and the more thoroughbred blood in them the better they are." The season is upon us when we should look out suitable sires for the production of the class of horses to which we have referred. We must be up and doing, or the market will slip away from us.

Canadian Live-Stock & Farm Journal

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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.

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To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines makes one inch); for three months, 15 cents per line each insertion; for six months, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines \$1.50 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, APRIL, 1887.

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.

WE heard it remarked of one of the shrewdest and most successful Shorthorn breeders of Scotland, that he rises early, takes a look over the place before breakfast, and is constantly giving his attention and oversight even to the details of the large establishment which he manages. This habit has, without doubt, contributed very largely to his success as a breeder of stock that in not a few instances has stood at the head of Ontario's largest show-rings. Thus it must be with all who are eminently successful. They can afford to allow nothing to be done in a slipshod way. Everything must receive its meed of supervision, and then everything will move on. It is not of much consequence that a man make a large profit on a few beasts, if at the same time a large number of them is kept at a loss from lack of close attention. It is when there is some profit at every turn and in every detail, let it be ever so little, that great results are summed up in the aggregate. Stop the leaks and keep pumping and the vessels must soon fill.

MUCH attention is being given of late to the warming of the liquids given to both calves and pigs. It should never be given to either in winter, or indeed any time at a temperature colder than blood heat. If fed at a colder temperature it is at the expense of feed, and cordwood and coal are cheaper factors in heat production than grain or bran. When the buildings are warm it is of less consequence, but in any case it should not be neglected. It is almost impossible to keep young pigs from becoming "humped" when the liquid they get is given cold, and calves will tremble after every draught in a way that should incite the pity of the feeder. It is attention to every little detail in business that makes it a success, and in feeding stock the same rule will hold good. It is just this extra attention or the lack of it that determines

whether stock-keeping shall be profitable or the reverse of this. Let those who have not given attention to this matter in the past do so in the future, and they will be astonished at the difference in results.

THE size of the manure heap made on the farm and the wise application of this determines largely the amount (1) of the crop that shall be grown, (2) the number and character of the stock to be kept, and (3) the extent of the profit that shall be realized. It is surely then of the first importance to watch over the manure heap with a jealous care, and so to protect it and conserve it and enlarge it, that there will be a constant supply of plant food in its most valuable form to apply on the land. Without sowing, we never expect to reap; without feeding natural life, we never expect to sustain it. Why then should we expect to reap crops where we have not given the substance to produce them after this has been exhausted by previous cropping? This sort of reminder may be looked upon as the echo of an old song. If so, what has necessitated the repetition of the echo? What but the defective practice of our farmers which they refuse to remedy, to so large an extent. The prevalence of the practice would be positively disheartening, were it not that there are many cheering indications of a change for the better.

ALL progress in agriculture is the result of experiment in one form or another. All the advance that has been made has been brought about in this way, and has been the outcome of individual effort, the results of which, though made in an isolated way, have been focussed and embodied in the practice of the community. This is a very slow way of arriving at conclusions in agriculture, although it is a very safe one. Its slowness is very apparent when we compare the little that has been established in agriculture with the much that has not been established. The above method of arriving at conclusions may have sufficed for the world in the past, but it will not satisfy the impatience of the present age. Henceforth more must be determined by our experimental stations, which will be ratified by the concurrence of general experience before being accepted as final. We rejoice, therefore, that experimental stations have been established in so many of the provinces, and we trust the utmost care will be exercised in their supervision. A thousand things might be suggested for experiment, but we will mention but one here, and we hope all the experiment stations will take it up next winter—that is, to tell our farmers how much less feed it takes to keep a properly protected cow through the six months of winter to produce given results, than one not protected.

IT is a great matter to have a good start, whether in the commencement of a journey or of any line of business. A damper placed on one's ardor at the beginning is more weakening than a night sweat. It is important, then, that young men in farming should be started right. Failure at first is very discouraging and may lead to a giving up of the work altogether. There is wide difference of opinion as to what constitutes a good start. Some fancy it consists in the father handing over to the son a good farm well stocked. Nothing of the kind. It consists in giving to the young man a sound education. By that we mean a careful education in morals, in the principles of his business, and in the habits and methods of labor relating thereto. These are of infinitely more importance than the farm. The farm may soon be frittered away by want of management, but the qualifications we have referred to, no man can take away— if imparted at the right age. A young man commencing

to farm to-day, who is thus equipped, is "like a person starting on the shoulders of his father, with the addition of the experience of his neighbors, and indeed of the whole country," as has been aptly stated by one of our foremost dairymen.

The Dominion Shorthorn Herd Book Standard Sustained.

THE 24th February saw the largest gathering of Shorthorn breeders convened in the St. Lawrence Hall, Toronto, that ever met in one place in the Dominion. There could not have been less than two hundred convened, and yet perhaps not more than one-half of the whole number of breeders of Shorthorns was present, which gives us a flattering impression of the strength of this interest in the Dominion.

The large attendance gave evidence of the conviction in the minds of breeders that the future prosperity of the Shorthorn interest or the opposite of this, depended very largely on the decision that would be arrived at in reference to the standard, and the verdict they have given with so much of unanimity may now be regarded as final.

The discussion was conducted with moderation throughout, yet there was the utmost freedom given to the expression of opinion, so that no one can now say that he was not allowed ample opportunity to shew wherein he felt aggrieved, and to state the proposed remedy.

When the vote was called for, the standard of the Dominion Shorthorn herd book was sustained by a *sedemfold* majority—seventy-four voting yea and ten nay. If the vote had been taken half an hour earlier we believe the numbers would have stood ten to one instead of seven to one, as a large draft left the meeting to catch a departing train, under the conviction, based upon what they had already witnessed, that the standard would not be changed.

We have already stated that we favored the agitation of the past in reference to this matter. A considerable number felt aggrieved, and it was only fair that they should have ample opportunity to state their grievances, and to use every legitimate means to obtain redress. The matter has been discussed from various standpoints and with the one result, that no one has shown where the line could be drawn so as to better meet the views of a majority of the breeders.

We are glad, indeed, that the matter has been so conclusively settled, and we trust for all time. The disturbed state of the Shorthorn camp during recent years has given much strength to the cause of scrub stock; or, to put it differently, it has not been that aggressive influence that it might have been in weakening this cause had the breeders been united in their views. A distrust has been created that it will take years of united action to efface; and a large number even of those who would have been an honor to the ranks have gone back into the camp of those who are content with a place in that company whose highest aim is to keep improved but unregistered stock. Our neighbors, too, across the line, have on many an occasion played shy of cattle registered in herd books which different sections of Shorthorn breeders in Canada were trying at once to build up and to pull down. How could it be otherwise than that the interest should become so rheumatic that it could only walk when supported on crutches, and go hobbling along at a limping gait when it should have been manly in its mien and tread?

But all this must change. At the annual meeting to which we refer, the last battle in this fratricidal war, the most disastrous form of war to either state or material interest, was fought, and over the grave of

unhallowed divisions the Shorthorn breeders signed what we shall fondly hope is a truce that shall always remain unbroken. The seasons shall come and go in their usual way, and each succeeding spring will bring its wonderful resurrection of life and growth, but we do earnestly trust that no spring-time of the future shall ever call into new life the regretful differences that have so rent the Canadian Shorthorn world.

The parties who were so largely in the minority on the 24th February accepted the situation like men; there was no murmur of discontent from any one of them, and they bore a decision which meant in the meantime severe loss to them, with the fortitude of the stoics of olden time. We were going to proffer our sympathies to them again, when we are reminded that we are in the same condemnation. We have eight head of the condemned cattle (soon to be ten) in our own stables, so taking our stand along with them, we exhort them to submit to the inevitable for the general good, and to make it our ambition in all future time to breed cattle that will beat those of the herds that remain unscathed. In a matter like this where some must suffer wherever the line may be drawn, true charity reminds us that it should be our own rather than others. Nay, reader, do not smile, you may laugh at the sentiment expressed above, but you cannot overthrow the philosophy which gave it birth.

We see nothing now that should hinder the rapid recovery of the Shorthorn tree. Its roots may strike deeply in the prairies of the Northwest and the reclaimed sea-meadows of Nova Scotia, and beneath the shadow of its extending branches the breeders of all the provinces may find repose. It will surely be the pride of Shorthorn breeders in coming time to promote the vigor of this tree by the careful production of a type of cattle that will do honor to the business, now that the Shorthorn ship has cast anchor in a haven where the troubled billows of storms are not likely to come. If, with a divided register, we wrenched the respect of the outer world, so far as to induce it to seek prize-winners in our midst, how much more shall we not command it now when we are making common cause?

Working vs. Thinking.

Prof. Roberts, of Cornell University, Ithica, New York, when addressing the eastern dairymen of Ontario, while in convention at Belleville, January, 1886, made the following quaint remark: "I had been working busily for some time when the thought occurred to me that I should sit upon the fence and work awhile." Beneath this expression of sly humor so characteristic of the man, there is a strata of valuable wisdom. The idea of sitting on the fence and working sounds very odd, almost startling at first, but there is a great deal in it.

In no calling, perhaps, is the tendency so strong to work with the body only as in farming. The reason is, perhaps, that it is easier to work with the body than the mind, notwithstanding the popular opinion to the contrary. This very largely accounts for the fact that farm servants are very much less useful, as a class, than they would otherwise be; they work almost always with the body, while the mind is at rest, because it is easy to do so.

The number of farmers is, no doubt, quite too large already who sit upon the fence in the busy season, but not with the object the professor had in view. They sit there and do nothing. Although a busy time is not just the best time for work of this kind, it is better to do it than not at all.

The winter season is the best time to plan the outlines of the summer's work, but there are numberless details which cannot be so well thought out so far ahead. They arise oftentimes from the exigencies of each day's work, and must be provided for just at the time.

It is singular the number of lessons contained in the great volume of the book of nature if we could but read them. Throughout every page of this peerless book we find the most beautiful analogies, and this is one. The temperate regions produce the finest specimens of the human race. So those temperate both in work physical and mental make as a whole the most progressive class of farmers. The one who works only with his brains often dwindles into a tawdry theorist, and he who works only with his body becomes a fossilized machine; while the man who temperately yet persistently uses both in equilibrium grows up into a healthy, vigorous, progressive farmer—a noble in his calling.

The capacity to work with muscle leverage on the farm is a valuable acquisition, but less so than the power to work to good advantage with the mind. The disposition to work with the body is of great moment, but less so than the disposition to work with the mind. But happy is he in whom we find the capacity and disposition for both kinds of labor liberally bestowed by nature, and diligently cultivated.

The person who is managing a farm with others under him is recreant to his duty if he does not work vigorously with his mind. Indeed, this is the great matter in such a case. So situated, he has to do the larger share of the thinking for every man under his charge, hence if his time is largely taken up with oppressive bodily labor, which will in a measure unfit him for the work he has in hand, he cannot prove a complete success as a director of labor.

To say that a director of farm labor should not labor himself at all would be taking high ground. The amount of physical labor that he will be justified in doing will be in proportion to the extent of the labor he is directing, and in an inverse ratio—that is, the greater the extent of his charge the less time should be spent by him in doing hand work.

There may be seasons when, with a heavy charge on hand, it may be wise for a director of farm labor to throw his energies into the work, and lead the van on the principle that an officer in the day of battle may sometimes gain by throwing himself into the thickest of the fray; but usually he deems it his duty simply to direct the movements of his men.

The farmer who labors only or even mainly with his hands, does himself a wrong, as he strengthens muscle at the sacrifice of brain power. He does his family a wrong, as he is setting them an example that should not be imitated, and very probably by his exacting the same thing of them is giving them a distaste to his calling; and he is doing his country a wrong, as he cannot but be, under the circumstances, less progressive than he would otherwise be.

We do not deny that some men, who have not exercised the mind very much, have grown rich by farming, but it will be found that this has arisen from favorable attendant circumstances of location, and otherwise. They have settled down quietly upon some rich virgin lands, and drawn from the almost spontaneous production of these the elements of wealth, which, having been well cared for, along with the advancement in value of their real estate, has placed them in a position of comparative affluence. But this will be less and less the case in coming time, now that the race must be commenced in circumstances very different. The older a country becomes the more diffi-

cult is it for a person to elbow his way to the front, and elbowing of this nature is more and more being allocated to the mind, as is quite evident from the results of the experience of older countries. One hundred men starting evenly in a new country, at the bottom of the hill, may nearly all become independent, but such is not the case with them in older lands where the grade is steeper; but a small number of them will reach the front, and these will be that portion of them which have used their minds as well as their bodies.

A farmer who works only with his muscle is not usually a reader. Indeed, under the circumstances he cannot be, weariness of muscle reacts upon mind, so that the disposition to read is taken away, and his field for picking up useful truths becomes narrowed down to the little boundary line of his own experience and that of his neighbors.

It should not be forgotten, at the same time, that laboring only with the mind has a tendency to create a distaste for physical labor, and the expansion of the mind may easily take place by shrivelling of the muscles, and their premature decay. This should not be permitted, as a certain amount of good muscle is as essential to successful brainwork, as a certain amount of brain work is essential to more successful results obtained from muscle labor. Indeed, it is when these are happily blended that work is most effectively done, as in the proper blending of the colors the beauty of the painting largely consists. It is the undue proportion of the one that has brought farming so very largely into disrepute as a suitable calling for young men of superior capabilities. It is this that has placed it away down below zero in the thermometer of public opinion, and when it rises in the graduating scale of public opinion, as rise it must, it will be because those following agriculture make a better use of their minds.

Farmers who make the equilibrium of the use of all their powers a study, will be well repaid for doing so. In addition to other blessings, it will add to their comfort, to the depth of their pockets, and to the length of their days.

Amongst Our Friends.

"Your JOURNAL is, without exception, the best agricultural paper that I know of."—Thomas Fraser, Brucefield, Ont.

"I consider your journal an educator of the farmer."—John Scott, Shiloh, Ont.

"I have found much pleasure in perusing each number of the JOURNAL and hope to do so for many years to come."—N.W.C. Baugh, Kinbrae P.O., Assa., N.W.T.

"I feel it the duty of every one who has had the privilege of reading the JOURNAL to work for it, and I feel assured that I am not saying too much when I state it is the best JOURNAL published in the Dominion."—Jas. Burns, Greenbank, Ont.

"While other papers go to the waste basket with me, I have every number of the JOURNAL from the first issue carefully saved for future reference."—F. R. Hamilton, Cromarty, Ont.

"Your JOURNAL is excellent for any stockman. I could not be without it."—G. Solomon Boliver, Hebb's Cross, N. S.

"I like the JOURNAL very much and would recommend every farmer to try it one year. I am sure they would never regret the dollar."—A. J. C. Shaw, Thamesville, Ont.

"Your paper should be encouraged by all lovers of good stock. The young men of the farm by its perusal cannot but be induced to care better for the stock of the farm."—John A. Rogers, Attercliffe, Ont.

"I have derived much useful knowledge from your JOURNAL, though only a new subscriber, and heartily wish it every success for years to come."—Arthur De Cerjat, Springville, Ont.

"I am highly pleased with the JOURNAL, and I think it improved every number I receive."—Robt. Benwick, Lakelhurst, Ont.

Pedigree.

There were many causes at work which led to the wholesale overthrow of the malcontents, when at the meeting of the Dominion Shorthorn Association it was resolved to keep the standard at the elevated notch, adopted when the fusion of the older herds took place. It was felt that yet another change would at least fasten on Shorthorn men the cynic's remark, *varium et mutabile semper Femina*—"a shifting and changeable thing always is woman"—and however anxious to conciliate and averse to persecution, the men convened at the St. Lawrence Hall were in their innermost souls simply ashamed to change again. All who had not suffered in their own stables felt thus, and many who had so suffered scorning to whine, advocated by their silence—one, Mr. Graham, by his eloquence—the policy of the Medes and Persians. It was well that special grievances should be aired, and be done with; and it is noticeable that very little was said on the side of those who opposed alteration. Feeling that there must be an overwhelming preponderance against the admission of any particular animal or animals, in breach of universal rule, the majority could afford to rest on their oars without rubbing it in, and what little acrimony there was displayed, therefore fell harmless, as it amounted only to kicking the air. In the hearts perhaps of many present, who remembered the broad backs and shapely loins, the long quarters, deep shoulders, and intelligent heads of the animals at home thus doomed to class only as grades in the future, while many a beast of no pretensions to beauty or excellence of any kind was to lord it over a first-prize rival by virtue of the book, there was no doubt an unspoken tendency to sneer at pedigree. Says the Druid, "A beast may be a good beast, however he is got; but it is to pedigree alone that we can look for succession." Though many of the rejected animals are doubtless as thoroughbred as the 4th Duke of Clarence or the Earl of Marr, and every bit as likely to transmit their individual excellence, the proof of pedigree is absent. To rule these animals in, and less presentable animals out, would be at once adopting an optional scale of preference which was impossible. They had, therefore, to be sacrificed on the altar of club law, which knows no distinction and favoritism. We may be sure that there was not a member of the revising committee who would not feel anxious to make wrong right if he could—and to them and to the officers of the association we would say, having applied the axe to the root of the tree, beware that you do not let branches escape. It is to carelessness on the part of the executive officers that those mistakes in the British American book are due which prevented that book being continued, and so in necessitating a new book, gave rise to a contemporaneous change of standard, and caused all the trouble. To those who understand the labor of going over a pedigree, tracing each bull to a legitimate foundation, it must be obvious that the revising committee can only adjudicate on such pedigrees as are found doubtful or defective by their paid officers. Verifying admitted pedigrees is altogether out of their power. Each animal has two parents, four grand-parents, and the rise through eight, sixteen, thirty-two, and sixty-four to one hundred and twenty-eight is a matter to be thought of only with profound respect for those amateurs whose leisure or patience suffice for the job, and in the case of paid officials with an equally profound hope that they do not slur over their duties. The rules must be of universal application. No doubtful animal must be passed without the owner being called upon to make the detected *hiatus* good. No fear of results

must stay the axeman's hand. There must be no "forced balances," no erring on the side of leniency. The strict letter of the law, and nothing else must be practised: and present sufferers have a right to insist that nothing shall be taken for granted. On Mr. Denison and Mr. Wade there rests a great responsibility, and they must remember that their goings out and comings-in are henceforth the subject of a jealous watchfulness; sure to detect error, and to bring it home to them in no forbearing spirit.

Over and above some natural impatience at the insistence upon pedigree (which resembles the swallowing of a black draught, remedial if disgusting), there is, we fear, in some quarters, where more intelligence would be expected, undisguised contempt for it. But at the risk of incurring the charge of sentimentality we would say, must there not always attach to a high-bred animal some of the halo of its ancestors' celebrity? What more natural than to overlook slight individual defects in the unavoidable respect one has for a lean heifer who can boast perhaps of a faultless \$20,000 grandsire? Blue blood does not mean in cows as in the human family, that the individual is descended from a long line of ancestors bred and crossed at their own sweet will, regardless always of mental, and not infrequently of physical, defects. The ancestors have each reached the position of a landmark in the herd-book by sheer excellence of make and shape, and as like begets like or the likeness of an ancestor, the lean heifer may throw a calf unlike herself. There is always the hope of it; there is often the realization of the hope. But of course the strong-minded breeder will insist on both, on individual excellence and on that pedigree which best promises the continuance of it. We would never advise a young man starting in life to buy a heifer in spite of its faults because it had the Duke of Clarence or the Duke of Connaught for grandsire. We would rather counsel the purchase of a better heifer with a less illustrious pedigree table. For those breeders who retain inferior heifers, because they know the excellence of their forefathers, we make every allowance. Those beginners who even buy on this principle have our sympathy as many others have it who in giving play to the imagination point the moral that man was not intended to live by bread alone. There was to be some little luxury mixed with his daily ration of the necessities of life. Q.

Breeding and Feeding Draught Horses.

Below we give the practice adopted by the Messrs. J. & A. Bell, Athelstane P. O., Huntingdon, P. Q., in the feeding and management of draught horses. These gentlemen have been very successful in the breeding of good horses, and success is usually the result of judicious practice.

They breed their mares at three, as a rule. The colts come in the spring usually. They do all the work with breeding mares, but do not like working mares very hard when suckling colt. Before foaling they work them carefully, and up till the time of foaling. One result is that but few colts are lost. They do not favor having them served very early in the season, as there will be difficulty in getting them with foal. In winter they let them out of their loose box-stalls twice a day, leaving them out an hour at a time, when the weather is fine. The foals suck the dam for about five or six months. The mares that do not work while suckling foals only get grass. If the colts come early, they feed the mare a mixture of ground oats, barley and bran in the proportion of three parts bran, two oats and one barley. The oats and barley are ground together in the proportion just named. They are fed sparingly at first, about 6 quarts of the mixture three times a day,

and take this off gradually as they are returned out to grass. Foals, when young, should not be left out in the cold dews, nor in cold rains. The effects of the hot sun are very injurious; so that from 9 to 4 they should be in out of the sun, and not out at all in rain for the first two months. The only grain ordinarily which they get is by feeding along with the mare. In being weaned they are put in and not let out for some time. They may be left out in the day when entirely weaned, but not at night at all the first autumn. After weaning they are fed oats, in the morning 1 quart, and this is increased, but never beyond 2 quarts. The noon feed consists of ground barley and oats, about 1½ quarts of it. At night they get 1½ quarts, but one half of it is bran. Toward spring the night feed is frequently boiled, consisting of barley and peas, ½ of the latter, and dried with bran stirred in, and fed a little warm with a little flax-seed meal added. When fed cold the flax-seed is steeped for about six hours. In spring they are turned out in the day and brought in at night till weather gets warm. The hay is timothy and clover. The second summer they get grass, the horse colts being kept in box-stalls large and roomy. They are then fed from cut hay or oats and peas also, given gradually, increasing the feed, but of the same ration.

The second winter the same kind of feed is fed, the quantities being increased. The morning meal consists of 3 quarts whole oats; at noon they get 3 quarts of the mixture, and at night 3 quarts, but when roots are fed it is at night, about 4 quarts of roots if potatoes, but if turnips or carrots a little more. They get all the salt they want, which the Messrs. Bell are satisfied has a tendency to prevent them from taking cold.

The mares are not fed so heavily. The third winter they get simply a little more than the second winter, *but of the same kind of feed*. The stallions, when being fitted for spring service, get the same kind of feed. They get a handful of grain; flax-seed once a day for about 2 weeks, commencing sometime in March, and during the season of service they get hay three times a week. They get oats morning and evening, gauged by the appetite and wants of the horse. They are fed the mixed feed once a day, and during the season they get a handful of oatmeal in their drink, and a feed of 4 quarts of potatoes about three times a week.

The Shorthorns of Springburn Farm.

But few men, perhaps, have a full idea of the controlling influence of association. Unconsciously it weaves around us its warp, and before we are aware of it we are inveigled in its meshes. In other ways than in morals it matters a good deal as to the sort of neighborhood in which we live, for we become affected by the practices of those around us in material things, for the better or the worse.

This makes plain what would otherwise be unaccountable, the fact that in some counties of Canada pure bred stock is numbered by the thousands, and in others of them they have not as yet reached the hundreds, although the inhabitants of both localities in intelligence are much on a par.

It is a great matter, then, as to the direction which movement in the line of improvement takes. If the common standard is low, improvement will be slow, but if a few resolute spirits aim high in any neighborhood, it will be well for that neighborhood in the end, for the electric power which animates them will be communicated more or less to one and another on every side. If the ambition in any neighborhood is simply to make money without regard to future results, the standard of agriculture will not be high, but if that ambition takes the direction at the same time

of improving the producing power of the soil, the standard at once rises.

In Glengarry, as in many other counties of Canada, the idea of the improvement of the producing capacity of the soil is only taking root, and this, along with the influence of association, accounts for the limited number, comparatively speaking, of pedigreed animals of any class to be found in this fine county. Dairying has also of late much absorbed the attention of the farmers, which does not render the possession of pedigreed stock so essential in the meantime. And this, too, has had an influence in keeping down the number of this class of stock.

However, the ice has been well broken by Mr. R. R. Sangster, of Springburn Farm, Lancaster, which is situated about three miles from the latter station, on the main line of the G. T. R. Mr. Sangster has bred Shorthorns since January, 1875, and during the twelve intervening years has been enabled to give a good account of the work done, as he is now the owner of over 30 head of pure Shorthorns, with a number of calves yet to come, notwithstanding the sale of bulls that have been made from time to time. A bull and a cow had been purchased in 1884 from S. Heacock, Kettleby, but none of the present herd are from these.

In January, 1885, the roan cow Minnie Darbie, calved February 11th, 1872, and bred by Messrs. Birrell & Johnson, Greenwood, was bought from the late Jos. Thompson, of Whitby. She was got by Clifton Duke 2d 7711, and out of the dam Miss Priscilla by Prince George 2d 4262. No less than 18 of the present herd are descendants of this prolific cow, although some bulls have been sold.

In 1885 at the sale of the late Jos. Thompson, Spottie 2d, alias Mayflower, in the New Dominion H. B., was bought. She was bred by G. Bruce, Heatherwick, Scotland, and imported by J. Isaac, Bomanon, Ont., got by Statesman (45659), and running back into a family of Mayflowers on the side of the dam. She is a cow with good furnishings, red and white in color, with a better than average front, but is somewhat plain in rear. She has produced two calves for Mr. Sangster, and has one at foot, sold to Mr. Jas. P. Fox, West Winchester, Ont.

At the dispersion sale of the late Mr. Thompson, Whitby, Rosebud 3d was bought for Springburn. Calved November 9th, 1883, and red in color, bred by Mr. Thompson, out of the dam Rosebud 2d, by Royal Duke (35356), and by the sire Royal Cecil—1774—. She shows an ancestry rich in good blood. Her g. d., Rosebud (imp.) is by Sir Christopher (22895), bred by Sir R. Booth. Royal Duke is a Kinellar bull, and Diphong (17681), his g. g. s., was a Cruikshank bull. Myrtle was bought in 1886 from R. McLennan, Lancaster. She is a red and white, got by Prince of the West—707—and out of the dam Myrtle 5th by 31 Duke of Grange—708—. The g. d. Myrtle (imported by the late George Isaac, Bomanon, is by the Kinellar bull Nobleman (26967).

The first bull used in the present herd was Prince of the West—707—, a red, bred by G. Thompson, Alton, got by Cambridge Duke 2d—105—, dam Duchess of Nissouri by Scotsman 2d, and possessing a good streak of Fashion and Airdrie blood in the middle of the pedigree. Most of the animals of the present herd are out of this bull.

The present stock bull is Starlight Duke—2295—, bred by J. S. Armstrong, Eramosa, from the Bow Park bull Butterfly's Duke—233—, by 4th Duke of Clarence (33597). The last crop of calves and that now coming are by this bull.

It will thus be seen that Mr. Sangster has laid a good foundation on which to build. He has been

more than usually successful in getting calves, and though in a neighborhood where Shorthorns are not greatly in favor, has made good sales of young bulls at paying prices, having only a few on hand at present unsold.

The herd is well kept in substantial buildings of the old style, and is evidently in a prosperous condition. It has proved a paying investment thus far, and the prospect for increased revenues is much better than ever before.

Mr. Sangster also keeps good horses of the grade Clyde type, and told us the unfailing story of all good stockmen, that his farm is vastly more productive than it was years ago, and without the purchase of any artificial manures.

The Annual Meeting of the Dominion Shorthorn Breeders' Association.

As a large number of the breeders of Shorthorns were unable to be present at this meeting, and would doubtless like to know in detail what took place, we subjoin particulars kindly furnished by the secretary, Mr. Wade, and taken from the minutes:

The annual meeting of the Dominion Shorthorn Breeders' Association was held in St. Lawrence Hall, Toronto, Thursday, 24th February, 1887.

The president, John Dryden, M. P., of Brooklin, Ont., in calling the meeting to order, spoke of the great importance of this meeting to all interested in Shorthorns. He was glad to see so many present, the members from a distance were an evidence of the interest taken in this meeting. After reading the minutes of previous meeting, we would hear the report of the executive committee and the rest of the time would be devoted to the discussion of Mr. McQueen's motion.

The minutes were read by the secretary, Mr. Wade, and adopted.

Next the report of executive committee was read.

Mr. A. R. Gordon moved that the report be adopted; seconded by Mr. Linton.

A discussion then arose as to whether adoption of the report would affect the bull Roger. Mr. Gordon was of opinion that it would not.

Mr. McQueen thought that if the minutes were passed in this state it would constitute a two-thirds vote. But it had been decided by the executive meeting the night before that this would not affect the matter.

The motion was carried.

Next came the election of officers, which resulted as follows:

President—John Dryden, M. P., Brooklin, Ont.

First Vice-president—Richard Gibson, Delaware, Ont.

Vice-presidents—J. S. Williams, Knowlton, Quebec; Prof. G. Lawson, Halifax, N. S.; Hon. D. Ferguson, Charlottetown, P. E. I.; J. E. Fairweather, N. B.; G. L. Smellie, Binscarth, Man.; James Steele, Spillamacheen, B. C.; James Geddes, Calgary, N. W. T.

All the members of the retiring A list were re-elected.

The following members of the revising committee were re-elected: Messrs. J. C. Snell, Edmonton; Arthur Johnston, Greenwood; T. C. Patteson, Eastwood; Jas. I. Davidson, Balsam; Jas. Hunter, Alma; A. R. Gordon, Cookville, and F. Green, Innerkip.

While the scrutineers were counting the ballots the president announced that the appointment of auditors was in order.

Mr. Gordon was in favor of employing a professional accountant. Several speakers spoke in favor of the idea, and several against it. On a motion being made, it was lost by a large majority. Messrs. Whitelaw and Laidlaw were elected auditors.

The president announced Mr. McQueen's motion to alter the standard.

Mr. McQueen offered a resolution to the effect that the standard of the Dominion herd book be made the same as the British American, which admits animals to registry tracing to imported animals registered in the English or American herd books. He thought the committee had taken unwarranted action, and gone beyond the expectations of stockmen who had

given their consent to the scheme. There was no guarantee that the new book would be any better than the old one.

Mr. Fothergill, in seconding the motion, said the presence of such animals as had been thrown out in the herd book, did not contaminate the rest, and breeders were not obliged to breed to these unfashionable strains. Herd books had only been in existence in America since 1846, and the first English book was not published earlier than 1822. While we have the sworn statement of men who knew the particulars, that certain animals to which some of these rejected ones trace, were imported more than twenty years before the first public record was kept, and in the face of the committee referred to, accept the descendants of these same cattle.

Mr. C. M. Simmons thought it the duty of all to stand up for the committee; they had done now what would have to be done at a later day. Many of those who now opposed the standard established by Dominion herd book, were in favor of it before they learned that their own fingers would be burned.

Mr. Ed. Jeffs said the value of his herd had been decreased by the change in standard, but he was willing to abide by the result provided that the standard had been permanently fixed, and that registration in the Dominion herd book would in future constitute a guarantee of purity of blood.

Mr. Gordon defended the action of the committee, and said that these men found no fault with the standard as now fixed, except that it was too high, too near absolute purity. In a few years it will be found that this was a very wise action. Some he knew would suffer by it now, and the committee were sorry for them, but they did what they thought best for the real interest of Shorthorn breeders in Canada. He knew that Mr. Pettit had a good deal of information as to the bull Roger, yet they could not accept it without going beyond the rules of the association, and it would never do to make one exception, even for a bull of such acknowledged excellence as Roger. Appearance should never be a qualification for registry.

Mr. John Warren thought we had now arrived at a standard as near perfection as it was possible to attain, and was for upholding the committee's action.

Mr. R. B. Fleming faulted the breeders for deserting the British American herd book.

Mr. Graham, a young breeder from Belleville, said he had been very unfortunate, having had all his cattle thrown out, but he would bear his loss with a good grace, and hoped that now the standard was permanently fixed. He was for establishing a thoroughbred standard and sticking to it.

In reply to a question by Mr. Pettit, Mr. Johnston said that every animal entered in the Dominion herd book was certainly eligible for the American.

Other speakers followed on both sides with short remarks. At last Mr. Dryden, having ascertained there were no more speakers, put the following motion:

"That the standard of the Dominion herd book be made the same as that of the British American, which admits cattle tracing to imported animals registered in the English or American herd books."

The motion was rejected by a vote of 74 to 10.

The meeting then adjourned.

Outbuildings for the Northwest.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Could you or one of your numerous correspondents favor me by a few hints on the arrangement and plan of buildings for a 200 acre farm for the Northwest, which, as lumber is not procurable, must of a necessity be of logs, and consequently as simple as possible. Space would be required for about 30 head of cattle and 50 head of sheep, besides a few horses and pigs. If my requests are not practicable perhaps you would favor me by referring me to some work on the subject which would be likely to meet my wants.

A SUBSCRIBER.

Northwest settlers are the best men to answer this question. The information cannot so well be got from books. Will some one of them please send us a diagram—that is, of basement floor, and necessary discription?—ED.

"I consider that as an advocate for the farmers' best interests your journal is A1. I hope the farmers as a class will give it their best support."—R. Forsyth, Altona, Ont.

The Rearing of Calves on Skim Milk.

Below we give the method of rearing calves from skim milk as recommended by Prof. J. M. Robertson, of the Ontario Agricultural College, Guelph: It is better, in the opinion of the professor, to take the calf away from the cow as soon as dry. For about two weeks it is fed new milk three times a day, giving two quarts at each feed, and the calf is kept in any place that will be comfortable. At the end of two weeks skim milk is substituted for new milk, but gradually, the process of transition extending over but one week. This change is brought about by pouring some new milk into the ordinary skimmed milk rather than by skimming the new milk at lengthening periods of setting.

At the age of two or three months the milk is fed but twice a day, about four quarts at each feed, the change in increase in quantity always being gradual. The milk should always be fed sweet, and when young should be fed at a temperature of about 90°, and never at a temperature less than 60°. A good guide is that degree of heat which feels comfortable to the sense of touch of the finger. The milk may be most conveniently heated by pouring in hot water. They should have access to a small quantity of meal, one half bran the other half bruised or ground oats. A small handful of linseed meal is put into every peck of the mixture. The quantity of the meal should be so increased that they may have all they want of the meal the first season. Always keep the steer calves in the first season to secure more growth, and the heifer calves out save when the sun is warm, to secure constitution and vital force. Proper treatment during the first six months, the second six months, and the third six months is greatly important, and important in the order named.

This paper was in type before the receipt of Prof. Robertson's very valuable article on this subject in another column, which every cattleman should read with the utmost care.

The Clydesdale Horse.

BY D. M'CRÆ, GUELPH.

(Second Paper.)

MODERN BRITISH BREEDS.

No country in the world has done so much to improve the breeds of horses as Britain and no country has to-day as many classes and breeds as that land has. From the small Shetland pony to the heavy draught there are many breeds and grades, and all have been by careful and judicious treatment brought to a standard of high merit and an adaptability for the purposes for which they are used. Of the many small and medium breeds we need say little, as they are far removed from our special subject. The smallest and best of the pony breed is probably the Shetland, with its varieties. These little horses in their native islands are left almost running wild till caught for sale. They are exposed with little artificial shelter to the storms of their native islands. They seldom receive any food but what they can gather from the sedgy bogs and barren hills of the country. In severe winter weather they come down to the coast and feed amongst the sea-weed thrown up by the tide. No wonder they have a good coat of shaggy hair which sometimes felts up and makes a good great-coat. They are chiefly used for children, are easily taught, and become sometimes as sagacious as a dog when kindly used. They show in a marked degree what treatment will do in this respect to the size and appearance of an animal. Wales has a breed of ponies adapted to an elevated country of scanty herbage. They are useful and hardy, and some of them are very

well made and have good style. They average about 13 hands and have neat heads, good shoulders and backs, and generally splendid feet and legs. The Exmoor pony is a hardy little animal, thick and chunky, and have the reputation of being great jumpers. The Highland pony is strong, useful and docile, will carry heavy weights and are very useful over boggy ground.

The racehorse is the most high-bred of any of the breeds of British horses, and superior for qualities of speed to any horse in the world. They have improved very much both in size and speed during this century. They are now from 15 to 16½ hands in height; some reach even 17 hands. As to the question of bottom and stoutness, it is a disputed point, and one that has been much discussed. The blood of the racehorse has been mingled with the other native varieties in every degree. In this way certain valuable properties have been communicated to the inferior races, and many varieties have been formed into different classes suitable for special purposes.

Of carriage and coach-horses the Cleveland bay has been coming of late years to the front. Bred originally in Yorkshire, and used for a pack-horse, he has many valuable properties. They are of a rich bay color with black points, and some of them are very handsome and suitable for private carriages. Some years ago it was said that the old breed was almost if not altogether extinct, but there has been a good modern demand for just such a style of horse, and they are again taking their place amongst the breeds.

THE SHIRE OR CART HORSE.

Of all the draught breeds of English horses the Shire to-day takes the foremost place, and an extended notice, taken chiefly from the writers in the Shire Stud Book, will not be out of place here: The Shire horse of to-day is one of mixed breeding. Writers of 50 or 60 years ago were ceaseless in their objections to the slow, ponderous movements of the draught horses of that day, and urged crossing with animals of more slender build. Some sections of England are now suffering from too much of this light crossing. Stallions of the old Shire breed were mostly black, many were a sooty black; others a dark slaty black; most of these had white markings on the legs and face. Brown and grey were the other colors common at that time, but not so numerous as the black. Staffordshire had most of the browns, while Lincolnshire had almost exclusively black, and the greys were more common in the counties to the south. The old English Shire horse is thus described: Head, large in all its dimensions; forehead and face wide, expressive and intelligent; jaws deep; ears, small and carried slightly outward; eyes, small, not prominent, and generally mild; nostrils, wide; mouth, large, firm and well closed; neck, long, arched, deep, strongly joined between the shoulder-blades, carrying the head well set on by strong, deep and broad attachments; shoulders massive, muscular, upright, low and thick at withers; forearm, strong and muscular; knee, broad and flat; fore and hind canons, short and thick, often 12 inches around, covered with coarse skin, and with a beefy look and touch; fore pasterns very short, strong and upright, hind ones more oblique; feet, large, flat, weak at the heels with horn sometimes soft and spongy; thighs narrow, lacking inside muscle, and having a "split up" look; hocks, rather defective but not showing any predisposition to disease, generally too short and too round, and not sharply defined; hind action, limited and wanting in elasticity; hind legs bent, hocks thrown backward and feet forward, breast, wide and full of muscle, showing great strength rather than quick movement; back long, narrow, and dipping behind the withers;

heart-ribs well arched, but not very deep, hinder ones rounded but short, and last one too far forward; croup, bent at a considerable angle and lacking quality; dock, strong and thick, with broad, powerful attachments, altogether good appearance, with a grand front development, but in contrast rather lacking behind; carrying a great growth of hair, that of mane and tail abundant, strong in texture, glossy, and sometimes several feet long; legs, fore and hind, carrying a profusion of coarse long hair. This was a distinctive feature of the old cart horse breed. From this description it will be seen that the Shire horse of to-day is much improved and is much better fitted than his progenitor for his special duties. Frederick Street, Esq., claims that the Clyde has been improved by a mixture of Shire blood, and that the Shire has been deteriorated by a mixture of Suffolk blood. He sums up his description of the modern Shire horse as follows: "The feet should be fine, deep, and wide at heel; pasterns not too long, and straight; flat bone; short between fetlock and knee. A stallion should measure not less than 11 inches below the knee; girth, 93 to 99 inches; should not stand more than 17 hands; chest wide; head, big and muscular, without coarseness; eyes, prominent and kindly; the head and eyes together should show intelligence and good temper; shoulders well thrown back; full flowing mane; short back, well arched ribs; deep middle; large muscular development of the loins; long quarters, with tail well set on; the over part of the rump wide and well let down; good, big second thighs; large, flat, clean hocks; plenty of long silky hair on legs." To sum up, a horse should in form be long, low, and wide. In constitution thoroughly free from all hereditary disease. A main point is good action. He, above all, should be a good mover at the cart-horse pace—walking.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL

Our Nova Scotia Letter.

SUSTAINING FERTILITY BY MEANS OF IMPROVED STOCK.

From all appearances, the farms in the larger part of Nova Scotia are losing continually in fertility, and a time is nearly approaching when they will no longer be profitably worked under the present system.

When that day arrives, it will of course be necessary for the population residing on these farms to move, either into the towns or into some locality where new and unexhausted lands can be cheaply procured. This has already happened in many localities, and abandoned farms are to be met with in many, or all countries. In many of these cases the land was naturally infertile, and would have proved a more profitable investment if left under wood, but in many cases this was not so, and the loss of fertility is owing to a wasteful system of farming, by which the stock of plant food naturally existing in the soil has been so far reduced that the crops grown no longer give a profit. The great question for farmers in Nova Scotia is to decide whether it is most to their interest to remain on the farm and seek to improve it, or to break off and move to the more fertile regions of the West. There can be no doubt that to many of them the course which offers most material gain is to go West, but the attachment which all men feel for home and friends acts powerfully to prevent them from following it.

To the Government of the Dominion, a removal West would be valuable in filling up our new country with a fine population, which, in all manly qualities cannot be surpassed. To Nova Scotia, such a removal would, on the other hand, be a serious matter. Still, in the end, it might prove a gain even to the Province, as it is not to the advantage of a country to have a large part of its population so placed that its labor is not expended to the best advantage. But while some may move West, many will remain on the farms and work the old fields. What can be done to help these to improve their condition? Much of our land in Nova Scotia is hilly and not good arable land

in any sense. Yet this is for the most part farmed exactly like the land, which, lying level and full of clay, is the real plow land. The same crops are taken and the same system pursued by nearly all. There is not even a rotation of crops except of the most simple kind, and root culture is scarcely practised at all. Under this evil want of system the land is becoming poorer, and in a short time much of it will fail to support the toilers who at present find a living.

The remedy is hard to apply, but is, of course, quite evident to anyone who knows the history of agriculture in other and older countries. It is not easy to apply it, because it involves the complete change of life of a great many persons, and the emigration of a considerable number. All our hilly land should be brought under sheep and kept in sheep runs for all time, or at least until rising values would enable the lower lying parts to be cultivated with a profit. If this opinion be correct, and of course that admits of discussion, there is a great necessity for the full study of the manner in which this change can be brought about. A good many circumstances render it difficult to make the change which is involved, and a good many questions require careful consideration before any man relying upon private means could venture on the experiment.

It has been rumoured in this Province that Professor Wm. Brown, of Guelph, had turned his attention to this question and meditated a visit to Nova Scotia in connection therewith. It is to be hoped that this rumor rests on a good foundation. The study of the adaptability of our Province to become a sheep raising country by one as well qualified as Professor Brown, would be of the utmost value in deciding the difficulties and chances of success, and secondly, in attracting the needed capital. Upon one point I believe all are agreed. The farmers are not securing such good returns for their labor as formerly. Many farms are failing to produce. Many men, who, twenty years ago sold hay, are now compelled to buy that article in order to feed their stock.

Generally speaking, men say that the farmers are not so well off as they were. By some, this deficiency in profits is attributed to confederation, and a common argument with those who favor repeal, is the poverty of the country. Surely, however, this is not good sense. Our diminished receipts come from exhaustion of the soil. It is an experience which we have in common with the farming of the New England States, and of the Southern States, of the Union. Even the rich lands of the West are beginning to show the same result. The remedy is expressed in the old saying, "Feed the land and it will feed you." The only question is, how to do this most advantageously. In all our high lying, light lands, the sheep should be made the instrument. The demand for our lambs is unlimited. They are taken away in large numbers to the American markets, and the British market is capable of receiving any number which we can raise. To the people of the Maritime Provinces, the JOURNAL can be of great service by fully discussing this matter, editorially and by the contributions of correspondents. It is in a line with the professed intention of the JOURNAL to promote the introduction of improved stock. Almost all our sheep are of no particular sort, and are small sized. At the same time, they are producers of first rate mutton, much more enjoyable than that of the fat sheep, which are brought from the Upper Provinces to the Halifax market, and should, in the form of mutton, command a much higher price. A judicious cross upon this stock would give us a model mutton producer, and by increasing our market abroad, would add to the wealth of the Province.

M. R. L.

Manitoban's Letter.

(Too late for March.)

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In the February number of the JOURNAL appeared a letter from "Manitoban," dated at Brandon, Man., and as I am the only Shorthorn breeder, whose post office address is Brandon, the readers of the JOURNAL in Manitoba who are acquainted with me would naturally suppose that I was the author of that letter; and as I hold an altogether different opinion on the herd book question from that given by "Manitoban," I think that in justice to myself I should make my views known. I might have overlooked the matter, only I consider it very unfair for any dissatisfied person to air his grievance under the cloak of another, and I trust if "Manitoban" wishes in future

to make known any supposed wrong, he will write over his own name.

"Manitoban" is doubtless one of those who thought he saw a "pot of gold," knowingly investing his "every surplus dollar" in purchasing rejected animals at greatly reduced prices, expecting to palm them off on the unsuspecting farmers of Manitoba as pure bred Shorthorns, but has since discovered that the game will not work, as the first question asked by intending purchasers is, are they registered in the Dominion Herd Book? And consequently this speculator in rejected Shorthorns has a number of unsold animals on hand, and imagines a great wrong is being done him unless the standard is modified. As an example of what is tried to be done in Manitoba: At the Western fair last fall, a breeder when asked to produce the pedigrees of some animals he was exhibiting, feigned very much surprise that it was necessary to produce pedigrees when exhibiting Shorthorns, although he claimed considerable notoriety as a breeder and importer. The standard of the Dominion Association is high, but not higher than necessary. We have now a foundation which cannot in future be undermined, and that is just what is required, a standard in which the most perfect confidence can be placed. The herd book is the only guarantee we have as to pedigree. As to individual merit, each breeder must exercise his own judgment and fancy.

At the annual meeting, to be held in Toronto, on 24th inst., a discussion of the Shorthorn standard will take place, and I trust, after due deliberation, the Association will see the wisdom of maintaining the standard as it now exists, and that all breeders will unite in making the Dominion Herd Book a grand success.

JOHN E. SMITH.

Beresford Stock Farm, Brandon P.O., Man.

The Shorthorns at Maple Lodge.

In the township of McGillivray, county Middlesex, 20 miles north of London, $3\frac{1}{2}$ miles from Ailsa Craig, and 1 mile west of Lucan crossing of G. T. R. and L. H. and B. R., in the very centre of the most fertile part of that tract of land lying between London and Guderich, conceded to be one of the choicest in the province, is situated "Maple Lodge stock farm," the property of Jas. S. Smith, Maple Lodge P. O., comprising 225 acres of land, being a rich clay loam, naturally drained by a free subsoil, and watered by spring wells and running streamlets. About 80 to 90 acres are plowed; 30 acres covers the area sown with wheat, the balance is sown with coarse grains and roots; of the latter generally 10 acres, chiefly mangolds, 1,000 bushels per acre being the average crop. The land is heavily manured for roots. Spring wheat follows, and it is seeded to grass, timothy, alsike and red clovers, of which very fine crops are grown, usually averaging over four tons per acre of hay.

In 1881 Maple Lodge was awarded the medal by the Agricultural and Arts Association of Ontario, as the best managed and cultivated farm in North Middlesex county.

For thirty years Mr. Smith has been breeding Shorthorns, constantly improving on the maternal of the foundation, both by the exercise of his own judgment in various ways, but more particularly by the infusion of fresh blood in the female line as he found it desirable. Being a first-class and thoroughly practical farmer, and a progressive agriculturist generally, he could not be satisfied with the "scrubs" that were then so prevalent. Learning from experience, with a fine herd of high grades kept for several years previous, that what would keep a scrub well, would also keep a thoroughbred well, though double the size, and keep it in better condition than the other, he made selection in 1857, from the herd of the late George Robson, of two young cows of the Lavinia family. Queen of the West, by Victor (12268), a Bates bull, was one, and the other Daisy 2d, by the Princess bull Shenandoah 948. Both were from the same dam,

Daisy, by Halton (11552) g. dam Lavinia 4th from the herd of Hon. A. Ferguson, and got by Duke of Wellington (3654), etc.—pure Bates, of the best families, on a Colling foundation. Daisy by Halton, was a most wonderful milker, an attribute of Bates cattle which has carried them to the front in all countries, when in competition as milkers or dairy cows.

Mr. Smith has always made it his aim to retain this milking quality in his herd, and with so much of success that in it there are several cows which have made nearly two pounds of butter per day, while their calves have gained at the rate of three pounds per day up to eight months old, fed on the skimmed milk, with flaxseed tea added, and a fair allowance of grain, showing that they are beefers as well as milkers.

The first bulls used were the pure Princess bull Shenandoah 948, and imported Lord of Lorne (16428), both owned by Mr. Robson, and grand animals and show-bulls in their day. These were followed by Shenandoah 2d, 6364, a lengthy, thick-set, dark roan bull, of Bates blood chiefly. Then followed the Bates Acomb bull General Lee, and the Seraphina bull Royal Duke of Gloster 5155, the latter bred by Mr. F. N. Stowe and owned by Mr. Robson, and winner of first prize at the Provincial Exhibition two consecutive years. He was sired by 12th Duke of Oxford (17742), dam Sanspariel 3d, by Friar John (12915).

After that came Artemus 21968, an excellent bull, and a very successful sire. He was principally of Bates breeding. Some of the choicest things in the herd have his blood in their veins. It was with cows sired by Artemus 21968, and Shenandoah 2d, 6364, that Mr. A. Lynch, of Sotogon, Man., sixteen years ago, laid the foundation of his herd, now numbering seventy females, all descended from those cows, and of which herd that able judge, Mr. James Hunter, of Alma, said last autumn, "They are second to none in the Dominion."

Artemus gave place to Gladstone 19854, a roan Bates bull, bred by Mr. Jas. Kirby, Milton, and got by Duke of Marlboro 55871, he by the famous 6th Duke of Thorndale, dam Mountain Daisy, by Garibaldi, etc. Gladstone won first prize at Western Fair, London, 1870, and was subsequently sold to a gentleman in Salt Lake City, Utah.

The place of honor was then given to Matchem 20377, purchased 1871, from his breeder, Hon. D. Christie, Paris. Matchem was a large, dark roan bull, with very even, thick flesh, weighing 2,800 lbs. He was sired by Mr. Christie's famous imported Knight of St. George (26544) (publicly sold for \$1,300 when five years old), dam May Queen, the winner of two Provincial first prizes, by Mr. Christie's Oxford Lad (24713), the winner of a large number of prizes and medals; among them were first prize and sweepstakes at the New York State Show, 1862; first at Hamilton Provincial, 1864, and in 1865 he won first prize, sweepstakes, and Prince of Wales' prize at the Provincial Exhibition, London. His g. dam, Sanspariel 4th (winner of two Provincial first prizes), got by 12th Duke of Oxford (17742), was also a prize-winner. The Seraphina family, of which Matchem was a member, is celebrated in Great Britain as well as America, for their great beefing and milking qualities, combined.

In 1883 a Bates cow, Mattie, was purchased from the Hon. George Brown's Bow Park herd. A son of this cow was used by Col. Taylor, London, on his Craggs family, siring amongst others the Duchess of Springwood, illustrated in C. H. B., vol. 2, page 438. After breeding one heifer calf from Mattie, got

by Matchem, she with the latter bull and another female, were sold, 1874, to a gentleman in Wisconsin, U. S.

In 1875 Famosa Chief 17076, of Mr. Booth's Fame family, of Warlaby, was purchased from Bow Park, a very handsome red, whose stock showed great uniformity; but an unfortunate use of a too strong mixture of Miller's Tick Destroyer to destroy vermin, cut short his usefulness after the first year.

He was succeeded by the choicely bred Bates bull Imperial Butterfly 3d, --220-- got by imp. 4th Duke of Barrington (30924), dam Belle's Butterfly, by Duke of Geneva (30958), (also the sire of the \$12,000 2d Duke of Oneida, and the \$10,000 7th Duke of Oneida), g. dam by Imperial Oxford (24185), g. g. dam by Master Butterfly 2d, (14918), etc. This bull was also bred at Bow Park.

Then followed another from the same herd, 2d Famosa Chief 26547, a bull of similar breeding to Famosa Chief 17076, got by imp. Royal Tudor (35441), dam by Udera's son of Grand Turk (2969), g. dam by Mr. Booth's Neptune (11847), etc.

In 1876 the Symes cow Duchess 1st, by Highland Chief 6864, tracing through the sweepstakes bull Imp. Prince of Wales (18630) and imp. Nicol 5037, to imp. Jane 3d, from the herd of Mr. Robt. Syme, Scotland, was purchased from Mr. Simeon Beattie, and the same year Princess Royal 2d, from Mr. John Hope, Bow Park. The latter was sired by Proud Duke (5879), the first five sires in whose pedigree were sold for over \$5,000 each; dam Princess Royal by imp. Lord York (26766), a half brother to Mr. Cochrane's 1,000 guinea heifer Duchess 97th, and down through Bates sires to Daisy by Wild 11134, imported by the late Mr. Walter Drew, of Kentucky.

In 1878 Marquis of Lorne -141- bred by Mr. W. S. Marr, Aberdeenshire, Scotland, and calved the property of J. S. Armstrong, Speedside, Ont., was placed at the head of the herd. He was a thick fleshed, short-legged heavy bull, and proved an excellent sire.

Then came the young Bates bull 6th Earl of Goodness 32529, from the Bow Park herd. It was while this bull was in the herd that Maple Lodge stock farm was awarded a medal among the farms there in competition and of the stock then on the farm (1881), the judges, Messrs. J. I. Hobson and Chas Drury, M. P., in their report, say, "With regard to Mr. Smith's stock, he stands very high in that respect, being a noted breeder of Durham cattle and Liceshire sheep. The herd at the time of our visit was not up to its usual size, owing to numerous sales in the fall *Those on hand, however, were grand.* Eleven cows were found to be in splendid form, square, fleshy, and with good constitutions. The bull in use was 6th Earl of Goodness 32524, from Lady Goodness 13th, and got by 30th Duke of Oxford (imp.), an animal well worthy of his place at the head of the herd. He also had his usual flock of breeding ewes, 25 to 30 Lincolns—a splendid flock, with no sign of any weakness."

Baron Constance 5th, illustrated on first page of this number, has been the stock bull since 1883, as sisted during the year 1885 by his son 2d Lord of the Manor, from the dam Malvern Gwynne 4th, sold at the great New York Mills sale for \$1,750. In 1886, and at present, he has for company the superbly bred Lally Barrington bull, Duke of Colonus. The Duke is developing finely, and the calves from him give promise of being worthy of their aristocratic ancestry.

In 1884 Mr. Smith added to the herd the Cruik-

hank heifer Lovely Queen 3d, from Mr. Cruikshank's cow Lovely 19th, then the property of J. S. Armstrong, Speedside, and sired by Butterfly's Duke -233- a son of the great 4th Duke of Clarence (33507), and the Bow Park show cow imp. Butterfly Duchess. This cow with her two daughters are still in the herd. The last acquisition was the Constance cow 2d Constance of the Manor, the dam of Baron Constance 5th. Since she came to the Maple Lodge she has given birth to a beautiful red heifer calf by Duke of Colonus. The Constances are very highly prized in America as well as Great Britain, because they possess all of the good qualities claimed for the Scotch bred cattle, and in addition they have very great size and style. The herd now numbers 40 head, including descendants of all the cows introduced from time to time.

Beside the improvement in his own herd under his management, Mr. Smith has conferred a great benefit upon the farmers of the surrounding country, who lay much stress on the claim that their cattle have some of the same blood as Mr. Smith's cattle. Animals selected from this herd have also been the foundation of many herds of thoroughbreds in Canada and the United States.

Mr. Smith has also been breeding Leicester sheep since 1854, when he laid the foundation with stock imported by the late Geo. Miller, of Markham, introducing imported animals and some from the flocks of the best Canadian breeders of Leicesters from time to time since then. At present the flock is not large, but very choice and thrifty. A few Berkshire pigs are also kept.

Registration of Imported English Shorthorns.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Just as the vote on Mr. McQueen's motion re. Herd Book standard was taken at the meeting of the association, a member asked some question as to the reasons for fixing 1865 as the point after which imported cows must be registered in England. It has occurred to me that some information should be given for the sake of those who were not interested in the inception of this British American standard. Let me say that among the earlier importations, before a herd book was established in Canada, many animals were brought over because of their *individual merit* and *intrinsic value* as Shorthorns, but as the pedigree was not needed for registration here, it was in many cases overlooked at the time of purchase. Years afterwards, when it was needed for registration, it was discovered that in some cases no registration had been made in England; in others various irregularities existed, which marred the pedigree and made it imperfect; in others, the parties selling had died, and the property changed hands, and no pedigree could be obtained. The question the breeders had to decide was whether such animals should be excluded from registration. A few took the ground then, and I believe do now, that these all ought to be excluded; but the vast majority decided that, as they were undoubted Shorthorns, brought here at that time at great expense, and very largely used at that time as forming the foundation of many herds, there was no just reason for their exclusion.

The next point was, where will you draw the line? The matter was fully discussed at the time, and the year 1865 was chosen as the most reasonable time—preventing indiscriminate importations on the one hand and on the other doing justice to the early importations brought here in good faith for the improvement of our common stock.

Some other year might have been named, and I presume justified, but the chief reason for fixing that date, so far as I recollect, was that about that time registration was commenced here, and any one importing after that date knew it would be required, and if neglected it was with their eyes open. The first volume of our Canada herd book was published, I think, in 1867. I have never heard of this rule working harshly. It was fixed, not in the interest of any ring or class, but was the deliberate, calm judgment of

what was just and best in the interest of Shorthorn breeders generally. So far as pedigree can give value to an animal, such animals can never have the same value as one whose pedigree is the more perfect. In other words, any man choosing between two animals of equal individual merit, will prefer the one with the pedigree the most perfect. Some assert that by this rule you admit what seem to be virtually English grades, while you exclude Canadian grades altogether.

Let it be borne in mind that these early importations were known Shorthorns and that they were brought from a district where these cattle have been bred for generations, while here the crosses are started in many cases from the veriest rubbish. They may turn out better or worse. Some continue to improve after the first cross and some do not. In England the mere fact of registration does not give value, as it does here. The result is, there is no object in pedigreeing only exceptionally good animals, and these, when put up at auction, never command prices equal to those of longer known breeding.

JNO. DRYDEN.

Brooklin, March 1st, 1886.

Our Scotch Letter.

THE "RED, WHITE AND ROAN" IN THE NORTH OF SCOTLAND.

(From our Aberdeenshire Correspondent.)

It would be difficult to overestimate the beneficent results that have followed the introduction of Shorthorns into Scotland. The experiment of using English shorthorn bulls on the native cows was begun in Scotland about a century ago, and some thirty years after it had been taken in hand by the famous Captain Barclay, of Ury, who was the first to bring the "red, white and roans" practically before the shrewd farmers of the northeastern counties of Scotland. Most of the bulls that were brought into this country about the end of last century belonged to landed proprietors and a few energetic farmers, and were used on selected cows. Even at that time there were breeders who took great interest in their cattle, and had strains which were distinguished on account of their milking or feeding properties. The cattle were used very commonly to work on the farm, and it was probably an object with some of the "early improvers" to put Shorthorn bulls to the native cows in order to raise a breed that would excel when put in harness. Be that as it may, the Shorthorn very quickly made his way to the front, though at first, in certain districts, he was opposed, on the ground that he was considered unsuitable for the "churlish north." One of the first things that brought the Shorthorns into prominence in the northeast of Scotland, was the excellent results of the cross between them and the Black Polled breed. In 1827 Lord Kintore, who had been using Teeswater or Shorthorn bulls to Aberdeenshire cows, bred an ox that became famous, and doubtless helped further to spread the Shorthorn breed in the north. This ox was exhibited at Smithfield when rising six years old, and was said to weigh 320 stones (Smithfield weight). It is said he "was universally admired, particularly his beautiful symmetry, the equable manner in which the fat was laid upon him, and his almost perfect levelness from the shoulder to the tail." This was probably the first instance of the Shorthorn and polled cross being shown at London. The results appear to have been admirable, but it could not have been foreseen at that time how valuable were the services which Lord Kintore was rendering by encouraging the breeding of a cross, which has "held the field" wherever it has gone. There has certainly been nothing to compare to this cross which has made the name of Aberdeenshire beef famous, and now, after the lapse of more than half a century, it is making rapid strides towards the conquest of the north of England. An interesting discussion could be initiated on the question as to how much of the singular success of this cross is due to the Shorthorn, and how much of it could be claimed by the poll; but while the subject is an interesting one, it may here be passed by with the remark that the benefits conferred have most likely been mutual, the one breed adding to the value of the other. That after the appearance of the Shorthorns in the north the cattle of this part of the country began to improve, cannot be doubted, and this very improvement led the farmers to pay special attention to the development of the "beefing" and early maturing properties of their stock, for the better class of which they began to obtain higher prices. Captain Barclay, as has already been pointed out, was the first man who made

his mark as a Shorthorn breeder in the north of Scotland. He was a Scotchman, but by marriage was closely connected with Englishmen, especially in the county of Durham, a well-known centre of Shorthorns. Living a good deal in England, he took a fancy for the "red, white and roans," and in 1829 at the Chilton sale he bought Lady Sarah, got by Satellite (1420). The owner of the Chilton herd, Mason, seems to have bred very closely "in-and-in," for Captain Barclay's cow Lady Sarah was at the time of her purchase in calf to Monarch (2324) a son of Satellite, and the produce was a bull calf, which was named Monarch (4495). This latter bull was used for a few years at Ury with good effect, but Captain Barclay, who was reputed, in vulgar phrase, to have been always "hard-up," brought his herd under the hammer in 1838. The Lady Sarah family and some other tribes which were in high repute among breeders, made an average all round of about £90, an exceedingly satisfactory result, which was probably the means of bringing "The Captain," as he was sometimes styled, back again in a very short time to the ranks of the Shorthorn men. The sale was attended by the *élite* of southern breeders, against whom the northern men, who had only just begun the business in a tentative sort of way, were unable to compete. Nearly all the lots went south, and of the first herd at Ury there is really almost no trace now left in the north of Scotland. The sale was conducted by Mr. Wetherell, the well known auctioneer, who was Barclay's adviser in such matters. It had been such a good one that the owner of the Ury herd, as has been stated, again went in for Shorthorn blood, and Mr. Wetherell purchased and sent through to Scotland ten heifers from the herds of the Hon. J. Simpson, Nottingham, Mr. Burrow, of Carleton Hall, and Mr. Ellis, Cumberland. These heifers do not seem to have been in calf, at any rate, if they were, there is no trace of the produce, and Captain Barclay, who had had remarkable evidence of the popularity and value of the Lady Sarah strain, re-bought from a Ross-shire farmer the "in-and-in" bred bull Mahomed (6170), which, be it noted, was out of Lady Sarah, and by Lady Sarah's own son Monarch (4495). Probably he would have been anxious to pick up the connection with his first herd, and he saw an opportunity of doing this through the purchase of Mahomed, and at the same time securing the services of a first-rate sire. Mahomed, who was a good getter, was used for a short time, and then sold to two English breeders. To succeed him Mr. Wetherell, who was a Bates man and a personal friend of Mr. Bates, hired 2d Duke of Northumberland, a bull with a black nose, and he came to Ury; but the result was unfortunate, the calves being bare, leggy and stiff. To feed one year of such a bull was enough for Captain Barclay, and he was passed on to Mr. Grant Duff, of Eden, and he kept him only for a year. Recourse was again had to the Lady Sarah blood, and The Pacha (7612), a son of Mahomed, succeeded to the lordship of the harem. The Pacha was a very good type of a bull—a short-legged, fleshy, thick, compact beast, and an excellent getter. On another occasion a few additional notes on this subject may be given.

THE CONDITION OF FARMING AND CATTLE FEEDING IN SCOTLAND.

The condition of agriculture in this country is attracting more serious attention at the present moment than it has perhaps done within the memory of this generation. Instead of the depression passing away, the prospect is positively darkening, and the future of agriculture is hid in a portentous shroud. One thing that increases the difficulties which beset stock-raising in this country is the existence of pleuro-pneumonia, which I am sorry to say has lately spread to an alarming extent in some of the northern counties, and notably in Banffshire and Invernesshire. It was hoped that we were about to see the disease stamped out, and breeders were anticipating with pleasure the prospect of relief from the anxiety and losses it causes to those engaged in the cattle trade. Within the last few weeks it has sprung up again with increased virulence, and it would appear as if after all, the trouble taken to prevent the disease spreading and to kill it out, and the money that has been paid for compensation, have been barren of any good results. The disease has spread so rapidly that the prospect seems to have alarmed the Privy Council, who a few days ago despatched a telegram to all the local authorities in Scotland, asking them whether they would be willing

to stop all public sales of stock (except of animals for slaughter), if permission were given to that effect? The replies which the Privy Council received were in some cases in the affirmative, and others deprecated such stringent action. The local authority for the county of Aberdeen took up the position which is logically unassailable. They answered that the prohibition of public sales in Scotland but not in Ireland, as a mode of dealing with pleuro-pneumonia, would fail in eradicating the disease. It is from Irish stock that the disease has always emanated, and Scotch farmers are tired of the very expensive experiment of stamping out the disease, knowing that they have no guarantee that a fresh batch of diseased stock would not be thrown across their borders from Ireland, in which the authorities have shown the most hopeless incapacity in dealing with this terrible scourge. Our farmers complain bitterly of this, as there is no chance of cattle breeding or feeding being made a profitable business until there is a clean bill of health for all the three countries.

Partly from the spread of this epidemic, and partly from the prevailing depression, prices at the spring sales of pure-bred stock have been lower than they have been for a number of years, but as several important sales are yet to come off, I will defer for a month a few notes on this subject.

The spring weather has been altogether exceptionally fine. The land is mostly all ploughed and cereal sowing has begun, the season being abnormally early. This is so far a matter for congratulation, but the range of prices for all kinds of agricultural produce is so low that farmers are unable, even with good crops, to make ends meet. They are casting about for new methods of cultivation and new crops to endeavor to keep the ship "Agriculture" from being totally wrecked, and a movement has been set a-going, its object being the resuscitation of the cultivation of lint, which was at one time a profitable industry in this country. It is estimated that we spend three millions of pounds annually in the importation of flax from abroad, and nearly five millions for feeding stuff, and an attempt is being made to produce at least a proportion of these commodities at home. There is no profit on wheat or barley, and even oats have now gone so far down in price that farmers can hardly grow them to advantage. But worst of all beef has reached a lower price than has been seen during the last quarter of a century; it has gone down from 80s. to a little over 50s. per cwt. It is here that the agricultural shoe pinches worst. This year very heavy losses have been made. Even with Canadian bullocks bought at Glasgow at from £14 to £18, it has been found, in many cases, impossible to make gain, and it is quite common to hear of farmers losing more than six months keep on their stock which they are now compelled to sell at not much more than their original price to the feeder. On ordinary sized bullocks there is a drop since the new year of about £2 per head, which represents the profit that the feeder naturally looked forward to. Aberdeen has been scheduled as a port for the landing of foreign cattle. Suitable sheds and a landing stage have been erected at a cost of some £3,000; but although they were opened some months ago, I am not aware that a single cargo has yet been landed. If some of your shippers could see their way to open up a trade with us they would earn the gratitude of the promoters of the scheme, who have been rather roughly criticised for spending money on an undertaking which some say was doomed from the first to end in failure. Glasgow is the great shipping centre for Scotland, and it is there the cattle from Canada are landed. The intention is to bring them to Aberdeen direct to give local buyers a better selection, but it is doubtful if they could be brought to Aberdeen so cheaply as they are to Glasgow, where shippers have the chance of return cargoes, and besides, Glasgow is considered to offer the best market for all classes of stock of which shipments are generally composed. If the cattle could be as cheaply brought direct to Aberdeen—that is to say, cattle of a superior description, neat, fleshy, short-legged cattle, smaller in bone than many of your bees, I have no doubt they would find a capital outlet here, for the northern counties already absorb a very large number of Canadian bullocks, which have indeed all but driven the home-bred stock out of the "fat" sale rings.

That there is room for improvement upon the Canadian stock is very clear, from the higher price which the retail butchers give for home-bred bullocks—at least 5s. to 6s. per cwt. Keep your cattle nearer the

ground, less rumpy in appearance, and of better quality, and you will go far to remove the prejudice with which an Aberdeen man regards everything except his own native cattle, which he thinks carries the palm over the world, and probably he is not far wrong. The Canadian bullock has taken a very strong hold already in Scotland, which is about equivalent to admitting that he has many admirable qualities which commend him to Scotchmen. One of those, and it is a most potent one with Scotchmen, is his cheapness, and another is his vigorous, robust constitution, an element of immense importance to those engaged in the cattle trade, the want of which among Irish stock is likely to kill the cattle trade between that country and Scotland. The Canadian bullock has the reputation of being a large consumer, but when feeding stuffs are cheap this is not of much moment, and given rather better quality he is an animal that might be expected to pay for his food.

QUIDAM.

March 7, 1887.

Good Barns and Good Stock.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I was very much pleased with the plan of stock barn, which appeared in the December number of the JOURNAL. I think that barn architecture is something that ought to concern the farmers as well as the stockmen of the present day. In many parts of Ontario the old barns are too small, too unhandy, too dilapidated, and I may add, too unhealthy to meet the requirements of this progressive age. Good barns, with proper accommodation and suitable ventilation, would go a long way toward the prevention of disease, and the annihilation of the scrub, for who would like to feel proud of his barn, and at the same time ashamed of his cattle. The movement in the direction of improved barns is a good one, and any light thrown upon the subject will not only benefit the individual farmer, but will also add to the wealth and appearance of the country. If not too much trouble, I would like an accurate description of the manger, rack and water trough of the barn at "Riverside."

ALFRED E. KEFFER.
Concord, Ont., 7th March, 1887.

The *inside* measure of the mangers is 9 inches deep in rear and 8½ inches in front; 12 inches wide at bottom and 14½ inches at the top; material, 2 inch planks. They rest on the same level with the feet of the cattle, which is rather low.

The water troughs just outside of the manger are made of 1½ inch pine planks, except the cover which is inch pine matched, and has a slide in front of each beast, bevelled on the edges to suit the groove made for it in the cover of trough. This cover is also the slide into the manger, for cut feed, etc. The trough itself is (outside measure, but not including cover) 12 inches wide, 7 inches deep next manger, and 12 inches next passage. The lower part of cover is just the width of itself above the manger, and the upper part projects a little over the trough. The troughs should be coated with pitch at the joints inside, which should be spliced. The water enters the trough from a tap, which opens into a funnel in the lid, and escapes when required at the other end of the trough, through a grating into a sewer pipe which is laid under the floor.

The space between the top of the manger and the bottom of the rack is 16½ inches, to give opportunity for the cattle to drink, etc. The bottom piece of the rack is pine, 3 x 5 inches, and the top 3½ x 4½. The spars 1¼ inch maple, are 6½ inches from centre to centre (better 5½ inches) and stand upright in the line of the passage side of the manger. The height of rack from top to bottom scantling is 3 feet. The space for holding the hay is formed by boards, inclining from the bottom of the rack upwards and toward the passage, but about four inches lower at the top than the sparred part of the rack. This space is 23 inches wide at the top.

"We have taken your JOURNAL from its commencement, and think it the best stock paper published in Canada."—Messrs. Graham Bros., Ailsa Craig.

The "Glasgow" Stallion Show of Canada.

The first spring stallion show under the auspices of the Clydesdale Horse Association of Canada was held in the Haymarket Square, Toronto, on Wednesday, March 16th, and it was without any doubt a success.

The interest taken in Clydesdales by Canadians could be well realized by any onlooker who was acquainted fairly well with the agriculturists of this province. Looking about the ring he could see the many faces of the leading and best known tillers of the soil, from all parts of the province, and there were many from across the border, who have been taught to look on this little province as next to Scotland the home of the Clydes. And surely by the display of good horses forward on Wednesday it is the home of the Clydes, and a comfortable home, too, for there were no horses there that looked as if they ever wanted for anything or had undergone any hardship, with the exception of a few fresh arrivals that still show the effects of being tossed about in an ocean vessel.

To make the exhibition more satisfactory for all concerned, a judge was selected from the United States, and he made the awards himself. Mr. Galbraith, of Janesville, Wisconsin, was the gentleman, and if being raised among Clydes and descended from those raised in the same way, will make a person a horseman, Mr. Galbraith should be such an one, and a judge of Clydesdales in every sense of the term. Nevertheless we would have ventured to change some of his decisions if we were placed in a like position next day, and we believe it could have been done to the satisfaction of many about the ring.

The first class led before the experts was the class of aged stallions foaled before January, 1854, and this class consisted of 19 entries, with about 7 of them absent. After considerable examining and testing was gone through, several of the horses were drawn, and some of those that were supposed to be in the rear were at liberty to go to their stables. Glinns [372] (3655), a low-set, thick son of Druid (1120) was at last drawn as the successful horse. He was exhibited by Robert Beith & Co., Bowmanville, and imported by the same in 1886. We understand that he was sold for a long price to Mr. Thomas Colquhoun, of Mitchell, Ont.

Lucky Getter [400] (1483), imported 1886 by Messrs. Beattie and Torrance, was drawn for second place, and was the only horse shown by this firm, on account of their having sold Pickwick [399] (3885), and the other horses entered a few days before the show.

Grange [364] (317), imported 1886, by Graham Bros., Claremont, and exhibited by the importers, was placed third. He is a good horse and would by some have been placed at the top.

D. Annan's (Pickering) Laird o' Logie [447] (3755), was placed fourth. He is a nice horse, and was shown in better form than we have seen him before. He is since sold to John Fatterson, near Port Hope. Fifth place was given to R. Beith & Co., for their horse Roger [441] (4671), a tall, rangy horse, with good bone, also imported in 1886 by exhibitors.

In the class for three year-olds, Robert Beith & Co. were again successful in winning first position with Lord Borthwick [422] (4513), a thick, promising colt, imported 1886, and sired by Garnet Cross (1662)

Wm. Rennie got second with Richmond [338] (4666), a colt with some good points about him, and taken altogether, a worthy son of his noted sire, Springhill Darnley (2429). John Bell, L'Amoreaux, got third position with Campsie Lad [344] (4277), a

son of Old Times (579), and the colt that won at Toronto Industrial last fall. Robert Meikleham, with Middleton Laddie II., [385] (5218), was successful in winning fourth place. He was first at Guelph last fall, and has improved since that time, but the company here proved too good for him. We were not able to find who owned the successful horse for fifth place.

The class of colts coming two years old was the smallest and easiest to decide between, but the quality was good, and with the exception of a few just bred, they were in splendid condition. Graham Bros. were in this class successful with their beautiful son of Macgregor (1487), Macqueen [462] (5200), and this was certainly a clear first. John Hope, of Bow Park, was placed second with a colt not in the catalogue, the breeding of which we were not able to get; and Wm. Rennie was given third for his colt Barclay [337] (4828), a nice little colt, but not just now promising enough of size. Fourth and fifth places were taken by colts just imported by Prof. Smith, Veterinary College, Toronto. These were well bred colts, but we were unable to find which got fourth and which got fifth places.

On the whole the exhibition was a good one, and surpassed the expectations of the friends of the show; and taking this as a beginning, we may hope to see some splendid exhibitions in the near future in Toronto. R.

Ascertaining the Weight of Cattle by Measurement.

In answer to a recent inquiry we give the following rule: Take the girth, then measure the distance from the bone of the tail, or more properly the pin bone to the shoulder blade. Multiply the girth in feet by the distance between pin bone and shoulder blade, and multiply the product by 31. Example, an animal measures 7 ft. 5 in. in girth, and 5 ft. 6 in. in length. $7\frac{1}{2} \times 5\frac{1}{2} \times 31 = 1264$ lbs. When the animal measures more than 7 feet and less than 9 feet, the above equation will apply only. When it measures more than 5 feet and less than 7 feet, multiply the product of the girth and length by 23. When more than 3 feet and less than 5 feet, by 16, and when less than 3 feet multiply by 11.

A deduction of 1 lb. on 20 lbs. is made for half fattened cattle, also for cows that have had calves. It should be remembered this standard will give only an approximate weight. To ascertain the dead weight of cattle, take the girth behind the shoulder, square this number and multiply the product by the length from this point to the tail, and again by 3.33.

Saving Liquid Manure—Floor of Horse Stable.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I am about to build a barn with cattle stables under, and I am arranging to save the liquid manure; and I want to utilize this to the very best advantage. I have seen on the farm of Mr. Mulock, M. P. for North York, a large pit into which the liquid manure from the stable drains. This pit is walled round with stone, which extends perhaps four feet above the ground line, into which the bedding and excrement is put; and this appears to become thoroughly saturated with the liquid from below. If any of your readers have tried this plan, or know from actual experience what its merits or demerits are, will they kindly give their experience in an early number of the JOURNAL? I am also desirous of knowing what is the very best material for the floor of a horse stable. Of course cement is out of the question, and yet something that would not become saturated with the urine is very necessary for the health of the horses and economizing manure.

EXCELSIOR.

The Present Shorthorn Herd Book Standard.

The desire to retain the present Shorthorn herd-book standard is very general and pronounced. We have had an opportunity of forming a judgment in this matter not given to the general public. We have received several letters from places far and near, for which we could get no room, speaking strongly in favor of retaining the present standard, while we have received but one letter advocating the opposite view, that we have not published, and that one came late.

From a letter written by Mr. John Robinson, Sandfield P. O., Manitoulin, we quote the following: "Although I lost twelve head by the change of standard I would not lay the weight of one straw to change the standard back again so as to have my stock registered, if they are not worthy of it." It is very refreshing to hear men speak out thus, and Mr. Robinson is only one of a number who have expressed themselves similarly. It makes it very clear that the spirit of the ancient Briton still survives—country first, self second.

Feeding Oil Cake and Bran.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Can you tell us through the JOURNAL, whether it will pay to cook oilcake meal before feeding to calves three months old? Also, in feeding bran to milch cows, will it pay better to wet the bran before feeding, or should it be fed dry?

E. J. HUTCHISON.

Luton, Ont.

We do not favor the idea of cooking oilcake for calves of any age. The simplest way of feeding them when raised by hand, is to put a little ground linseed into equal parts of ground oats and bran, and let them have all of this they will eat. The quantity of the linseed used is to be regulated by its effects on digestion. The best way, also, of feeding bran or any kind of meal is to mix it with cut hay or straw, or chaff. It may then be fed dry or after fermentation of a few hours, induced by damping the mixture. If fed direct it will likely produce a larger quantity of milk when given in the form of a mash, but it is a troublesome process.—ED.

Feeding Colts and Working Horses.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Would some of the many experienced farmers and horse breeders of the Dominion kindly give through the columns of the JOURNAL what they consider the proper feed and treatment of colts intended for farm work, from weaning until four years old? Also their views on the proper feed and treatment of work horses? An article or series of articles on the subject would no doubt be read with much interest by most of the readers of the JOURNAL, as well as by

W. H. M.

Excellent Advice.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Continue to wage war on the scrub, as he has had his sway long enough, and it is time every one was alive to the fact. But there are too many who are content to do as their forefathers did.

W. R. O'BRIEN.

Port Robinson, Ont.

Books on General Farming.

In answer to an inquiry of the past, we may cite the following farm books as good for Canadian readers: The Canadian Farmer's Manual (Whitcombe); Science in Farming (Thompson); Elements of Agriculture (Waring); Catechism of Agricultural Chemistry (Johnston), and Farmer's Primer.

Veterinary.

Precautionary Hints to Stockowners.

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

(Continued from February.)

The economical, prudent, successful breeder has to look well ahead in his efforts to maintain a healthy standard amongst his stock. Much of the benefit derivable from the most assiduous and intelligent management is rendered fruitless if proper attention is not paid in selecting breeding animals, so that they will not transmit to their progeny a predisposition to disease.

Evidence of sound constitution is needed in all animals that are to be bred, but in the horse on account of the different kind of return that he is to give to his owner when compared with other animals, in the shape of work, necessitates that wind and limb receive attention. There can be no possible doubt about the hereditary nature of the defects of wind and limb. It does not follow that because either a sire or dam are defective from some transmissible shortcoming, all their young will be similarly affected, but experience teaches us that a per centage, and often a large one, will be victims, and to an extent sufficient to very materially prejudice profitable breeding.

Hereditary unsoundness, or a predisposition to unsoundness, may be divided into two classes. First of all, we may point out the existence of an inherent tendency manifested in some stallions and mares to the development of disease, as for instance, roaring or bone diseases. A horse may develop a spavin without having been subjected to any extraordinary or even ordinary exciting causes, and there may be none of the frequently existing malformations to account for it; yet he has a spavin himself and many of his get have them. In the face of such evidence we are forced to admit that there is some obscure tendency existing in some animals to the development of such defects, but that it is impossible without knowing the family history, if the disease has not already manifested itself, to say that such a tendency exists. This might be used as a good argument in favor of only using pure bred sires, for if they are sound, and as they have greater ability to transmit their qualities with certainty, they would be much less likely than a mongrel, made up as he is from incongruous sources, to breed back, as it is termed, and pass to his young some defects that he does not himself show evidence of possessing.

In addition to this obscure tendency to the development of unsoundnesses, there are faults of formation that render horses prone to diseases of the limbs. Granting this we can readily understand how essential it is to a breeder to be capable of judging points, so that he can select judiciously an animal that is mechanically constructed, so as to show no weakness or liability to the development of disease. It is not only necessary that a horse's limbs be put together properly, but it is further essential that the material of which they are composed should be good. Evidence of a poor texture of bone is readily noticeable as indicated by roundness of the canons, which is often associated with small, round joints. No doubt coarsely bred horses must of necessity show greater roundness of the canons and consequently not as good quality of texture of bone as the more highly organized or finely bred animals; but still, with them the same rule holds good, and the nearer the canons approach flatness the more perfect they are, and their texture can be safely looked upon as an index to that of the whole bony framework. By good texture of bone is meant the denseness of that tissue, or the absence of sponginess.

If the specific gravity of the bone of the thoroughbred is compared with that of the cart horse it will be found that that of the former is considerably higher, which simply means that it is a more densely knit structure.

We would naturally infer that dense bone is more durable, or more capable of withstanding inflammatory diseases than that of a spongy character is, and such is found to be the case from practical observation. In performing work a horse's legs are subjected to a considerable amount of jarring or concussion, and the faster the work performed and the harder the roads, the more are its effects experienced. It is the circulation of the blood that is affected by concussion, and it is that of porous bone that is most susceptible to such influence. There is no doubt about the necessity, then, of having an eye to quality of bone in breeding sires and dams amongst horses, if we wish to reduce the tendency to those very troublesome ailments called spavin, ringbone and splint, and which in most cases, particularly of the two former diseases, reduce a horse's value by one third in the market and often either temporarily or permanently compromise his usefulness.

(To be Continued.)

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

A Case of Milk Fever.

SIR,—Allow me to seek advice through the columns of your valuable JOURNAL. We had a young grade cow, three years old, which calved fourteen days ago. When we went to feed her she appeared to be loth to rise, and seemed to lose the use of her limbs. However, she got up, and appeared to fawn very much one of her hind legs. She seemed to reel and stagger and lie down again. We gave her a little gruel, molasses and ginger, and used an injection of warm water and salt, which had the desired effect. Her droppings appeared natural enough. We kept her well clothed to keep in the animal heat, and she appeared to rally a little, and during the afternoon she ate a little hay, grain, roots and linseed, her usual diet. About twelve hours after she took ill she raised her head suddenly and ceased to breathe. On examination after death she appeared black and bruised on the far hind quarter. Her heart was black as ink and very much swollen. Could it be anthrax, and what should we do to prevent it?

DONALD MCKAY, N. S.

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

Your cow was evidently suffering from milk-fever (parturient apoplexy). I gave a description of the nature of this disease, etc., last spring, in the columns of the JOURNAL. It doesn't often occur after the first calf. Although something may be done in the way of prevention, it does not seem possible to always ward off this disease in all cases. It hardly ever occurs except in pretty profuse milkers, and there is no doubt that full-bloodedness is an exciting cause of the trouble; consequently it is but rational to limit the diet for a week or two prior to calving, to almost meagre fare. We would also recommend only allowing small quantities of water immediately before, and for a day or two after calving. A dose of purgative medicine, consisting of a pound and a half of Epsom salts properly dissolved, should be given directly after calving.

The Farm.

"I CAN'T see how farmers can possibly keep abreast of the times without reading." So writes a valued correspondent from Hantsport, N. S. They cannot do so without reading, no more than the man who always stays at home will keep abreast of the usages and customs of his time. The day was when a majority of farmers did not read much on the subject of their calling, because much was not then written upon it. But those days are buried—"dust to dust, ashes to ashes," never to rise again. At that time all had an equal chance, because each could

draw only from his own experience and that of his neighbors, but, now, in addition to this, the reader of farm literature may draw from the experience of numbers in all parts of the country. Tell me not that the former has the shadow of a chance in competing with the latter, for I do not believe it. A man who draws information from a circle ten miles in diameter has no chance in competing with one who gets the same from the experience of all the continents.

"SEEING that the world's supplies depend almost entirely on the world's crops, farming must always rank as the most essential of human pursuits." So writes W. Saunders, director of the central experimental station at Ottawa. He justly concludes that it should therefore be aided and encouraged to the utmost. If it is the most essential of human pursuits, it should first receive the fostering care of governments, not last. Manufactures are important and should be fostered, too, but never at the expense of farming. While we would deprecate any waste of government funds on the various branches of farming, we strongly favor any grants that may be made that will enable them to be the more efficiently carried on. See what grand results have arisen from the very moderate grant made toward the development of the cheese industry in Canada. If but a fragment of the money squandered over elections and devoted to the subsidizing of friends were used in promoting the true interests of agriculture, how fair and beautiful and grand the tree thereof would become!

DR. HARKNESS, president of the Farmers' Institute of the county of Dundas, stated at a meeting held at Morrisburg, in February, that he believed more manure was wasted annually in the county of Dundas than would pay the interest on all the mortgages held in the county. This was putting it, we believe, very mildly. Mr. D. M. McPherson, of Lancaster, estimates the loss at \$10 for each matured cattle beast per year, which is probably within the mark. Why do the farmers of Ontario allow so great a waste? Some of them do not, but many of them do. The remedy is largely if not altogether in their own hands. Those who cannot do better should get it upon the lands at the earliest possible moment, and plow it under or cultivate it. Whatever is done with it, it must not be allowed to run away in the water-courses, nor give of its substance to the air throughout the summer, after every shower, nor to have its substance burned out of it by fire fang. The very first leak on the farm to be stopped is that from the manure heap.

Swindlers.

When we think of the success of the troops of knaves who go up and down the country preying on the farmers, we scarcely know whether to be sympathetic or angry. That these finished villains usually choose the unsuspecting farmer as their victim, proves (1) that he takes their deceitful bait more readily than men of other callings; (2) that he carries a more tempting fleece, and (3) that in common with the race he is not free from avarice. On this latter string the heartless swindler plays his most captivating tunes, and the way is opened up to him by the unsuspecting nature of the farmer.

A brace of swindlers are at present engaged in scouring the counties of Ontario, picking up spoil in the shape of notes taken from the farmers for seed wheat which they are selling at the rate of \$15 per bushel. They give a bond to take twice as much of the first crop from the farmer at \$10 a bushel, and the poor, foolish farmers are greedily catching at the

bait, and those of them which they have caught they are using in turn as bait to catch others, by referring to sales made to them, and in other ways. In some townships they have already secured plunder to the extent of \$3,000 in farmers' notes, and like the bloodhound that will not turn aside, they are on the scent of others. They are garnishing their villainy by using the names of respectable farmers whom they distinctly designate, representing them as leading officers in their company.

Now in all coolness we desire to ask what guarantee have the farmers that the wheat sent shall be of the same kind as the sample shown, which consists of about $\frac{1}{3}$ of a teacupful kept in a bottle? Where is the guarantee that the soulless men will fulfil the terms of their bond? The farmers, once their name is committed to paper, must pay that money to the last farthing when those notes mature, but what assurance have they that the organized robbers will redeem their bonds? Where is the assurance that the so-called new variety of wheat is *new*, or that it is one whit better than the commonest variety in the country for milling purposes, or, indeed, that they will get the same variety as the sample at all?

Where is the assurance that the wheat will ever become popular with the farmers? It may prove itself to be a fair variety in a land where as yet it is untried, but it may not, and, like the Bohemian oats of regretful days, it may turn out inferior to ordinary wheat, both in the quantity and quality of the yield.

Oh, farmers of the Dominion, why do ye allow yourselves to be plundered in this and in one hundred other ways? It is a singular feature of Canadian farm life that men who will not give one dollar to the support of an agricultural paper which would put them on their guard in reference to the nefarious designs of those wandering plunderers, will pay \$200 to \$300 to learn the lesson in another way. But so, many will have it, and we can only say that we regret exceedingly that such is the case.

Those men are not only allowed to plunder by regular system, but they are usually entertained *free* by the very men they are plundering. We hope that farmers will never cease to be the most hospitable class in the land, but we do hope that their hospitality will be reserved for those worthy of it, and not for banded pilferers.

On no account allow those men to open their budget. The very mention of seed wheat at \$15 per bushel should be enough. It is an unhealthy way of doing business in any case, and a majority of those who tamper with the serpent are sure to have it bite them with a most poisonous bite. Do not even take time to listen to the story of the plotters. And if they persist in pressing the tale of their perfidious business upon you, point them to the highway. If you warm them by the fire of your hospitality they will fasten on your arm when they become a little thawed, and give you a deadly sting. Have nothing at all to do with such men. Benevolent Michiganders are not the parties to introduce seed wheat into Canada.

Treatment of Forest Tree Seeds.

CENTRAL EXPERIMENTAL FARM PUBLICATION, No. 1.

Many of the tree seeds which mature early are better sown soon after they are gathered. This applies especially to the several varieties of elm and to the soft maple. The hard maple, box elder and ash seeds, keep well over winter, provided they are stored in a cool place and not allowed to get too dry. Acorns, nuts, and stone fruits are most successfully planted in the autumn, but if kept over winter should be

mixed with moist sand and exposed to frost and planted as early as possible in the spring, taking care that they are at no time left in masses under conditions so as to heat. Many failures with seed arise from not sowing it in partial shade. If seeds are exposed alternately to hot sunshine and cold while they are swelling, they will frequently rot before they appear above the surface. The requisite shade may be obtained by the use of brushwood, or a light layer of corn stalks or straw, removing this as soon as the seedlings are up and fairly established. Many nurserymen enclose their seed-beds with wooden frames, on which are laid light frames made of one-inch strips and covered with cotton or muslin. These are convenient, and can be provided at small cost. Seedlings of evergreen trees grow slowly, and require to be shaded and kept moist during hot weather all through the first year of their growth, and sometimes longer. Seeds take some time to swell their coats after being placed in the ground; hence, if planted dry, they should be sown as soon as soil can be had to cover them. Germination may be hastened, especially with seeds of a hard texture, by pouring hot water on them and allowing them to soak for twenty-four hours before sowing.

Seeds sometimes fail to grow from being planted too deep. The larger nuts and acorns should be covered with soil about as deep as the seed is thick; other smaller seeds should not be covered with more than half an inch of mellow soil, pressed gently with the back of a spade, so as to make the earth firm around them, and when the young seedlings appear they should be carefully weeded. Occasionally seeds will remain in the ground until the following season without germinating. Should any fail to grow by the time spring is over, and on examination the kernels are found sound, the seed-beds should be kept weeded and shaded until the next season.

Ottawa.

The Central Experimental Farm, Ottawa.

It will be remembered by our readers that an act passed by the Dominion legislature of 1886 provided for the establishment of an Experimental Farm for the Provinces of Ontario and Quebec jointly, one for the Maritime Provinces jointly, one for the Province of Manitoba, one for the Northwest territories, and one for British Columbia.

The work to be undertaken at the different stations is thus set forth in the Act:

(a) Conduct researches and verify experiments designed to test the relative value for all purposes of different breeds of stock, and their adaptability to the varying climatic or other conditions which prevail in the several provinces and in the Northwest Territories.

(b) Examine into the economic questions involved in the production of butter and cheese.

(c) Test the merits, hardiness and adaptability of new or untried varieties of wheat or other cereals, and of field crops, grasses and forage plants, fruits, vegetables, plants and trees, and disseminate among persons engaged in farming, gardening or fruit-growing, upon such conditions as are prescribed by the Minister, samples of the surplus of such products as are considered to be especially worthy of introduction;

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

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

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

(g) Examine into the diseases to which cultivated plants and trees are subject, and also into the ravages of destructive insects, and ascertain and test the most

useful preventives and remedies to be used in each case.

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

(i) Ascertain the vitality and purity of agricultural seeds; and

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

The experiments in each of the provinces it is wisely arranged will be more provincial in their character than otherwise—that is, they will have a more direct reference to the requirements of each province or group of provinces, although results advantageous in many ways to the whole country cannot but be reaped.

The site chosen for the Central Experimental Farm is within three miles of Ottawa. It consists of 460 acres of land, and very properly possesses a variety of soil.

Collections of grain and seeds have already arrived from the Royal Gardens at Kew, England, the Imperial Botanic Garden at St. Petersburg, Russia, and from the Imperial College of Agriculture at Japan, and purchases of seed grain for purposes of experiment have been made in Europe and the various countries of North America. A large number of fruit and forest trees, vines and shrubs, and tuberous roots are also being obtained from many countries. A large share of attention is being given to the planting of forest trees, also for purposes of experiment.

The good that will be accomplished through the medium of these stations to their respective provinces if properly conducted, will be beyond all estimate, but too much care cannot be had in the selection of those who shall preside over the work. They must be men of intelligence, research, patience, enthusiasm, deeply imbued with the love of experiment and intensely patriotic. Neither creed, nor politics, nor anything else should weigh in the choice of these men *save fitness for the work*.

The Government have certainly been fortunate in their choice of director of this great work, W. Saunders, F. R. S. C., etc., and we hope he may long be spared to prosecute it.

It may be truly stated that all knowledge in agriculture is the result of experiment, and the statement is quite as safe that all progress in the future will emanate from the same source. It is equally clear that a well-managed school of experiment will accomplish much more than can be accomplished by isolated individual effort, and hence a most powerful argument in favor of experimental stations.

It should be remembered, however, by those conducting experiments, that results cannot be given out with too much *caution*. A result that has not been certainly established may prove misleading and harmful, rather than otherwise.

Report of the Judges on Prize Farms for 1886.

(Continued from January.)

HUNTINGFORD.

Second Prize Sweepstakes Farm.

At four o'clock p.m., we took train for Woodstock. Were met by Mr. Wm. Donaldson, of South Zorra, and conveyed to "Huntingford," his 300 acre farm, accompanied by the late Mr. Henry Parker, President of the Association; Mr. Joseph L. Peers, President of North Riding Agricultural Society, of North Oxford, and John R. Craig, Secretary and Treasurer of the same. A gentle rain, grateful to everybody, save farm judges at such a season, where the sward is long everywhere save in close shaven lawns, fell most of the day, and indeed at short intervals during most of the week, detracting a good deal from the comfort of the work in hand. Huntingford lies five miles northward

from Woodstock, and the drive thither is very pretty, leading as it does through Vansittart Avenue, past the cemetery of Woodstock's sleeping dead, containing the monument to young MacKenzie, who, fighting, fell at Ridgeway; over the Port Dover and Lake Huron and Credit Valley railways; and leaving the Thames coming down from Innerkip, it continues through a country of easy undulations, with now a stream where water-cresses bloom, and here a thrifty steading with prosperous surroundings, and there a remnant of the ancient forest, the heavy trunks of which speak of a strong soil.

Huntingford lies in the shape of an L, 200 acres of which extend from the gravel road to the concession in the rear, the the third hundred fronting on the gravel road. The dwelling of white brick, about 50 rods from the road, 50 x 72 feet and two stories high, strong and ample in its accommodations, with an air of quiet repose, as it sits embowered in trees of nature's planting, is approached by a wide avenue, containing about three acres, and planted on either hand (not thickly) with young trees. This passes the orchard on the right, and the vegetable garden on the left, both well kept. The way goes on through the oval-shaped front yard enclosure, into a magnificent shading of beech and maple trees, which, with their umbrageous tops and faultless symmetry, are the peculiar glory of Huntingford. How magnificently grand would our country appear were the steadings thus embowered in woodland, white in winter, and green in summer, and how many are the advantages of having so much of shade about our surroundings, drinking up the noxious carbonic exhalations and providing grateful shade for man and beast during the scorching heat of summer. In those leafy surroundings are some eight acres, not disfigured by fence or paling, not rendered hideous by a dense growth of underwood, but containing the trees of the wild wood, such as had been spared by the woodman's axe, each for its beauty, and growing sufficiently far apart to give each other room. On the long northern declivity, which, in the rear of the house, goes down to meet the north branch of the Thames, are grazing grounds, and down in the valley itself, beyond, rises a high incline of the property of the late Judge McQueen, clad with magnificent forest trees, which lift their pyramidal-shaped heads one above another in a glorious succession. The thirty acres of bush in the main lot, strongly timbered with birch, maple and rock elm, mainly, was thriving, and the other plot, fifteen acres on the south-west corner of the other lot, grew thick with black ash, making room for a few oaks and elms. The fields average about twelve acres, and their position will be readily seen from the plan.

The soil is a clay loam, inclined in some high parts to gravel, and rests on a sub soil of clay, not very retentive near the surface, and under-drained in all the wet parts in every field, with tiles laid from two to three feet deep in the laterals, and three to four in the mains. One field of 10 acres is wholly drained, the drains being 40 feet apart and three feet deep, and in making out the drains Mr. Donaldson follows the contour of the land. The obstacles to cultivation are well removed, the stones lying where they can provoke the ill-temper of no cultivator, in large heaps at the foot of the hills.

One half of the fences along the front consist of new barbed wire, three strands, six inch board at top of posts, and eight-inch at bottom, and a nicely rounded mound underneath, wide enough to prevent washing away—not that ghastly furrow or two thrown up by the plough and left in its hideousness, which some men dignify with the name of a bank; the other portion along the road is straight board, picketing around orchard, garden and yard, and strong high stake fences with stake and wire at the corners on the rest of the farm.

The stock of this farm are a long way beyond the average; the horses are of the Clyde type, Canadian bred, from pure bred sires; eight working horses are kept, and one yoke of oxen. There are 50 head of cattle, of which 28 head are strong Bates Shorthorns, of good milking strains; the dams of these raise their own calves. From 15 to 20 head of cattle are fattened every year, and this in turn, as it always does, has fattened the farm, which, in turn, has fattened its owners' bank account. There were 40 matured Shrop sheep, all resting on an imported foundation, and 32 lambs—the shearing rams were just splendid.

The barns and outbuildings, all in form of a quadrangle enclosing a square, are very complete of the kind. The barn yard is nearly all stoned

underneath (small stones), and gravelled on the top, and it is a large one. This work has been done from year to year as opportunity offered, the true system where herculean labors are to be done on the farm with a due regard to economy; a cistern in the yard has a capacity of 288 gallons. Inside the buildings everything is done with an eye to convenience and utility. The floors of the stables are cobble stone; the water troughs are breast high; the horse stable is simply a model, with its high ceiling and strong stalls, and well laid cobblestone floor; and the implements of the farm were very complete and well kept.

The farm was, on the whole, very clean, and we endeavored, in making the estimate of this, to bear in mind that it was a 300 acre farm, the order was perfect and the economy as well, and the water supply from wells and running streams was equal to the demands upon it. The roots are used as the cleaning crop, and a magnificent plot they were, as was also the plot of corn used for feed and that for soiling.

The area of crops this year was—hay, 40 acres; barley, 12; winter wheat, 23; spring wheat, 3; oats, 30; peas, 13; carrots, ½; turnips, 7; mangolds, 3; corn, 3; corn for soiling, 3, and potatoes, ¼. The averages per acre for three years past are—hay, 2½ tons; oats, 50 bushels; peas, 30; fall wheat, 25; barley, 40; and Mr. Donaldson is careful to keep abundant pastures for the stock.

The method of tillage is in substance as follows: After roots follow with barley, and sow to hay, using 4 lbs. timothy, 8 lbs. small red clover and 1 lb. alsike to the acre. Mow two years, plough sod generally in the spring and sow with peas or oats; follow peas with fall wheat, ploughing in the manure; the part of wheat ground not seeded is tilled with oats, and then roots. The manure is piled in the yard in the spring, ploughed in for roots in the fall, the balance being ploughed in for wheat. Great care is taken of the manure at Huntingford.

Mr. Donaldson has done well by Huntingford, and Huntingford has done well for him. What it gave him in the form of produce he gave it back again, except the products of what and meat. Where obstacles were in the way of cultivation he took them out, and with the labor of the farm; where stones were troublesome, he piled them, where places were wet, he drained them and where buildings were wanted, he built them; doing as much of this as was proper with home labor, and by a steady progression which has extended over every year of his farm life, he is always improving the place, ever bringing it nearer to perfection. He is what one of your judges is pleased to term "an all round man"—that is, we suppose, one strong in every department. It would be difficult indeed to lay your finger on weak points in his management. In buildings, economy, stock, management of manure, general order, cost of production and profits, all leading essentials, he is very strong, and in no point is he weak; yet the lack of absolute perfection in private roads, cleanliness of cultivation (some thistles still fighting for existence), and in two or three other features, so reduced the aggregate of marks as to constitute him second, although almost first in the great farm contest; and a second visit made on the 30th of August, but confirmed this conclusion.

Mr. Donaldson purchased Huntingford in 1857, and has lived on it since 1862, making it what it is by the strength of his own right arm, well sustained by the co-operation of assistance from within the house, without which great achievement in farm management is exceedingly difficult. One of the most interesting spots on the farm is the quaint old church, and one of the most sacred, the resting place of the sleepers that surrounds it.

(To be continued.)

Binders.

The season is at hand when those who purpose investing in farm machinery should do so, and get the implement home and ready for work before it is wanted to be used. Of all the labor-saving machines of modern days, the binder is perhaps most worthy of the name, "The Farmer's Friend." It has practically solved the labor question for the farmer at that busy season when it is used, and renders the employer quite as independent as the employed. We would not say to every one who has a fairly good reaper, put it away and invest in a binder, but some who

have large farms may do so with a profit. Nay, we rather advise, take every care of your old reaper, for it will be used in some instances where binders cannot be in certain lines of farming, as in the cutting of orchards and of grounds not free from certain obstructions, as stumps, etc., so that when the time comes that you feel you cannot do without a binder, you may still find useful work for the old reaper.

The great drop in the price this year brings them within the reach of every one having use for one. They can be bought as cheaply now as reapers could years ago, and the fierce competition for public favor is a pretty sure guarantee to the buyer that he will get a fairly good article. Farmers have great reason to be thankful that so many persons have gone into the manufacture of binders, as this has brought the prices down to a very reasonable sum.

Every manufacturer of binders claims that he has the best, and we have no doubt that a majority of them are good. From our own experience we can only speak of the "Little Maxwell," manufactured by David Maxwell, Paris, Ont., which last year cut over seventy acres on our farm without twenty-five cents having been paid for breakages, although it was handled solely by a lad unaided, but fifteen years old. The whole was done by one span of horses, although in some instances the grain was considerably lodged. The claim for lightness of draught that Mr. Maxwell puts forth for this machine (see advertisement) is sustained by the uniform testimony of those who have used it.

If the manufacturers continue to put out first-class binders at the present moderate prices, the farmers can well afford to make a banquet in their honor, as they celebrate the next glad harvest home.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL. What Varieties of Grain Shall we Sow? BY THOMAS ELMES, PRINCETON, ONT.

There are times when this very important question has particular weight attached to it. Perhaps in no part of our past history has this question been of such vital importance as at the present. From every part of the province we hear repeatedly of heavy losses by rust, blight, mildew, smut, insects, and severity of our seasons. Taking advantage of this, we find our country overrun by oily-tongued gentry, continually trying to delude the farming community by offering for sale some old worthless variety of seed grain under a new name, and at fabulous prices. If these swindlers were to offer grains for nothing which have not been tested by responsible parties in our immediate section, surely none but a simpleton would be persuaded to invest, and run the chance of losing his crop, use of land and labor connected with putting it in. But we still find dupes ready to be swindled by the glowing statements made, and mourn at the last for their simplicity. It was intended that our Experimental Farm at Guelph would experiment in the different kinds of grain, and report to us for our future guidance, but we find it has failed to give us anything of value in this particular. In consideration of this, and the heavy loss sustained annually by failure of crops through sowing old worn-out varieties of grain, those varieties not suited to our climate and soils, I thought I might be pardoned if I should give the result of my experience in grains to the readers of the JOURNAL during the few past seasons, and enumerate a few of those which, according to my repeated tests, are best suited to our present requirements.

I have been experimenting in grain for several years. This past season I tested 170 distinct varieties of wheat, barley, oats and peas, which were exhibited in the straw at Toronto and Provincial Exhibitions last autumn. The exhibit (you will pardon me for saying it) was pronounced the best ever shown in the province in that line, and was awarded the medals accordingly. The method adopted is this: I obtain small quantities of the leading varieties of grain from different countries, as well as all the new varieties procurable in our Dominion. These are sown side by side at the same time on the same soil, receiving the

same cultivation, and during their growth I mark well their individual habits. Those likely to be a success are again sown in larger quantity the second season, and if still successful, in yet larger quantity the third. By this method it will be seen we may arrive at something useful for our future guidance in our selection of seed grain. Before beginning to give a few results of my experiments, I wish it to be distinctly understood I have no interest in the grains I may recommend, nor have I any on hand for sale, but many of them may be purchased of the leading seedsmen.

We will only mention those which may be purchased at a reasonable price, and have best stood the test the past two seasons. It is useless for me to say anything in reference to fall crop at this season of the year, but will begin with spring wheat, of which I tested thirty-eight varieties. Before commencing to particularize, I would say, we are all aware of the vast amount of loss we have sustained by rust and blight of this grain, consequently I shall be very cautious what I recommend, and shall only mention those which, according to my repeated tests are able to resist its ravages. I find there is a great difference in the texture of the straw to resist rust and blight. Some varieties have the sap vessels very much exposed to the atmosphere, and fall an easy prey to rust, while others have the vessels well protected by the fibre, and successfully resist the trying ordeal through which they may have to pass. Of necessity many of the thirty-eight varieties tested were a failure, while some were middling, and a few excellent.

The first on the list is comparatively an old variety, viz., the Rio Grande, which weighed 64 lbs. per bushel; next, Italian, 62 lbs.; Wild Goose, 62 lbs.; Silver Chaff, 60 lbs.; McCarling, 60 lbs.; Pearl, 60 lbs.; and then follows a host of others, dwindling down to 38 lbs. per bushel, the names of which I will not mention. I am persuaded if the above mentioned varieties are sown in suitable ground, namely, rather rich clay loam, not later than the 20th of April (before, if possible), we can still raise spring wheat profitably. Prof. Brown, of the Model Farm, told us some time since, he thought the red Fife could be brought from the far northeast or northwest and be made a success, but I beg leave to differ with him, after having given it a thorough test. Its vital powers are exhausted in our climate, and cannot be recovered. Rust is sure to overtake it.

We will now take up the important question of barley. Of this I tested 20 varieties, 7 kinds six-rowed, the balance two-rowed. I assign for first place to six-rowed, Imperial. It is a heavy grain. Mine weighed 55 lbs. per bushel, of a bright color, good stiff straw; beards not strong, rather drooping, shedding the rain and dew well, which is the secret of bright barley. I believe this is the coming barley for us, and can now be bought of some of the seedsmen. The next is Sovereign, six-rowed, a new barley of great promise. Next, Peerless, six-rowed. I have given the Mensury the grand bounce after three years test, as it is inclined to be a light weighing grain, and one of the worst to color I have ever raised, as the beards stand stiff and straight, and are so broad that they convey all the rain and dew directly to the berry. For feeding purposes none are better than Russian, six-rowed, closely followed by Empress, two-rowed; Golden Mellow and Chevalier. My experience has been to sow barley as soon as the ground is warmed a little, and as near the first of May as possible.

We will now pass to oats. I give first place to Early Blossom, 45 lbs. per bushel; nearly rust-proof; Egyptian, 43 lbs., sure crop. American Triumph, 42 lbs., good yielder. English, 40 lbs., good yielder, but inclined to shell if allowed to ripen. Black Champion, 38 lbs., good yielder, but should not be sown when rust is prevalent. Black Tartarian, 38 lbs., a good oat, heavy yielder, but inclined to rust if season is favorable for this. Oats cannot be sown too early, providing the soil is decently dry, as early sown always produce stiff, bright straw, and a much heavier grain than those sown later.

Peas. Fortunately the bug is leaving us, and we can again turn our attention to their cultivation. I find the Partridge or Grey a good variety for yield, if intended for feed; but the color is against them for sale, as is also Prussian Blue. But for a general purpose pea, perhaps none excels the Golden Vine. I found the Egyptian Mummy a really good yielder and a fine grain, and consider it has a bright future, but at present the prices are against many being sown.

In conclusion, I would say I have a large number

of varieties of fall wheat in experiment, and if they come through all right will report for the benefit of my brother farmers as soon as possible after harvest. I believe this is the only true way to arrive at what shall be best for the future in this very important branch of agriculture.

Preserving the Forests

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—On looking over the last number of your valuable JOURNAL, my attention was drawn to an article headed "A Curious Fallacy." The writer says he was driving in company with well-to-do farmers in Oxford county, men who knew what they were talking about, and then goes on to show that they were all wrong, that the land which they placed as worth \$20 per acre was in reality worth \$60. If the only argument in favor of preserving our forests was to get the greatest number of dollars out of them at the most convenient season, then I would have to concede the writer was to a certain extent right, but the importance of saving them for the sake of their influence on navigable streams and climatic influences is such that but little has as yet been said regarding that which the farmer has at stake in their preservation. Yet all friends of forestry felt that it was a step in the right direction when the State forests in France were put in care of the department of agriculture. Providence has joined the two interests, and men should never cast them asunder. Commerce and manufactures, although closely related, are only sisters as it were of Sylvia. But farming and forestry are as man and wife, one is the complement of the other.

Although forests do not increase the annual rainfall, no doubt they regulate and distribute it. Moderate frequent showers are what the farmer needs. Excessive rain or snow followed by corresponding drouth is what he dreads. Dear lumber means increased cost in everything we use, and in the end may become a great cross, therefore leave the forests standing, for every day increases their value. Even poplars or "white trash," as "Contributor" calls them, is now worth \$5 per cord at the pulp mills.

He placed hardwood as of little value except for cordwood, and thought it would not increase in value, owing to its coming into competition with coal. But I hold that a piece of hardwood bush, if devoted to the manufacture of maple syrup, will pay as well as any other part of the farm. There are thousands of acres of rocky land now cleared that would bring in a far greater revenue if clothed with its original forest. To illustrate. There is a farm of 200 acres in this township (Russell) owned by a shrewd, far-seeing Scotchman, all high land, and it grew hardwood. One half was cleared and the balance left. Not a tree was allowed to be cut for upwards of forty years. The cleared land of this farm (in other hands now), has become so poor that it will only raise tobacco with profit, while the 3,600 trees tapped on the other half, gives a net gain of \$1,000 annually. Then there is the indirect gain caused by the increased value of the timber. By all means, then, preserve our forests and plant out more.

D. McDUGALL.

Russell Co., Ont.

Junction Pipes and Curved Tiles.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

Thos. R. Merritt, of St. Catharines, asks in a previous issue, where "junction pipes and curved tiles" are made. These are not necessary. Drains should not have curves, and laterals should be joined by cutting a hole with a sharp tool. The discharge should be from the lateral into the top of the main. See agricultural commission report, p. 393. "Size of and depth of drains."

F. MALCOLM.

Inniskip, March 9th, 1887.

Although curved pipes are not used ordinarily, in some instances they might be necessary. Waring, in his latest work on drainage, rather favors the use of junction tiles to the method referred to by Mr. Malcolm.—ETI.

Exterminating Wild Oats.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will some of your numerous intelligent readers publish in the JOURNAL the best means of exterminating wild oats, and oblige, INQUIRER.

The Dairy.

MILK, as is well known, is one of the most delicate substances to handle that engages the farmer's attention. Any impure odors that may be floating about, it arrests, which inoculates the milk with a taint, and this in time the cheese and butter. Too much care cannot be exercised in keeping those odors entirely away from the milk yard or stable. The stable floors cannot be kept too clean, nor can too much attention be given to the performing of the milking in a very cleanly way. Indeed, so important is cleanliness relating to the dairyman, that it may be said to be the first chapter of his gospel, for no matter what the amount of product he turns out, it is not of much value to him or to any one else, if it is tainted in any way.

DAIRYMEN cannot give too much attention to the right rearing of their calves, if the business is to continue indefinitely and to prosper. Those that come early are far the best to keep, as late spring calves do not develop so well the following winter. Calves can be raised very well on skim-milk after they are two weeks old, if they get some linseed meal to supply the want of the cream withheld. In no case should the skim-milk or the whey fed to them be sour. It is more profitable, too, to have the cows come in early, and as butter dairying extends, the practice of having them calve in the fall will become far more general. In view of the rapid extension of butter-dairying, too much attention cannot be given to the rearing of calves in the way most likely to induce the development of the best milking qualities, nor can too much attention be given in the selection of the dams and sires to breed from.

Ayrshires as Milkers.

Mr. Jas. Drummond, of Petite Cote, near Montreal, has kept milk records of his herd since 1st March 1886. The milk is weighed as soon as drawn from the cow and a note made of the weight at once. The following is the result from 13 cows:

Name	Herd Book No.	Age of Cow	When Calved.	No of days milked to Dec. 31.	No. of lbs. of milk.	Per cent. Cream.
Viola	3822	4	4 Jan.	238	5235	15
Imp	2807	5	5 Feb.	308	5875	15
Maud	2250	9	1 March	294	6007	14
Flora	1211	10	5 March	210	5681	15
Ida	1181	11	12 March	301	7257	16
Effie	579	14	17 March	294	8650	17
Juno	1214	10	1 April	252	8045	17
Mary	3613	3	1 August	147	4648	15
Rud	2228	10	16 August	140	4545	16
Victoria	2931	5	18 August	140	4740	14
Maggie	3627	5	19 August	140	4208	17

This table gives an average of 5844 pounds of milk for each cow, for 214 days' milking, which is a creditable showing for so large a number of cows kept for milk production. There is also a marked uniformity in the percentage of cream obtained.

Last summer, the grass being short, Mr. Drummond fed those cows 2 lbs. of ground meal per day, each evening.

In winter they got long hay twice a day, and in addition 5 lbs. meal, 6 lbs. bran and 3 lbs. cut straw, all mixed and moistened with water, in two feeds, morning and night. They were kept well bedded, the stable cleaned twice a day, the cows combed once a day and watered in the stable when stormy, and in the yard when fine.

Dairymen would find it pay them well thus to weigh their milk. They would soon know which

cows to keep and which to discard, and in case of sale both buyer and seller would know what they were doing.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL
Raising Calves for the Dairy.

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

Somewhere I have seen an engraving intended to illustrate the effect which different modes of life have on the human countenance. Beginning with the head and face of a child, the artist follows his growth and change when favored by the helps of education, good influence, and business or professional success. Along another line in the same plate there is traced a series of faces, illustrative of the shape and expression, begotten by a life of idleness and vice; poor in all circumstances tending to stimulate towards the good or restraining from evil. Every observant thinker can call from real life confirmation for the picture argument of the artist. All outside influences, treatments and circumstances have a tendency to modify life in their own direction and likeness.

But the boy and young man as well as the old man, have the privilege of determining their relation to all these things, by the exercise of will-power. They may make all these their servants to help them upward and onward to usefulness in life, or may let them become masters, whose bondage they willingly accept, as hewers of wood and drawers of water, in mind as well as body, all the days of their lives.

The will-power, to select, to accept, to reject, may be taken for "hereditary;" the circumstance, to serve or enslave, as "environment." Will-power, if the right sort, will put the young man into such relation to all possible environment that it will always be of the best sort for him. In our civilized conditions of life man is perhaps the only creature whose will-power towards these things has free scope.

Hence I abruptly draw this conclusion, that the "individuality" of the farmer has more to do with the successful raising of profitable milking cows for his dairy than the pedigree of his herds.

As another agricultural journal has already deplored my weakness for the philosophical, I will simply use common words to explain the last statement in this rather long preface, which has been written to enlist the interest of readers in the most neglected and not least important department of dairy farming.

As a rule there is no profit in trying to raise the late calves. In any case the calves from the best milking cows only should be selected for raising. The herd bull should have a pedigree, linking him to a family distinguished for milking qualities. If a calf with a big body at one, two, three, or six months old, be what is wanted, the calf had better be allowed to suck its dam. But if a calf leaving a large profit on her rearing at two years old, and a large profit from her milking afterwards be what is sought for, then she should be raised the other way. When the calf is allowed to suck the cow for even a few days, the cow is in a less contented condition of nerve to yield her milk to the hand for some days or weeks. The restlessness thus caused, will tend to the lessening of the milk yield in most cases. The task of teaching the calf to drink is doubly difficult when it has acquired the habit of getting its supply in the natural way. Invariably where a calf has been allowed to run with its mother for ten days, I have found it to go back or at least fail to gain in condition for a fortnight after the change to pail feeding. The checking of its growth and thrift, at that early stage in its development, entails more loss of possible profit in after

years than a partial winter's starvation when eighteen months old. The organs of digestion, whose function it is to get for the animal all possible good out of its food for maintenance, growth, beef, milk, or work, can never be injured with impunity. The treatment from the day of birth should be to preserve and, if possible, improve their assimilating power.

Milk, from the first six milkings of the mother, should be fed to her own calf three times a day. The first milk, called colostrum, by some, "beastings," is of medicinal as well as food value to the young calf. For two weeks the calf will not need nor partake much besides the two or three quarts of whole milk of each feed. Some will then begin to nibble at bran and grain if accessible in a conveniently placed box. The milk should be fed as near the blood temperature (90° Fah.), as practicable. After the lapse of a fortnight a gradual change during the third week may be made from whole milk to sweet skim-milk. Such a change can be best effected by putting skim-milk, in gradually increasing quantities, with the whole milk, until it is wholly substituted for it. The skim-milk should invariably be fed sweet. The sourness of milk is evidence that some of the feeding value of its large per cent. of sugar of milk has been lost by the change into acid. Besides, the sourness renders the food unsuited to the stomach of a yet tender calf. Sour feed to a calf favors growth in but two ways. The calf so fed will develop marvelous girth around the belly. Pot-bellied is hardly sufficiently expressive of the umbilical enlargement from that cause. Then the growth of hair is effectually and speedily promoted. It becomes so strong in "stalk" that it stands out in daily protestation against that kind of feed. The skim-milk should also be fed warm; the blood heat is best. Where no better convenience exists for the heating of the skim-milk, hot water may be added with advantage. A feed of ice-cold milk, such as comes from the deep setting cans (by the use of which fine dairy butter can be most economically made), will leave the calf uncomfortable. That is but the evidence that indigestion exists, and may be made partially permanent by a continuance of such injurious treatment. The power and practice of digesting and assimilating all that is possible out of its feed should be encouraged into a fixed habit, by giving the young animal only suitable feed in the best condition of preparation. These points about the feeding of skim-milk will apply to young pigs, as well as to calves.

A gutty, thriftless pig is the necessary result of a careless and wasteful mode of feeding even excellent skim-milk. To make up for the fat taken out of the milk in the shape of cream, some supplementary feed should be given to calves with the skim-milk. Linseed, oilcake, bran, oats and peas are all good. Bran, chopped oats and peas are generally mixed and fed raw in the milk. That practice is most objectionable, and frequently results in the loss of the value of the grain fed, and inflicts injury on the calf by scouring. A better plan is to put the bran and chopped oats and peas, in a dry state, into a box within reach of the calf. Between the ages of one and three weeks most calves will begin to eat. The chewing necessary to a comfortable swallowing of the grain, fits the feed for proper digestion and prevents all risk of scouring from that cause. Besides, the chewing favors the secretion and free flowing into the mouth of a good deal of saliva needed for the proper digestion of the milk, so hurriedly gulped down from the feeding-pail. Linseed and oilcake may be boiled or well scalded and mixed in the syrupy state with the milk. The preparation involves time and trouble. Equally good results are obtained from the feeding of either in the raw and dry

state with the mixture of bran and chop. They should first have been ground very fine. The linseed is preferred to the cake. The composition of the additional feed, as to proportion of its parts, would be about equal quantities by bulk of bran, oats, peas, and about a teacupful of ground linseed to each quart of the mixture. No fixed quantity per head for feeding need be mentioned. It has been found desirable to allow the calves to take as much as they care to eat. Handfuls of the best hay—and all hay for fodder should be cut on the green side—may be offered, and most calves will eat at a month old. As soon as grass can be got it should be given in liberal quantity. Opinions differ as to the relative advantages of keeping calves in the stable all summer or allowing them the run of a small pasture-field. A grass plot with no shade from the sun, and where flies are numerous and diligent, is not the best place for calves. But if calves be kept in a dark and cool stable during the hot days of fly time, and turned out for the evenings and nights, the protection of the soiling system will be coupled with the benefits of exercise and outside feeding.

Some farmers report very satisfactory results from adding pulped turnips to the above mentioned grain mixture, from the time the calves are three weeks old. No matter where fed—in the stable or out—each calf should receive only its own allowance of milk. The distension of stomach by over-feeding is very harmful. The old-fashioned implements for the feeding of six calves, which were but three buckets and one big stick, had better be exchanged for more sensible and economical conveniences. Outside feeding from a trough is unsatisfactory, as the big and greedy calves get more than their share, while the weaker ones get barely enough. The construction of small stalls for the calves, against a fence in the pasture-plot, will make it easy to give every calf its own share in its own pail, and successfully avoid the respective risks of gorging and starving. Calves raised in this way will gain in size and strength of constitution all spring, summer and autumn. When the severe weather of late fall and winter comes, it finds these calves accustomed to live mainly upon grass and dry chop feed, so that the change to stable and winter conditions of existence is not very trying. With good hay, sufficient chopped grain, and enough pulped roots all mixed, the calves will thrive and look larger and stronger every day. When the best conditions of probable growth have been supplied by the intelligence of the owner, the inherited good qualities of the calf have had fair play. But if these good qualities, though gotten from the best of stock, be balked at the beginning by unsuitable conditions for growth and thrift, all chance of after profit from milk or fattening is gone. The profits of the dairyman are to be largely augmented by proper attention to the early feeding of early calves.

Poultry.

Poultry on a Large Scale.

(Continued from January Number.)

BY J. W. BARTLETT, LAMBETH, ONT.

THE BREED.

Without preamble or prelude, we may say, take Plymouth Rocks or Wyandottes as may suit your fancy. Our own idea is that the Wyandotte is the fowl for the poultry farmer, but in this we have only one season's experience to sustain us, backed, however, by the universal verdict of all the Wyandotte breeders who have expressed themselves either publicly or privately.

First, these birds produce more than even the pop-

ular Plymouth Rock from a given amount of feed, both in eggs and flesh, besides as broilers at three months' old, they have a plumper body and a finer flavor than any other with which we have had any experience. On the other hand the Plymouth Rock is an older breed, and can be depended on to reproduce their own likeness with greater certainty, and are also a little larger fowl, the difference in the standard weights being one pound; but as they are more ravenous feeders and do not excel the Wyandotte in egg production, they certainly do not pay as well. This is of course assuming that the Dots will continue as they have begun with us. Certainly there are other breeds of great merit, and under certain circumstances, more profitable. But we are viewing the matter now from the standpoint of a poultry farmer, one whose object is to select the breed best adapted to his wants, not for fancy, or to breed high-priced exhibition birds, but for supplying both dressed fowls and eggs for market.

But circumstances materially affect cases, and under different circumstances it may be advisable to select a different fowl. There are cases where eggs are the primary object, and dressed poultry a secondary consideration, or perhaps no consideration at all. In such a case the brown Leghorn would be the best by all odds, as they will, if given proper attention, produce 25 per cent. more eggs than the breeds above referred to; but the cockerels (of which there will be a great number in keeping up the stock of laying fowls) while consuming as much feed during the time of growing, say four months, as those of the Plymouth Rocks or Wyandottes, and will not produce over one half or two-thirds as much meat, there is quite a loss here. A writer in the *Poultry World* some months ago says, "It will pay better to keep B. Leghorns on an egg farm even if no market is available for them as dressed poultry, as the hens lay so much more than any other breed that it will pay to kill them when two or three years of age, and the cockerels when distinguishable from the pullets, and bury them in the compost heap." In this, however, we cannot concur, as by the time the cockerels are old enough to distinguish from the pullets they would, if of the proper breed, be worth at least fifty cents per pair at lowest market prices; and assuming that the number of hens kept were four hundred, it would be necessary to raise two hundred pullets each year, and the most skillful breeder will, in doing this, be likely to raise one hundred cockerels, which at the above figures would be worth twenty-five dollars—too much for a poultry man to throw away on the compost heap. Then, again, the hens at two years of age should be put on the market as dressed fowls, and there will be again a difference of fifty cents per pair, which, on the two hundred, would represent a hundred dollars, making one hundred and twenty-five per year against the Leghorns. But if we assume that the Leghorns will be worth half as much as the others, and make the difference sixty-two dollars and a half, which is quite within the mark, it will make a great difference in the balance sheet at the close of the year, and the Leghorns would have to make lively work to lay that value in eggs more than the other birds in the year.

We will no doubt be criticised in these figures for assuming that the Leghorns consume as much feed as the other breeds, which idea is entertained by those who have not tested the matter. To such we would say, the Plymouth Rocks consume a trifle more, and the Wyandottes a trifle less than the Leghorns.

But in some markets a fowl sells for a fowl, and there is not so much discrimination as in others between yellow flesh and white or blue, or between

brown eggs and white ones. In such a case it *might* be judicious to use Leghorns, but only under such circumstances, and even then it is a question whether it would not pay better to ship the poultry for market, either dressed or alive, to some market where good, plump, yellow-fleshed birds are appreciated, than to raise skinny, blue-fleshed birds, because the local market did not appreciate better.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Hints for Spring Management of Poultry.

BY THOS. GAIN, HAMILTON, ONT.

Use plenty of whitewash in the poultry houses now. As the warm weather approaches, the lice will begin to get their work in unless precautions are taken to keep them in check. Clean up the house and yards; add some carbolic acid to the whitewash and dust it freely into the crevices and corners of the house; put coal oil on the roosts; insect powder or sulphur into the nests and dust baths.

Brahmas will not lay plentifully if fed strongly, as they take on fat readily, and when fat do not lay.

A splendid tonic and disease preventive for the fowls is to feed chopped onions about twice a week.

To save eggs for hatching put them in a box of oats or shorts; set them on end and reverse the ends each day. Keep them in a temperature of about 50°; the fresher they are set the better the results. In setting a hen a roomy nest should be provided. Many of them are made so small that the hen is unable to perform her duties of stirring and turning the eggs without breaking some of them. Sprinkle hen and nest freely with sulphur, which will drive away all insects. Some eggs will hatch earlier than others; remove the chicks and keep them from the hen until all are hatched, or she will be likely to forsake the nest with the earlier hatched chicks, and the late comers will die.

To prevent feather eating feed meat and keep the fowls busy scratching for their grain. Fowls are quarrelsome if fed on raw meat; it should always be cooked, which also makes it more nutritious. Do not forget a supply of broken charcoal at least twice a week.

Young and growing chicks cannot be overfed; give them all they will eat; keep them out of damp and draughts, and you will have some fine specimens for the fall shows.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Poultry Keeping.

BY ARTHUR HARRINGTON, RUTHVEN, ONT.

(Continued from March.)

Feed her on corn only, every other day, and give water, of course. Should she be a little wild, fasten her in, leaving a small space at the top for ventilation. Our setting boxes are arranged with a door and hinges and we shut in every hen that we set, beshe tame or wild, insuring ourselves against a possible loss of eggs and as a natural adjunct *display of temper*. We know of nothing more provoking than to give a hen of apparently sound, disposing mind, a nice nestful of eggs, have her attend faithfully to business 8 or 9 days, and then to find her off the nest, "gallivanting" around with some young cockerel seemingly intent on producing four eggs per day; and language fails you when you try in vain to induce her to return. Gentle readers, we've been there. Chalk down our advice about setting a hen, follow instructions minutely, and when you see everything working smoothly, you will never regret the extra time and the labor expended.

Fifty per cent. in March is good hatching, and to secure this, much care is involved. Our first hatch

(March 2d) this season gave us 77 per cent. of very vigorous chicks, but we commenced working for this result last December. Healthy prime specimens, descended from stock whose eggs always hatched over 90 per cent., were placed in houses which had previously been made snug and clean, and abundantly provided with means of ventilation. Windows in the south side gave light and heat, and tended to produce health. The floors were covered to the depth of 7 or 8 inches, with dry forest leaves, and strict cleanliness was observed every day or two. Green food in the shape of cabbage or corn fodder was fed them in the middle of *every day*, and their last feed *every night* was warmed whole corn. Their morning feed was varied somewhat; corn, wheat and oats, in equal parts, mixed, constituted the morning fare five days in the week, and was always buried in the aforementioned leaves. The remaining two mornings a mixture of table scraps, scalded meal, with a little wheat bran added, and possibly boiled fish, was fed, the whole supplemented with enough grain to keep them busy scratching from daylight till roosting time; clean water was kept before them, as were also pounded shells.

(To be continued.)

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Why Poultry Keeping Does Not Succeed Better.

BY WM. B. COCKBURN, ABERFOYLE, ONT.

This is largely owing to the defective ways adopted in its management. Some of these are amusing. We have frequently found when visiting farms, the entire poultry of the place perched in the trees, from the lowest to the topmost boughs. They had thus perched to secure them from their enemies.

Many failures, oftener termed "bad luck," arise from neglect and bad management. Sometimes failure and loss overtake the poultry-keeper who has to all appearance done everything necessary to insure success, but still there is a cause somewhere, and a close examination will usually bring it to light.

One day, while calling on a neighbor, he asked me if my hens were laying. On answering him in the affirmative he said, "That's strange; I have never got an egg all winter." On looking into the poultry-house the cause was apparent. The hens were pale in the comb; there was no dust-bath, and no water; and on making inquiry as to how often he cleaned his poultry house, he said, "Once, and sometimes twice a year." When your poultry business does not prosper, set cut with a will, search out the cause and remedy, and try a better way. The years are past when poorly attended stock of any kind will pay. In future we must strive to aim at a much higher standard.

There are many ways of preparing cheap, nourishing foods which may contain all the elements of the eggs. One of the best is as follows: Take a piece of liver, rough beef, or even blood (about a pound), and boil it to pieces in half a gallon of water, adding more when too much has evaporated. While boiling add half a pint of soaked beans, the same of rice and the same of linseed meal. When the whole is cooked and thickened with two parts of ground oats, one part bran, one part middlings, and one corn meal, add the mixed ground grain until the mess is thickened to a stiff dough. If it burns a little, no harm will be done. Then stir in half a pint of ground bones. If milk is convenient, it may be added, either as curds, buttermilk, or in any other shape. When boiling add a tablespoonful of bread soda to the water. This food may be cooked in the shape of cakes, and crumbled for the fowls, or fed in the soft state.

Just before adding the ground grain, chopped clover may be placed in the boiler also. Another good mess is to chop clover very fine, and steep over night in boiling water. In the morning let the water come to a boil, and thicken with mixed grain as before, and feed. Condiments, such as red pepper, should be sparingly fed. Soft food should be given every morning with some salt in it, as salt is as essential to poultry as to larger stock. Always provide plenty of clean drinking water.

The Apiary.

A Big Find of Honey.

In one of our old country exchanges reference is made to a big find of honey in the top of a large tree in Australia, where the bees had built a hive and accumulated the precious liquid in cells till it amounted to about a ton and a half in weight.

This was certainly a large find, but we can far outdo it in Canada, if true to ourselves. Our alsike meadows produce tons upon tons of it every year that lie ungathered because of the scarcity of the busy little workmen of the hive. There is wide room in the country for the extension of the bee business, whatever may be said of the market. In very many localities if only a few hives of the little toilers were but placed, the owners would get in autumn a much larger find than did the explorers of Australia. Nor will he require to fell one of the choicest forest trees to get it. It will be at his door. These faithful workmen are always willing to work when there is anything for them to do. They have no trades unions, and never strike. All they ask is a house to live in, and fields in which to labor.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Purchasing Bees.

BY R. F. HOLZERMANN, BRANTFORD, ONT.

Doubtless the general impression that Canadian honey has found an outlet in Britain will give many the thought that bee keeping will become more profitable and the price of honey increase. In consequence the uninitiated will try their hand again at bee-keeping. Let it be said here that bee-keeping is no royal road to fortune or affluence. The impression that such is the case has been all too prevalent, and to the injury of the industry. Bee-keeping, properly conducted—that is, with intelligence, promptness and understanding—still gives a very good living, and more. It has still its fascinations; the study of it is still of deepening interest as we gain an insight into the life of the bee; but all this does not tell us that bees will keep themselves, need no care, or if handled, such handling can be done in a manner that only retards their progress, and still their keep pay. What we may justly believe is, a few colonies may, by care and study, become profitable, and, as experience teaches us, we may become extensive and successful apiarists. But of all pursuits, bee-keeping cannot be conducted in a slipshod manner.

As many at this season contemplate starting into bee-keeping, and will probably purchase, a word of warning would be profitable. The disease, foul brood, although not prevalent in Canada, is nevertheless found in various parts, and known to be there, so much so that the Ontario Bee-keepers' Association deemed it advisable to apply for legislation to enable the disease to be stamped out, quarantined, etc., as contagious diseases among cattle.

The disease, therefore, existing in some localities, extreme caution should be exercised in purchasing

bees, as foul brood allowed to spread in the apiary of the novice, may cause the destruction of all the colonies in the yard, and in addition many colonies for miles around may become affected, and all without the knowledge of the owner. In early spring the symptoms are somewhat remote, and it requires a careful inspection to detect these symptoms even should the colony have been conspicuously affected the previous season. As the name implies, the disease affects the brood—that is, it does not cause the destruction of the mature bee but whilst in the larvæ stage. The first symptoms are a sinking of the cell capping or a small puncture of the capping. The idea would suggest itself that the bees had punctured the cell to remove the dead larvæ, but had desisted for some reason. Upon opening the cell the matter within has assumed a shapeless brown, and has fallen to the bottom side of the cell somewhat. Upon attempting to withdraw this matter with a pin it is found to be of a roapy consistency, and difficult to withdraw. The bees do not remove it, and in time the moisture evaporates, and the only trace left of the disease is, at times, the cell-cap with the puncture, and always the dry, shriveled remains of the dead larvæ. A cell here and there showing the death of an immature bee is in itself not dangerous, but as the disease spreads the room for brood-rearing diminishes, the bees which should replace the old and worn out do not come forth, the stench from the decaying matter in cells is peculiar and repugnant, and the entire colony appears to lose heart and in time perish. The disease is often spread by other colonies in its weakened condition robbing it, and carrying away the germs of the disease, when in turn they reap their reward.

From the above it will be seen that in the spring of the year before the colony is very actively engaged in brood-rearing, it is somewhat difficult to detect foul brood; at the same time the germs of the disease are never lost from season to season, no degree of known cold has destroyed the germ. Therefore the novice should be careful that he purchases colonies which are not diseased. The party purchasing should buy from one in his own vicinity who he can and has reason to trust, or if from a distance, have reason to place entire confidence in the apiarist from whom he purchases, both as to his ability to detect the disease, and also as to his will to do what is right and honorable; and it is to be regretted that the high position a man holds does not at all ways mean such desire to deal justly.

In conclusion, I would say, do not purchase before fruit bloom, if you have not some practical experience with bees. The early spring is perhaps the most critical, and in a measure the closing step in wintering, and bees are better in the hands of the experienced at this time. Never purchase two weak colonies even at the same price as one strong; the former will rarely give good results, will need more care, and one good colony will give you more honey and increase than the two medium. Do not enter into bee-keeping with the idea they can be neglected and still pay; they surely cannot. You will be disappointed. Too much of this has been circulated in the past, and too many have been disappointed. Stop in time, and if you enter into bee-keeping you must be willing to make a reasonable outlay in such appliances as are necessary to conduct bee-keeping on modern principles. Do not purchase these at the last moment, but be in readiness so that when the time comes, you are fully employed, and these necessities are at hand. On some hot day during haying, the apiarist will find his bees clustered on some shady tree, no hive ready with comb foundation, or his bees idle at the entrance for want of storage room. In the busy season for bees

and men every hour thus situated means loss. That harvest will never come again; one day lost during the honey season may mean 15 to 20 lbs. loss in honey, and how few are there!

Horticultural.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Blackberry.

BY E. D. SMITH, WINONA, ONT.

After other small fruits are gone the noble blackberry appears, to delight us once more with a new flavor, more agreeable to my taste than any of the preceding fruits. The blackberry, or as it is popularly called, the thimbleberry, requires deep, strong land to succeed. The roots run deep into and through the ground, and where the subsoil is friable and rich, there this berry flourishes.

I think it prefers heavy soil to sand, but as I said before, the subsoil must not be hard, poor and stiff. Ripening in August the blackberry frequently strikes a drought, about at the time of maturing its crop; hence the greater necessity of deep soil, not easily affected by drought. Here, as with red raspberries, authorities differ as to method of planting, some planting in hills to cultivate each way, others planting in hedge rows, setting plants two feet apart at the outset, then allowing sprouts to grow up, say every foot along the row. Some put up posts and run a wire along the row to which to tie the canes. This is certainly the nicest way but costs something; besides, one wants steel gloves to tie blackberries. If not tied up the canes should be nipped back when about three feet high, to induce the growth of laterals, which, interlacing, serve to form a hedge not easily blown over.

The chief objection to blackberry culture is the abundance of terribly sharp thorns that make it disagreeable working amongst them from beginning to end. It is true there is a thornless variety, the Wachusett, but I presume it is not as profitable as the others, else it would soon supersede them. There are a great many varieties of blackberries, but none I have tried perfect yet. Kittatinny is a model of productiveness, vigor, and all that can be desired as to size and quality of fruit, but it is badly affected by that scourge of blackberries, the rust, which, when it strikes a plant, leaves no alternative if you wish to save the remainder of the plantation but to dig it up and burn it as soon as discovered.

Then the Kittatinny is tender; when the mercury goes lower than 15° below zero the canes are usually destroyed, and sometimes with less cold. Lawton is even more tender but a grand berry when it can be grown, its only fault being a sour core if picked when it first turns black. It should remain several days after it is black to reach that luscious ripeness that makes city people willing to pay 20c. a box for another lot. Early Harvest is two weeks earlier than the above; so also Brunton's Early; but both are too tender for this country. I find Wilson's Early is a fine, large, productive variety, but more tender than Kittatinny. Wilson Junior and Early Cluster also went down with Kittatinny. Dorchester is a fine berry, a very strong grower and a little hardier than Kittatinny, but not so productive.

There are plenty of hardy sorts, but unfortunately they are not large in size. The hardiest kind I have is Stone's Hardy, which seems to be proof against everything, frost, rust and drouth, but the berries are too small to gather in a dry season like last. How they may do in a favorable season I cannot tell. It is only fair to say the wild ones were too small to gather last year with me.

I like to see Stone's Hardy grow; its habit is stout and not so tall as other strong growers, and it grows the picture of vigor and strength. Next in hardiness is Snyder, a very productive sort, free from rust, perfectly hardy; berries too small last year, but in favorable seasons a fair size. Agawam and Ancient Briton are hardy, but I have not fruited them. Western Triumph is a splendid variety, as regards vigor, freedom from rust, and hardiness; berries are of very good size also, but only having fruited it one year, I cannot speak more of it. Taylor is another hardy sort, sufficiently so at least, very productive; berries very fair size, plant healthy and moderately vigorous, at present the most popular hardy variety. The Erie is the new claimant in the blackberry line; that, of course, eclipses all else, but not having tested it, I can only say of it, that it costs a good deal to plant many. I hope, however, to have more of it soon.

Hardy Varieties of Flowering Shrubs.

Prof. J. Hoyes Panton, of the Ontario Agricultural College, in bulletin No. 5, issued by that institution, names the following 13 varieties of shrubs as best adapted for ornamental purposes on account of their size, time of flowering and hardiness.

1. Berberis purpurea (Purple-leaved Barberry) 3 to 5 feet high, flowering May.
2. Ribes aureum (Golden Currant), 5 to 7 feet high, flowering May and June.
3. Syringa Persica (Persian Lilac) 4 to 6 feet high, flowering May and June.
4. Lonicera Tartarica (Tartarian Honeysuckle) 5 to 9 feet high, flowering May and June.
5. Viburnum opulus (Snowball), 5 to 9 feet high, flowering May and June.
6. Spiraea chamaedrifolia (Germander-leaved Spiraea), 3 to 5 feet high, flowering May and June.
7. Weigela rosea (Rose-colored Weigela), 3 to 6 feet high, flowering June.
8. Philadelphus coronarius (Mock Orange), 5 to 10 feet high, flowering June.
9. Spiraea aurea (Golden-leaved Spiraea), 5 to 7 feet high, flowering June.
10. Symphoricarpos racemosus (Snowberry), 3 to 5 feet high, flowering June.
11. Colutea aborescens (Bladder Senna), 4 to 6 feet high, flowering June.
12. Spiraea sorbifolia (ash leaved Spiraea), 4 to 7 feet high, flowering July.
13. Spiraea Birlardi (Pink Spiraea), 4 to 6 feet high, flowering July and August.

The professor also sums up the results of their experience with shrubs at the college as below:

1. Where shrubs are planted in clumps they grow better by having all the land between them cultivated.
2. Shrubs should be thoroughly cultivated around them for a distance of about three feet, so as to keep the soil clean and loose.
3. In the selection of shrubs, their hardiness should be considered, otherwise their purchase is money thrown away. It often happens in a climate like ours that the most expensive varieties are the most tender, and not likely to succeed.
4. Shrubs which withstand the climate of Guelph may be termed very hardy and may be grown successfully in most parts of Ontario.

Personal.

Mr. John Isaac, of Bonanton, Ont., so well known as a successful breeder of Kinellar Shorthorn, has sold his farm near Bonanton, and purchased within 1 1/2 miles of Markham Ont. This, as we see it, is unfortunate for Northumberland Co. but as fortunate for the Co. of York. Mr. Isaac has already removed to his new home.

The late Mr. C. G. Charters, Treasurer for 30 years of the county of Kent Ont., and deservedly one of its most popular and useful inhabitants, died at his residence, Beechwood, near Chatham, near the close of February at the comparatively early age of 78 years. Descended from a very ancient and patriotic family in Dumfriesshire, and more immediately from the grand

old Scottish covenanters. He located near Chatham in his 18th year, was, for a while, connected with the Gove Bank, and filled various offices of public trust, including that of Mayor of Chatham, with much acceptance to the public generally. It was in his capacity of a lover of good stock that we came to know him, as he had one of the best herds of Shorthorns in the county of Kent, which, during recent years, has been managed by his son, F. W.

Earth's faithful workers one by one
Do wearied lay them down to rest
From toilsome duties nobly done
Their very memory is blessed.

Though resting on the farther shore,
Their labors follow them as yet,
In other lives they live once more,
Nerved by the example they had set.

It is thus the good that good men do,
Can ne'er be laid in silent grave
For all the ages through and through
Are stored by the expanding wave.

Jottings.

The Provincial Exhibition.—The forty-second Provincial Exhibition, will be held at the city of Ottawa, Ont., September 19th to 24th, 1887.

Cavalry Horses.—Col. Goldie and Veterinary Surgeon Mathews, the officers detached by the British Government to visit this country to purchase cavalry horses, are expected to arrive at Ottawa early in April. We have not been able to learn what route they will take thereafter.

Removing Ring-worm from Cattle.—In answer to numerous queries on this subject, we may say, that if the affected part is gently scraped with a knife, and a mixture of sulphur and lard applied, usually one application will suffice. Another remedy is to apply iodine to the affected part, but in this case the hair does not grow in again so soon.

Migrating Southwards.—Writers on live-stock in Great Britain have of late been commenting on what they term the invasion of England by Scotch breeds. Of late years the blackskins have crossed the border, and are now found grazing numerously on English pastures. English dairymen, too, are represented as falling in love with the Scotch Ayrshire cows and introducing them into their pastures. They are doing it on the grounds that they give large returns for the amount of food consumed.

Removing Lice from Cattle.—In answer to an inquiry we may mention that usually lice may be removed from cattle by shedding the hair along the back from the top of the head to the tail and on the shoulders, and dusting in brown hellebore pretty freely, sometimes two applications about a week apart are necessary, and in extreme cases three, but often one will suffice. Tobacco water and quassia chips are good, particularly the latter, but not so easily applied.

Period of Gestation.—Professor G. T. Brown gives the following as the average period of gestation in domestic animals. In the mare, 340 days, the cow, 280, the sheep and goat, 150, the pig, 120, the dog, 63, the cat, 55, and the rabbit, 39. From these averages there is considerable variation, and different breeds of the same differ in their averages. We deem the average given in the pig too long. In our own experience this has been but 112 or 113 days.

Red Cob Ensilage Corn.—We notice that Messrs. D. I. Bushnell & Co., St. Louis, offer this corn for sale at 70c. per bush., f. o. b. cars; and they mention the rate of freight to Toronto as 28c. per 100 lbs. on 500 lb. lots. The corn is white and is recommended by the above firm as possessing superior qualities in the growing of ensilage. Can any of our readers give us any light as to the value of this corn grown in Canada for the above purpose, as the result of their own experience?

The Clydesdale Stud Book of Great Britain.

—We are indebted to Archibald M'Neillage, Esq., the Secretary (47, Gordon St. Glasgow), for a copy of the 6th volume of this book, which contains the pedigrees of mares from No. 5172 to 5892, and of stallions from 4203 to 5472. The mares are such as had produce prior to 30th September, 1886, and the stallions were foaled before 1st January, 1886. The appendices contain (a), corrections and changes in ownership (b), district stallions, etc., and (c), obituary notices, and there is a full list of members, breeders and owners.

Raising Calves on Whey.—We were informed by Mr. W. H. Walker, Secretary of the county of Huntingdon

Dairyman's Association, P. Q., that he has been raising steers for the past four years, fed on whey when they were calves; and usually has them weigh 1,200 lbs. at three years, and made them as high as 1,350 lbs. Last year the whey fed was sweet, and they promise to do much better than formerly. Along with the whey they get ground oats, barley and peas. This mixture is scalded by pouring boiling water on it, and is then stirred into the milk. They get new milk for about a month and are taught to eat the meal before the change is made. We do not approve of raising calves on whey when it can be avoided, but sometimes it has to be done, else they cannot be raised at all, and we cite the present instance to show what can be done through close attention under conditions that are far from favorable. Close and constant attention are absolutely necessary to succeed well in any line of stock-keeping.

Salt as Food for Mangolds.—At the meeting of the Experimental Union of students at Guelph on 25th Feb., a number of the speakers said much stress on the advisability of using salt as a fertilizer on mangolds. A number of them testified as to its beneficial influence in their own experience. The majority of them used 200 lbs to the acre, sown broadcast before the land is drilled in the spring. Prof. Panton stated that so beneficial were its results that it might be regarded as food for mangolds, entering as it does largely into their composition. On some soils turnips will not flourish, while on those mangolds do well. In stock raising it is important to have one or the other. The time is now upon us for sowing mangolds, and as those who sow them are all anxious for large returns, in addition to careful preparation in other ways, let all who can try salt on at least a portion of the field.

Breeders of Booth Cattle in Britain.—We learn from the *London Live-Stock Journal* that the purest herds of Booth cattle in England perhaps at the present time, belong to Mr. Hugh Aylmer, West Dereham Abbey, near Stoke Ferry, Norfolk (whose herd numbers about one hundred head), and Mr. T. H. Hutchinson, Manor House, Catterick. Other herds belong to Mr. F. J. Foljame, M. P., Osberton, near work-hop; The Duke of Northumberland, Alnwick Castle; Rev. T. Stainforth, Storr, Windermere; Mr. E. Heighneian, Willingdon, Sussex; Mr. E. Meade Waldo, Barmoor, Northumberland; Mr. T. Pears, Heckthorn, Lincoln; Mr. W. Trethway, Treegoose, Probus, Cornwall; Mr. R. Pinder, Whitwell, Oakham; Mr. J. H. Drakenridge, Chene Magna, Somerset, and Mr. W. Handley, Greenhead, Millthorpe Westmoreland. In Scotland the leading breeders are Lord Polwarth, Mertoun, St. Boswells; Sir W. Scott, Aucum, Jedburgh, and Messrs. A. & A. Mitchell, Alloa. In Ireland, Mr. R. Weisted, Ballywalter, Co. Cork; Mr. Talbot Crosbie, Ardfer Abbey, Tralee; Mr. Humphrey Smith, Mountmellick; Mr. R. Gumbleton, Glanatore, and the Duke of Marlborough.

Wool Growers' Convention.—The second national convention of wool-growers, wool dealers, manufacturers of woollen goods, and international sheep shearing, will be held in St. Louis, U. S. A., on May 11th, 12th and 13th, 1887. The circular states that at present the production of wool in the United States falls short of home requirements. The classes for competing sheep are A, fine wools, which must be registered; B, long wools; C, Shropshire Downs; D, Oxford and Hampshire Downs; E, Southdowns, and F, grades. Classes B, C, D, and E must be pure-breds. The prizes offered are \$30, \$20 and \$10 in each class, and in all, \$1,760. A sweepstakes of \$700 is offered for the best ram or wether's fleece, any age, and one of the same amount for the best ewe's fleece. Entries must be made on or before the first day of May next, and sheep in the pens by noon of the 11th. Three of the five judges in each class must comprise a sheep breeder, a woolen manufacturer and a wool dealer. All communications in regard to the business of the association should be addressed to Captain H. C. West, Secretary of the Wool Growers' Convention, Custom House, St. Louis. We hope that some of our Canadian sheep will be on hand.

Table of Contents.

STOCK DEPARTMENT.	PAGE
Annual Meeting of D. S. B. Association.....	459
Ascertaining the Weight of Cattle by Measurement.....	464
Baron Constance's.....	455
Books on General Farming.....	464
Breeding and Feeding Draught Horses.....	458
Editorial Notes.....	456
Excellent Advice.....	464
Feeding Colts and Working Horses.....	464
Feeding Oil Cake and Bran.....	464
Good Barns and Good Stock.....	463
Manitoba's Letter.....	461
Our Nova Scotia Letter.....	560
Our Scotch Letter.....	462
Outbuildings for the North-West.....	359
Pedigree.....	458
Registration of Imported English Shorthorns.....	462
Saving Liquid Manure—Floor of Horse Stable.....	464
Stock Notes.....	464
The Clydesdale Horse.....	460
The Dom. Shorthorn Herdbook Sustained.....	456
The "Glasgow" Stallion Show of Canada.....	464
The Present Shorthorn Herdbook Standard.....	464
The Rearing of Calves on Skim Milk.....	460
The Shorthorns at Maple Lodge.....	462
The Shorthorns of Springburn Farm.....	458
Working vs. Thinking.....	458

VETERINARY DEPARTMENT:
 A case of Milk Fever..... 465
 Precautionary Hints to Stockowners..... 465

FARM DEPARTMENT:
 Binders..... 467
 Editorial Notes..... 468
 Extirminating Wild Oats..... 468
 Preserving the Forests..... 468
 Junction Pipes and Curved Tiles..... 468
 Report of the Judges on Prize Farms, 1886..... 466
 Swindlers..... 466
 The Central Experimental Farm, Ottawa..... 468
 Treatment of Forest Tree Seeds..... 466
 What Variety of Grain Shall we Sow?..... 467

DAIRY DEPARTMENT:
 Ayrshires as Milkers..... 468
 Editorial Notes..... 469
 Raising Calves for the Dairy..... 469

POULTRY DEPARTMENT:
 Hints for Spring Management of Poultry..... 470
 Poultry Keeping..... 470
 Poultry on a Large Scale..... 469
 Why Poultry Keeping Does Not Succeed Better..... 470

APIARY DEPARTMENT:
 A Big Find of Honey..... 471
 Purchasing Bees..... 471

HORTICULTURAL DEPARTMENT:
 Hardy Varieties of Grapes..... 472
 The Blackberry..... 471

MISCELLANEOUS:
 Advertisements..... 473-482
 Jottings..... 472
 Personal..... 472

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 23d of the month preceding the issue for which they are intended.

Horses.

Mr. David Annan, Pickering, Ont., has still left two Clyde stallions of his last importation. One Laird O'Logie (447). (3755), coming four years, was shown at Toronto.

Mr. Robert McElcham, New Hamburg, Ont., is the owner of the Clyde stallions, Middleton Laddie, and Belton Boy, both coming three years, and both imported. The former was a first prize-winner at the Provincial, Guelph, 1886.

Mr. John Isaac, Bomanton, Ont. (now Markham), is the owner of a five-year-old stallion, Lord Kintore (240) 2254, bred by Mr. S. Campbell, jr., Kintore, Scotland; sired by Hartington (1450). He has in his ancestry such sires as Loftly (458), and Glander (336). He was a prize-winner at several Scotch shows.

Messrs. Percy, Young & Wylie, Bowmanville, Ont., are the owners of three pure imp. Clydes, one aged stallion, Sir William (451), (2420), shown at Toronto, and two one-year-olds. One of these is sired by that famous horse, Cairnbrogie Kier, taken back from Illinois to Scotland, and the other is by King of Craigie, another premium horse.

Mr. J. F. Quinn, V. S. Brampton, Ont., is, we understand, well skilled in the delicate operation commonly known as "Ridgling" in horses. He has very frequently conducted the operation with much satisfaction to those employing him. In performing it, and indeed in ordinary castration, Mr. Q. does not cast the animal. There is, therefore, no risk to run from undue struggling on the part of the patient.

Mr. Wm. Rennie, seedsman, Toronto, has sold his seed farm in Markham, to Mr. Jaques, Eglinton, and will hold a sale on April 5th. Mr. Rennie will still continue to import Clyde horses, and we shall also hope that he will again take up the work of farming in some other quarter. The profession, of which he has proved so bright an ornament, cannot afford to do without him yet.

Mr. W. H. Stewart, Downsview, Ont., imported in the fall of 1885, 3 stallions, all of which are kept as stock horses. In May of the same year Mr. S. imported 4 head. He now owns 5 stallions registered and 2 mares. Mr. Stewart sold a good Clyde stallion to Mr. R. Cheyne, Toronto, last April, and also one to Mr. J. Jackson, Grahamsville. He showed the 3-year-old Clyde Emmerson (390), (4357), at the Stallion show in Toronto.

Mr. David Carstairs, Bomanton, Ont., was an exhibitor at the Toronto Stallion Show. His Clydes are all registered in the Canadian Clydesdale Stud Book, or eligible. They comprise 1 mare, 4 years, 2 fillies, 1 year, 1 stallion, 2 years, a 1-year-old and a stallion foal of spring of '86. Mr. Carstairs sold recently a pair of mares to the Shedden Co., Toronto, for a good round sum.

The Messrs. Jeffrey Bros., Whitby, Ont., write that Clydesdales have been selling well of late. They have recently sold the stallion Newmans imp., to go to Manitoba. Four mares also have been sold to various parts of Ontario. We regret very much to learn that those gentlemen have lost the imp. stallion Woodcock, rising 4 years, which had proved himself a grand stock getter.

Mr. John Bell, "Clydesdale Farm," Lamaroux, Ont., owns the two stock horses, Campsie Lad (344), (4277), and pride of Perth (282), (3736), both were imported by R. Beith & Bro., of Bowmanville. The former was first at the Toronto Industrial last autumn, and the latter at the Markham Show, spring of 1886. Mr. Bell has also two Shire mares, rising three years, imp. He lately sold a good Shire stallion to Isaac Hovey, Cremore, Ont.

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.

STOCK FOR SALE.

FOR SALE—Two Shorthorn Bulls, one 11 months, the other one year. Also, a few Heifers, first-class animals. Prices reasonable. Address, **ANDREW GILMORE**, Huntingdon, Quebec. fe-3

FOR SALE—**SHORTHORN BULL CALF**, twelve months old; color, dark roan. Registered in Dominion Herd Book. Sired by (imp.) Barron (52434). Apply to **JOHN CURRIE**, Everton, Ont. fe-1f-3

FOR SALE—**PUREBRED PERCHERON STALLION**, successful prize-winner at Toronto, Hamilton and wherever shown. For terms, etc., apply to **J. E. or J. H. HARRISON**, Milton, Ont. fe-3

FOR SALE—Six choice young **SHORTHORN BULLS**, and a number of very fine young Heifers, from seven to fifteen months old all registered in Dominion Herd Book. Prices reasonable. Come and see us or write for particulars. **GRAHAM BROS.**, Belvedere Stock Farm, Ailsa Craig, Ont. fe-3

FOR SALE. 6 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 pedigree. **JAMES MILNE**, WHITE OAK P.O., Ont. mar-3

FOR SALE—**FOUR YOUNG SHORTHORN BULLS**, all reds. Three are Crimson Flowers and one a Stamford. All sired by imported Red Knight, a Campbell bull. Prices reasonable. **WM. SHIER**, Sunderland Ont. mar-2

FOR SALE—Three Fine **STALLIONS**, aged 3, 4 and 5 years this spring. Sired by the well-known imported pedigreed Clydesdale Sir Colin. Also two pedigreed Clydesdale **MARES**, 3 and 4 years old this spring; imported from Scotland last summer. Apply to **A. SOMERVILLE**, Huntingdon, P. Q.

Bull for Sale.

SHORTHORN BULL, 14 months old, color dark red, bred by J. Hunter, Alma; registered in Dominion Herd Book. (Clifford Stn., G.T.R.) **JOHN DRUMMOND**, Clifford P.O., Ont.

FOR SALE

The three-year-old stallion **Messenger**. Stands 16 hands high; well bred and a good mover. For particulars address, **D. A. COULTHARD**, Strathburn, Ont. ap-1

ENGLISH PEDIGREED STOCK.

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

FOR SALE.

TWO SHORTHORN BULLS for sale, one two years old, color roan. The other ten months old; color red. Both registered in the D. S. H. H. B. **D. L. LEPARD**, Sharon, Ont. fe-3

For Sale—Two Imp. Shire Stallions.

One a prize winner at the Provincial Show. Will be sold cheap to make room for a fresh importation. Also **CARRIAGE STALLION**, inbred Royal George and Imp. Lapidist; good bone and action. Come and see these horses before buying elsewhere. Correspondence promptly attended to. **fe-2 ORMSBY & CHAPMAN**, Ontario Lodge, Oakville, Ont.

FOR SALE

Clyde Stallion LORD CHANCELLOR No. 83. To be delivered at any time before May 1st, 1887. Correspondence invited. **A. O. BELL**, New Glasgow, N. S. ap-1

SHORTHORNS FOR SALE

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

For Sale—Two Jersey Bulls.

Registered in the A. J. C. C. Also some **GRADE HEIFERS** in calf to Jersey Bull; ages from one to four years, and from 1 to 2 bred. Apply to **SAMUEL SMOKE**, Canning, near Paris, Ont. fe-3

The first importation of the Messrs. Galbraith Bros., Janesville, Wis., arrived in January; second, 1st March; the third will arrive late in March, and the fourth the 1st April. These consist of English Shire and Clydesdales. In the second was Sensation, a 5-year-old, one of the grandest and heaviest of the sons of Druid; weighed 2215 lbs. when he left Scotland. Amongst these are a lot of grand Shires, from the stud of James Forsbaw, England.

Mr. Thos. Taylor, of Howick, has been breeding good Clydes for the last 16 years. In 1882 Mr. I. brought out the stallion Craigie (181, 1051, 2039), and the mare Jeanie Crawford (661, 3037), from Scotland. This mare has bred four times safely and is with foal again, and all sired by Craigie. He is by Old Times (5079), 1050. Mr. Taylor has also imp. Cleveland Bays. Mr. Robt. Taylor, same P. O., has commenced a herd of pure Shorthorns.

Mr. J. Du' Everton, Ont., has sold the imp. 3-year Clyde stallion Lyon Chief, to Messrs. J. D. & A. J. Currie, Orspringe, Ont. Those gentlemen have got a good horse and we hope they may have success in their new venture. The present stock horse of Mr. Duff is Renfrew, 3 years old, which stood 3d amongst 126 3-year-olds last year in Glasgow. He is a great favorite with his owner. Horses imported by Mr. Currie have taken 1st prize at Elora spring show for 8 years in succession.

Messrs. Beattie & Middleton, of Atha, Ont., have recently purchased from Arthur Johnston, Greenwood, Ont., the imp. 3-year-old Clydesdale stallion, Lord Lieutenant (4520). Lord Lieutenant was sired by the Keir stud horse Lord Derby (485), and out of the Highland Society's prize mare Rosebud (657); g. d., the Highland Society's Gold Medal mare Rose of Lochabers (412); g. sire, Conqueror (197), winner of 1st prize at the Highland Society's show at Edinburgh in 1869. As his breeding would indicate, Lord Lieutenant is an extra good colt.

Mr. Heber Rawlings, of Forest, Ont., has just purchased the two-year imp. Clydesdale stallion, Craighendarrach, to stand at the head of his stud, which comprises a fine lot of mares. This horse was bred at Sittytown, and imported by Mr. J. Dryden, M.P.P., Brooklyn, Ont., in 1886. His sire, Lord Fitzroy (1747), was sired by Lord Lyon (486), commended at the Highland Society's Show, Edinburgh, 1869. His dam is Joy of Sittytown (4537), and in his ancestry are numerous prize-winners at Scottish shows. Mr. Rawlings has shown much wisdom in the choice which he has made.

Mr. J. Jackson, Grahamsville, is the owner of 6 registered Clydes. The stock horse is Bellfield, imp. (541) (3414); a nice, well put together horse, weighs 1000 lbs.; sire, 1000 (422), dam, Bell of Bellfield 2032, by Prince David 643. This mare has taken prizes at many shows last season. Mr. J. has 4 fillies and mares from Lord Derby (137), 1067, (1742), and 2 years old, and has 3 brood mares, registered, one of which is imported. He has sold to Mr. Roach, of Toronto, the pedigreed mare Betty Lyon, also a one year stallion, 1610 lbs., by Lord Derby, to Mr. Salesbury, Nebraska, U. S. A., also a young grade Clyde mare to same party. Mr. J. has kept stallions for 35 years and has imported occasionally for 21 years.

Mr. Robt. Ness, Howick, P. O., writes as below: "I have just sold the celebrated stallion Little Jack Elliott (3768), to Thos. Godd, of Richmond. After the heavy loss it is plucky of him to purchase so soon again so high priced a horse. Clifford (4295), by Darnley (222), to John Cumming, Beauharnois, P. Q. Danquhar (3233), by Darnley (222), to Alfred Dubreuil, of St. Cesaire, Co. of Rouville, P. Q. Harry's Boy (vol. ix), by Macgregor (1487), to Donald Cumming, Lancaster, Ont. The Vicar, to Amedee Casarant, Co. Bagoy, P. Q.; Water Lily and Cecilia, to Mr. Keith, Gordon, Co. Huntingdon, P. Q. All the above were sold at satisfactory prices. I still retain Marathon (2994), and Maid of Erskine, having refused several tempting offers for the former."

Messrs. R. Beith & Co., Bowmanville, Ont., are meeting with much success in the Clyde business. They have sold since Oct. last the stallion Forward, 5 years old, to Mr. Peck, Michigan; Ranger, 2 years old, to Messrs. Cleverton & Sons, Kent Co., Michigan; Peer of the Realm, 5 years, to Mr. J. C. Morrison, Dakota, U. S.; imp. Lily of the Dale, 5 years, to the same; Lord Dalkeith, 2 years, to Mr. McLean, Carleton, Ont. Chief Constable, 1 year, to J. Chapman, Co. Durham, Ont. They have still a number of stallions for sale, of different ages. The success of this firm at the Spring Stallion Show was very marked, as stated elsewhere in this issue. Mr. Morrison, a son of the late Judge Morrison, of Toronto, took also from this firm 12 head, in addition to the stallion mentioned above, several of which will register.

Messrs. John Miller & Son, Brougham, Ont., write: "We have sold since last report to John Kennedy, Beaverton, 1 imp. Clydesdale filly, rising 2 years, by Lord Erskine (1744), dam, Tibbie Tocher (5085), by Thos. General (323), to B. S. Fryar, Fargo, Dakota, Clydesdale stallion Stonetown Hero (4738), by Lord Derby (485), dam, Rose of Stonetown (1613), by Young Lord Raglan, (905); to L. M. Rowland, Warren, Pa., Clydesdale stallion Fire Away (4370), by Prince Albert Victor (617), dam, Rose of Craigville (2522), by Young Lord Raglan (995); to Messrs. Henderson & Robinson, St. Marys, the unbeaten colt raising 2 yrs., Bay Wallace (480), by Lord Derby (485), dam, Queen (249), by Eclipse (268); to W. T. Frangley, Dresden, Ont., the Clydesdale stallion Erskine Boy (4987), by Lord Erskine (1744), dam, Flora Macdonald (920), by Lord Haddo (486), and 7 Shetland ponies to the same gentleman; to Arthur Johnston, Greenwood, Ont., 1 yearling Nonpareil heifer; to T. Graham, Port Perry, one Strathallan, bull; to Jas. W. Coupland, Charleston, Mich., one bull and one Shropshire ram; to Wesley J. Carlock, Howell, Mich., fifty Shropshire ewes and rams; to Bell Bros., Springfield, two of our very best imp. Royal wintering yearling Shropshire ewes and three ewe lambs; to Danl. Dyer, Darlington, one Cotswold ewe lamb, and to Manasseh Fretz, Whitevale, two Berkshire cows. Stock wintering well and demand good. We have still a lot of stallions to dispose of and a very superior lot of young bulls, we think the best collection in the country. Our imp. mares are all in foal, and foals raised last year are good."

Stock Notes.

Mr Samuel Staples, Ida, Ont., reports "My herd of Short-horn now numbers 9 head, 5 cows, and heifers and 4 bulls, all doing well. Have just made the following sales: 10 Evesons Ford, Peterboro, Ont., 1 young bull, Wm. Emberson, Bensford, Ont., 1 young bull, 10 Alex. Nugent, Onnecote, 1 young bull. Have purchased from Mr. D. Hodgins, London, Ont., imp. stock bull Beloxche, to stand at the head of herd. He is highly spoken of as a stock getter. Also from the same the English bred coach-hallion Lord Sudeley. This horse was bred by the late Lord Sudeley, of Toddington Park, Wincambe, Gloucestershire, Eng., is 17 1/2 hands high, has fine trotting action and is sure as a sire. He is a bay with white star on his out of Lord Sudeley's hunting mare Columbine, and by Young Heate. My Clydesdale stallion Cheviot, made a splendid season last year, getting the largest per cent. of foals of any Clydesdale horse I ever handled, and is in good shape for another season. I like your JOURNAL well and am doing all I can to help it on."

Mr I. Sturge, of Napier, Ont., sends the following: "Messrs. Cameron, Dinning and McLean, of Metcalfe, Middlesex Co., Ont., have shown a good deal of enterprise in being among the foremost to introduce the pure bred Clyde into their district for breeding purposes. Their first purchase consisted of 2 imp. stallions, The Don (859), by Lord Lyon (489), and a very promising 3-year old, Donside Baronet. His sire, King William (435), is by Prince of Wales (69), and his dam, Rose (402), by Topsman (826), s. d., Sally, by Lord Haddo (405). Mr. Cameron has also purchased from Jeffrey Bros., Whitby, Ont., the imp. 3-year old mare Georgina, sire Commander (1029), dam Clara of Craigie (2435), by Lord Lyon (489). She is carrying foal to imp. Wellwood (4100). He also obtained a span of very promising Canadian bred fillies from the same. These fillies are taking well and there is no doubt they will have the effect of improving the horses of the district. It is almost needless to add that these purchases were made through the medium of your advertising columns."

From Mr S. Beattie, the veteran importer, we have received the following: "Mr. Editor, I take the liberty of sending you a few items of my last sale, which I consider one of the most important ever made in Canada by one stable to one party, as it foots up some \$10,000. Messrs. Banks & Hils, Exporte, Indiana, bought the following: Pickwick (1885) three other imported Clydes, lately landed, two stallion colts, bred in Canada from imp. sires and dams, two imp. Clydes mares, Fife Maggie and Comely, and we assisted in selecting for same party a few Canadian Clydes colts and fillies. Mr. McAfee, Iowa, bought the superior imp. Clyde mare Queen Victoria and a filly, Fife Maggie. Pickwick, as well as two other younger horses, were entered for the Toronto show, but were sold in the interval and left before the show, and we had to pull out the old horse Fifey Getter, unprepared and simply fitted for stud duty, as he is to remain in Canada for the benefit of the Clydesdale interest. Though not in heavy flesh this horse has a clear cut chiseled head and full keen eye, and carries himself proudly and squarely. He has a compact body, great substance, extra bone of good quality, strong, good feet and not afraid to put them down. This carried him to a second place in a good ring of extra well filled horses in Toronto." Our readers will remember that Pickwick was the champion horse in Canada last summer, and along with his stable companion Lucky Getter, swept the board in aged and 3-year classes, getting 1st prize, diploma, medal and sweepstakes, which was certainly a great achievement. A correspondent thus quaintly speaks of Mr. Beattie's persevering work. "We cannot refrain from quoting: 'There are many prominent men now engaged in the importation of good stock. The competition is keen and they are bound to excel, and they are usually ably assisted in their selections by a few of the most noted and shrewd stock dealers in Scotland. But old Simon plods along, relying on his own skill, independent of any advice, and generally gets to the top when he tries. He has beat Canada again and again, and the States, and hopes to do so again when he tries.' Mr. Beattie advertises two imp. thoroughbred English stallions. One of these, Glyndon, foaled 1882, is by Rousucruan a great race horse in his day. The G. S. of Glyndon won the Derby in 1888."

Shorthorns.

Mr. John Frasier, Ayr, Ont., who sold out a Shorthorn herd in 1880, is re-entering again. He is also breeding pedigreed Clydes. His Shorthorn grades are of a superior type.

Mr. A. McPhail, Galt, has six pure Shorthorns, all by 4th Earl of Goodness, by 4th Duke of Clarence. These are all from 4 years and down. Mr. McPhail also keeps pure Berkshires and Leicester sheep.

Mr. Jas. S. Smith, Maple Lodge, Ont., writes: "Our Constance cow, and Constance of the Manor, purchased from John Gibson, formerly of Denfield, Ont., last spring, has given us an extra good red heifer calf, got by our Bates bull, Duke of Co. lous."

Waterloo Duke 12th, calved 15th July, 1884, is now the stock bull of F. Lowell & Sons, near Montrose, Ont. He was bought from Bow Park last June and was sired by 4th Duke of Clarence (33597). On the side of the dam are 12 generations of Watcros, straight.

Mr. A. G. Pettit, of Grimby, Ont., has 15 head of Shorthorns, of which 13 are females. Two are bulls 18 and 2 months old. Mr. Pettit is also largely engaged in fruit growing. We have long thought that fruit growing and stock raising go well together.

Parties wishing to get good specimens of Cruikshank Campbell, Marr and other strains of Shorthorns, would do well to attend the sale of Messrs. Frank R. Shore & Bros., White Oak, near London, Ont., to be held on Tuesday, June 7th (See advertisement.) The herd offered consists of 30 head, including 25 cows and heifers and 5 bulls. The cows and heifers of sufficient age will be in calf or have calf at foot, sired by the very fine imp. Cruikshank bull, Vermillion (50587), bred at Sittytton. This bull will also be sold.

FOR SALE CHEAP—Two good Shorthorn bulls. Full particulars on application. WM. TEMPLER, Jerseyville P. O., Ont.

SHORTHORN BULLS.

YOUR pick of a dozen Bates-topped yearling bulls for \$100 Cows and heifers for sale at equivalent prices. T. C. PATTERSON, Postmaster, Toronto, or Eastwood, Ont.

FOR SALE.

THE grandly bred Bates Shorthorn Bull, 7th Earl of Darlington, bred at Bow Park, for two years at the head of the "Hitiside" herd. Will be sold cheap. JAMES GEDDIE, Paris, Ont.

FOR SALE—3 Shorthorn Bulls, fit for service, all eligible for the new Dom. S. H. B. Two are very good individually. Parties from Manitoba looking up a large lot of good Shorthorn Grades should not fail to call. THOS. STIAW, Woodburn P. O., Co. Wentworth, Ont.

Improved Yorkshire Pigs For Sale.

Imported pedigreed Boars, ready for service, from the best herd in England. Every pig sold registered in English Herd Book free of charge. Prices as low as in England. ORMSBY & CHAPMAN, Ontario Lodge, Oakville, Ont.

REGISTERED JERSEY COWS AND HEIFERS.

A few well bred animals for sale. Write for what you want. JOHN FENNEL, BERLIN, ONT.

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. 1 Shorthorn bulls, respectively 8 mos., 14 years and 2 years old. The above stock have all good pedigrees and individually are good. Address, J. E. BRETHOUR, Burford, Ont.

Young Bates Bulls for Sale.

ONE Oxford roan, calved Jan 10, 1886, one Waterloo, red, calved Jan 8, 1885, one Kirklevington, red, calved Nov 4th, 1886. First class animals of high breeding and at moderate prices. W. MURRAY, Chesterfield, Ont.

FOR SALE.

ONE AYRSHIRE BULL, James Main, 3 years old; 1 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.

FOR SALE.

SHORTHORN COWS, HEIFERS and BULL CALVES. Mostly of the imp. Sym and Mars strains, the latter from the herd of the late R. A. Alexander, of Kentucky, all registered in the new Dominion Herd-book. Southdown sheep and lambs also for sale from stock imported from the flock of Henry Webb, Esq. JOHN MILLER, Markham P.O. Ont. Markham Station, on the Midland R.R. and Green River on the C.P.R.

THOMAS MCKAY,

Breeder of Shorthorn Cattle and Clydesdale Horses, DRUMBO P. O., OXFORD CO., ONT. has for sale a number of choice young bulls and heifers, also one Clydesdale Stallion (Canadian bred), rising 1 year color, bay, weight, 1700 lbs.

MESSRS. GREEN BROS. have decided to offer

FOR SALE



EARL OF MAR (47815)

Winner of gold medal and several first prizes at Provincial and Industrial exhibitions, to make room for a new importation. The Earl of Mar is sure, good tempered, and active as a yearling.

Also several young BULL CALVES, fit for service, got by the Earl of Mar out of imported cows.

GREEN BROS., Innerkip, Oxford Co., Ont.

Stock Notes.

Mr F. H. Hutt, Southend, Ont., is working into a nice little herd of Shorthorns. They now number 7 head, all registered in the D. S. H. B. They include two young bulls and are essentially Bates in their breeding. Mr. H. has a nice flock of pure Southdown sheep, some of which came from the Lorridge flock of R. Marsh, Richmond Hill.

Mr. John Soules, of Southend, Ont., has now 5 pure Short-horn heifer. The flower of the herd is Whitevale Girl, a very smooth roan heifer bought from J. Russell, Exeter, and forward to calve to Mr. Russell's imp. Cruikshank stock bull. The other females of the herd rest upon a foundation purchased from C. Pettit, Southend. The stock bull Waterloo of Riverside is by the imp. stock bull Waterloo Warrier (47422).

Dr. Patten, St. George, Ont., laid the foundation of a Shorthorn herd in 1882, by the purchase of 3 Bates females from Mr. T. C. Patterson, Eastwood, 1 from Mr. Cowan, Galt, and 2 from Bow Park. The bull Roon Duke 12th, 3 years, a son of 4th Duke of Clarence, heads the herd, a bull of much substance. The herd now numbers 10 head, not including the purchases made at the Cowan Patterson sale at Galt.

We are pleased to notice the continued progress of the good work of stock improvement in Nova Scotia. Four pure Short-horn calves have recently been dropped in the herd of Mr. A. C. Bell, New Glasgow, N. S., all sired by Duke of Gloster. There are four heifers, Isabella 6th, Isabella 8th and Isabella 9th, and are red with roan markings. The fourth is from Rowena and is a beautiful roan. All the stock wintering finely.

The herd of Shorthorns owned by Mr. Hugh Mitchell, Southend, Ont., numbers 14 head, mostly females. They are strong of substance and carry a comfortable quantity of flesh. Mr. Mitchell deserves much credit for the way in which he keeps his cattle. We have always found them presentable and showing evidence of a care that is commendable. Mr. M. has sold all his young bulls fit for service.

The Messrs. Green Bros., of the Glen, Innerkip, report the following sales: The promising red heifer, Vera, who has already distinguished herself in the prize ring, by the Earl of Mar (47815), dam, imported Van Duchess, also the red heifer, Cyclamena, also by the Earl of Mar (47815), dam, imp. Clara 40th, to Messrs. Smith Bros., of Innerkip; also the heavy fleshed red and white bull Magician, by the Earl of Mar (47815), dam, imp. Mysie 14th to Messrs. W. & J. Menzies, of Kirkwall, Ont.

Mr. J. E. Brethour, Burford Ont., has purchased from Mr. Jas. I. Davidson, Balcan, a very fine imported roan bull, Prince of Craignand, (53555), bred by A. Cruikshank at Sittytton. His g. d. Comucopia is one of Mr. Cruikshank's best cows, and the bulls of that tribe have given much satisfaction both in the United States and Canada. Mr. Davidson considers him one of the best of the importation made by him in 1885.

The Shorthorn herd of Mr. C. Pettit, Southend P. O. Ont., Co. Welland, now numbers 20 head, all females but two. They are all immediate descendants of the herd of Mr. J. R. Pettit, Grimby, so well known for many years as a breeder of Shorthorns in Southern Ontario. The bull in service is Lord Beaconsfield (10141), who has proved his value as a sire. A draft of 11 head was sold from this herd at the joint sale of Mr. J. D. Pettit, Paris, Ont. (See note of this sale.)

Mr. Duncan McLaren, of Osceola, in the county of Renfrew, Ont., has recently purchased from Mr. Arthur Johnston, of Greenwood, Ont., the very highly bred yearling Shorthorn heifer, Fame 4th, sired by imp. Eclipse (49526), and out of imp. Faine 2d of the Sherriff Hutton sort. Mr. McLaren at the same time purchased from Mr. Isaac Fisher, of Goderich, Ont., a very superior yearling bull, sired by Mr. A. Johnston's imp. bull, Major (53599), and out of Mr. Fisher's very excellent imp. cow, Rosabell. These two additions to Mr. McLaren's already fine herd of well bred Shorthorns, place it high up among the good herds in Ontario. Three of the famous Crimson Flowers occupy places in the herd.

Mr. W. Lindsay, of Caledon East, has recently purchased from Mr. David Birrell, of Greenwood, Ont., a very excellent two-year-old Shorthorn heifer, of the grand old Crimson Flower sort, sired by the noted stock bull, imp. Duke of Lavender, of Mr. Cruikshank's Lavender family. The dam of this heifer was sired by imp. Scotsman 2d (35484), and out of the well-known imp. cow, Crimson Flower, from which Mr. A. Johnston, of Greenwood raised so many good things. Mr. Lindsay also bought recently from Mr. James Gardhouse & Sons, of Highfield, Ont., a good cow, of the Wallflower tribe, with a very pretty heifer calf at her foot, by Mr. Johnston's imp. Cruikshank bull, Premier Earl (48454).

Messrs. J. & W. Watt, Salem, Ont., write: "We have sold the imported Clydesdale stallion Bravery and the Canadian bred yearling stallion Rory O'More, to Mr. J. E. Smith, Brandon, Man. Bravery has been shown as a two-year-old and as a three-year-old in Canada, and has never been beaten. Rory O'More will make one of the best draught stallions ever bred in Ontario. His pedigree will appear in second vol., Canadian Clydesdale Stud Book. To Mr. George Eby, Gowanston, Ont., the imp. Clydesdale stallion Lord Aberdeen, which took second prize in a ring of six imp. aged horses when under three years. Lord Aberdeen is the real stamp of a draught horse. To Mr. David Milne, Ethel, the yearling filly Fancy, Vol. 1. We have also sold the bull Lord Lynden, dam Missie 1st of Lynden, sire Lord Lansdowne (51601), to Messrs. Scott and Rowand, Saugeen. To D. B. Gaunt, White Church, the bull Chief Justice, dam Lancaster's Pride, sire Lord Lansdowne. To Mr. John Balchey, Brantford, the bull Defiance, dam Scotch Lass 5th, sire Bampton Hero; and to Mr. Henry A. Kell, Arkel, the bull Sunset, dam Matchless of Elmhurst 5th, sire Bampton Hero. We have still seven bulls left, most of which will make show bulls, and a nice lot of twenty young calves. Stock doing well."

Stock Notes.

Amongst the numerous sales of Shorthorns made of late at Bow Park, we may mention that of a Kirklevington female, a Darlington and a Waterloo, to Mr. Frank Merritt, Charlotte, Mich.

Mr. Alexander Coyne, of Trafalgar, recently paid a visit to the herd of Mr. Arthur Johnston, of Greenwood, and purchased two of the best imported females in that herd, viz., Wimple of Vermont, sired by the Cruikshank bull, Vermont (47193), and out of the Gordon Castle cow, Wimple 13th, by the Golden Drop bull, G. Alden Prince (3363), & d. Wimple 12th, by Royal Hope (32392). The other female purchased was Fame 2d imp. of the Sheriff Hutton kind, and her promising red bull calf, by imp. Warrior, now owned by the Messrs. Nicholson & Sons, of Sylvan, Ont. Fame 2d is the dam of Mr. W. G. Pettit's (Darlington) bull, The Premier. She is sister on the dam's side to the dam of the Bow Park show bull. These two females show a form the basis of a good herd.

Mr. John W. Robinson, St. Mary's, Ont., is rapidly getting into a good herd of Shorthorns. Mr. R. purchased from Mr. Josiah Wheat tour, St. Mary's, a retired East Missouri farmer, a cow, Princess Alice, in 1884. In 1885 two more were added, from the herd of Thos. Robinson, Kintore. These were of the Booth strain. In 1886 two females were added, bred by J. W. Keast, of Burr, Ont. The bull headalour, coming three years, was bred at Kinellar, and imported by H. Thompson, St. Mary's. He is closely allied to Lord Aberdeen, the stock bull now offered for sale by the Hon. M. H. Cochrane, Compton, P. Q. The young animals bred from these have swelled the herd to 18 head. A number of the heifers are from imp. Brantith Bud. Mr. Robinson also breeds pedigreed and grade Clydes.

The Messrs. Green Bros., of the Glen, Inverkip, Ont., have decided to offer for sale their grand Provincial prize winning imp. Shorthorn bull Earl of Mar (47815). He has been for several years in service in the herd and is to be sold to make way for a new importation. He has proved himself an excellent sire, which is of more account, perhaps, than the laurel he has won as a prize winner. The face, even symmetry of this bull, and the possession of a style that is very taking, linked with absence of every form of excess, have made the Earl a great favorite, so that we hope whoever may be the purchaser he will remain in Canada. They also offer their entire herd of Herefords, consisting entirely of imp. cows and their young descendants, with the imp. bull Cronkhill 8th (8461) at head of herd. This bull has won silver medals at both Toronto Industrial and Provincial Exhibitions. See advt. in separate columns in their respective Shorthorn and Hereford departments.

Mr. J. V. Reid's sale of Shorthorns, held at Hillside, Paris, on 17th March, drew a considerable number of buyers, most of whom were from the neighborhood. Coming just after the successful dispersion sale of Mr. J. D. Pettit, also of Paris, many of those seeking Shorthorns had their wants supplied and therefore the bidding was not so brisk as we have sometimes seen but every animal advertised was sold, which speaks well for the honorable dealing of Mr. Geddie, the manager. C. Robinson, Paris, O. E. Shoupe, Cheapside, A. G. H. McCormick, Paris, H. Groff, Elmira, John Miller, Paris, G. T. Atkins, Paris, Geo. Palmer, Paris, S. Oliver, St. George, E. Disher, Burford, F. Turnbull, Paris, and J. Miller, Paris, were the principal buyers. Mr. Reid's herd contains a nice lot of females of the Roan Duchess strain, every one of them good individually, and headed by the highly bred Bates bull 7th Earl of Darlington, bred at Bow Park. This bull is now offered for sale, as the present herd are all carrying calf to him. See advt.

Messrs. John Cousins & Son, Buena Vista Stock Farm, Harrison, Ont., write: "Our thoroughbreds have done well this last season. Cows have calved and calves doing well, especially bull calf, which we think is extra. The yearlings are by all odds the best we have ever had. Our stock bull Samson is doing well and his stock is above the average wherever he has been used. Have sold the two-year-old bull Lord Lansdowne to Mr. George Newton, Clifford. Ewes are lambing and doing well. Lambs extra, they are from Oxford Down ram bought from Mr. Peter Arkell, of Teeswater, which sheep took first prize at Toronto and Guelph. The stock are all under the care of Mr. Thomas Mutton, herdsman. It has been a very severe winter, and a great many people short of feed, and in general, stock very thin. Fat cattle in this section pretty well cleared out except, for the May market. A great many auction sales, and stock in general sells well. Quite a number of enquiries for thoroughbred bulls, which looks well for the improvement of stock. Mr. John Collinson and P. Lavin have imported two Clydesdale stallions, which makes four fine Clydesdale stallions of their importation in Harrison which they own. Horses, especially heavy draught are selling for good prices."

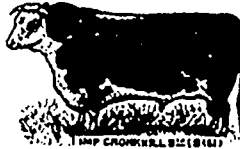
Mr. James I. Davidson, Balsam, Ont., has made the following sales of stock: To the Hon. H. C. Duncan, President of the bank of Osburn, Mo., Chief Baron (52616) of the Clipper tribe, also the bull Julius Cesar (47984), and a red heifer, Gardena, of the Venus tribe, whose dam is Guilder Rose, which was the dam of Chief Justice, sold at Col. Harris' sale, Kansas, for \$750. To J. E. Brethour, Burford, Ont., the bull Prince of Craigoano (51455); got by Dunblane (47792) dam, Candytuff, by Roan Gauntlett (35284), of the Crocus tribe. To John McTaggart, Lonya, Ont., the bull Field Marshall, by Julius Cesar (47984) dam, Arizala, by Roan Gauntlett (35284); g. d. Amariyllis, by Lord Lancaster (26666); g. g. d. Azalea, the dam of Field Marshall (now hired in Queen Victoria's herd), whose sire was Roan Gauntlett (35284), hence the two bulls are bred nearly the same. To Jos. Magill, Janetville, Ont., the bull Lavender 41st; got by Dunblane (47792); dam, Lavender 28th, by Lord of the Isles (40218). Mr. Davidson has also on hand two imp. Cruikshank bulls (reds) and three home bred, which he says are good enough for any show-ring, also a pure bred Clydesdale stallion colt, foaled May 1st, 1886, which has made (the extraordinary weight) (March 20th) of 1150 lbs. He was got by Darling's Prince 23rd; dam, Highland Maid 3d (54), twin with Highland Maid 4th (55), which has a superior filly foal to Darling's Prince. He considers this colt the best he ever bred, although he got \$1500 in gold for The Banker at 16 months old.

HEREFORDS

Messrs. GREEN BROS. offer

-FOR SALE-

The whole of their Hereford Herd



including their Imported Stock Bull

CRONKHILL 8th (8461)

Winner of silver medals at both the Industrial and Provincial exhibitions, and imported cows. Will sell very cheap to an immediate purchaser taking the lot, as they intend devoting their entire attention to Shorthorns.

FINE Young Berkshire Pigs for Sale. GREEN BROS., Inverkip, Oxford Co., Ont.

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.

MORETON LODGE HERDS

-FOR SALE-

56 - BULLS - 56

-39-



-17-

Herefords Shorthorns

44t for Service Season 1887.

Viz. SHORTHORNS—one 3-yr.-old, two 2-yr.-old, ten yearlings, and four calves, 9 to 11 months.

HEREFORDS—two 4-yr.-old, six 2-yr.-old, 19 yearlings, and 12 calves rising 1 year old.

Animals and Pedigrees first-class. Parties wishing to buy will find no difficulty in making a purchase at reasonable figures. See F. W. STONE, 42 Gordon St. Guelph, Ont., Canada.

LORRIDGE FARM

SOUTHDOWN SHEEP.

First established 1857. Commenced exhibiting 1867. Since then have taken over 1,200 prizes, including a large number of medals and diplomas.

Imported Rams used only. Stock for sale.

ROBERT MARSH, Proprietor

RICHMOND HILL, Aug. 17th, 1886.

WILLIAM REDMOND,

MILLBROOK, CO. DURHAM,

IMPORTER AND BREEDER OF

DURHAM CATTLE

The herd now consists of forty head of Cruikshank 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 Campbell, a bull 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.



The Hillhurst herd of Shorthorns, owned by the Hon. M. H. Cochrane, Hillhurst, P. Q., on the main line of the G. T. R., and only a miles from Hillhurst station, will be sold by auction on Thursday, April 28th, 1887. This herd, as many of our readers know, in former days was without a rival in the Dominion, and its history will ever form a most interesting chapter in the book of Canadian live stock lore. It is a dispersion sale of the Shorthorns, numbering some 45 head of Scotch and Booth topped families, and in addition, some 15 head of Hereford and Aberdeen-Angus young bulls and heifers will be sold. Of the Shorthorns, 6 females are descended from stock selected from the famous Ballywaller herd, Ireland, 4 from the even more famous herd of West Dereham Abbey, England, and 7 from the Howes herd, Annon, Scotland. Descended from and including an 1881 importation are 9 females, representing Kinellar, of which 2 are Siltynon Nonpareils, 1 Mantilini and 3 Darlington. Lord Aberdeen (70552), has headed the herd since 1881, being joined by the Collynie bull Heir Apparent (75300) in 1885. The young stock is nearly all from these Dominion Exhibition first prize winning bulls, and the females yet to come in are served by the same. The cattle are all recorded in the American Herd Book, and eligible for the Dominion H. B. Parties desirous of laying the foundations of good herds of Shorthorns should not let these cattle go out of the country. The expiration of lease of pasture lands is the reason of the sale. After the sale Mr. C. will have from 200 to 300 head of Hereford and Aberdeen-Angus Polls left. Catalogues now ready and furnished on application. See advt.

The sale of Booth Shorthorns, held by the Messrs. Thos. Nicholson & Sons, Sylvan, Ont., on the 8th March, was quite successful. The whole amount realized for the 24 animals sold was \$2041.00, or an average of \$85 each, but many of them were but young. The following are the particulars of the sale: Females—1, Countess of Sylvan, red and white, calved Feb. 2, 1879, to W. Armstrong, Moss-side, \$125; 2, 2d Countess of Sylvan, roan, calved April 20th, 1884, to Mr. Lithgow, Thedford, \$70; 3, 3d Countess of Sylvan, red and white, calved Feb. 9, 1886, to John L. Pierce, Walkerton, \$53; 4, 4th Maid of Sylvan, roan, calved Jan. 2, 1879, to W. Turnbull, Brewster, \$74; 5, Princess Royal, red and white, calved Oct. 9, 1884, to S. Wilcocks, Arkona, \$123; 7, 7th Maid of Sylvan, red and white, calved Dec. 8, 1883, to W. H. McDonald, Buda, \$136; 8, Mabel, roan, calved Jan. 2, 1885, to H. Shaw, Colville, \$100; 9, Gretchen, red and white, calved Aug. 24, 1885, to J. L. Pierce, Walkerton, \$75; 10, 12th Maid of Sylvan, roan, calved Nov. 1, 1885, to H. Shaw, Colville, \$77; 11, 14th Maid of Sylvan, red, calved Sep. 20, 1886, to J. Robson, Hberton, \$57; 12, Vacuna 6th, roan, calved Apr. 18, 1881, to E. Gaunts, St. Helens, \$171; 13, Vacuna 8th, red, calved Dec. 27, 1882, to J. Croone, Berman, \$80; 14, Vacuna 11th, roan, calved Sep. 16, 1886, to H. Shaw, Colville, \$63; 15, Sylvan, Friede 5th, red, calved June 11, 1878, to J. Garis, Greenwood, \$100. Males—16, Royal Rambler, red and white, calved June 21, 1884, to G. Underhay, Widder, \$100; 17, Prince Albert 2nd, red, calved Jan. 20, 1886, to D. Campbell, Amberley, \$124; 18, Taurus, red, calved Mar. 8, 1886, to M. Wellington, Camiache, \$41; 19, 15th Duke of Sylvan, red, calved Apr. 7, 1889, to A. Donald, Jencilo, \$73; 20, Widder Mounddale, roan, calved Apr. 1, 1886, to J. Ferguson, Thamesville, \$84; 21, 14th Duke of Sylvan, roan, calved Apr. 22, 1886, to F. Inch, Kerwood, \$111; 22, Valasco 11th, white, calved Apr. 23, 1886, to R. Laird, Thedford, \$75; 23, Valasco 12th, roan, calved May 9, 1886, to S. Wilcocks, Arkona, \$91; 24, 16th Duke of Sylvan, white, calved Oct. 12, 1886, to W. F. Smith, Strathroy, \$27. The sale was well attended and lasted only two hours, the bidding being brisk. The new stock bull, Warrior, weighed 1967 lbs., at 25 months and 11 days. The herd still numbers 40 head.

The stock of Mr. Jas. Hunter, of Sunnyside, Alma, Ont., are in fine shape, we never saw them look better. The Clydes are of the best type—thick, short, low set with great strength of chest and fore arm, wonderfully well ribbed up, and possessing bone of a very superior quality. All the young stock are from the stallion Gambetta (45), which stands at the head of the stud. Three of them are pure, and four in the appendix. The Shorthorns number from 75 to 80 head and are in fine shape. They all give evidence of that type which Mr. Hunter has constantly kept before his eye from the first, and which has enabled him to fill the show rings of so many lands with prize winners—that is, smooth, clean limbed animals, possessing good strong bodies on short legs, filled up full behind the shoulder, and possessing those fine strong coats of soft hair which are a sure indication of quality. The four-year roan cow Rose of Sunnyside, of the Mantilini Booth family, and the three-year roan Gaiety 2nd, of the Queen of the Mays, are both suckling fine calves. These cows were in the herd which won the prize at the Provincial, Guelph, 1886, as the best home bred herd, and also the Prince of Wales prize for the herd consisting of best five females. The show bull, Young Harry, has improved very much since the time of the show. The principal stock bull, British Flag—3323—descended from Mr. Aylmer's G. family, is a beautiful bull and is throwing some very excellent calves. A young 4 months bull, Signet, a red, of the Queen of the May family, sold to Mr. Walter Lynch, West-borne, Man., to head his herd, is, we believe, one of the best bulls individually in Canada to-day. Then there are bulls from 24 months and under, strapping big fellows without a cull in the lot, and each worthy of a place at the head of a herd. Indeed it seems too bad to let them go out of the country. A young roan bull calf, British Ensign, a Dec. calf, possesses all the attributes of promise of making a bull of uncommon merit. Mr. Hunter has accomplished the rare feat of retaining his prestige in the show rings of Canada for 17 years, and never did so well as last year, and with stock of his own breeding. The flock of Shropshires all on an imported foundation and consisting of 28 females, are looking very well, and have given 22 lambs to date (25th inst.), and five yet to come in. Some 5 rams coming one year are very good.

Holsteins.

The following appeared in the Michigan Farmer of 31st January: "C. V. Seelye, of North Farmington, sold last week to the Smith Bros., of Dundas, Ont., a draft of five head from his Holstein-Friesian herd. They consisted of two two-year-old heifers and three heifer calves. These animals were all sired by the noted bull, Ykema, and sold for a good round price. The Messrs. Smith propose to get together the best herd of this breed in Canada, and are spending time and money liberally in accomplishing it."

Messrs. M. Cook & Sons, Aultville, Ont., recently made the following sales from their herd of Holstein-Friesian cattle: First ones the well known bull Lord Byron 2241, who has so long stood at the head of their herd, and whose cut appeared in the JOURNAL of March, 1884, sold to J. C. Bowen, Fraserfield, Williamstown, Ont., at a long figure. Mr. Bowen is a practical dairyman: milks over 100 cows, and is now turning his attention to Holsteins as a means of improving the milking capacity of his stock: nor is he likely to be disappointed in them, while using a bull possessing such characteristics as are to be found in Lord Byron. D. M. Macpherson, the "cheese king," and president of the Eastern Ontario Dairyman's Association, has, after carefully looking over the field, selected the Holstein from the different competing breeds as a means of raising the standard in the dairy, and purchased of Messrs. Cook the bull Val Jumbo, possessing 50 per cent. same blood as the well known bull Lord's Jumbo, and in every way a handsome animal. When it is remembered that no man in Canada has had a better opportunity of comparing the merits of the different breeds for practical work in both factory and dairy, with an experience covering many years' observation of the different breeds, and their work, holding the controlling interest in over 60 different cheese factories in Huntingdon and Glengarry counties, the fact is significant as to the reputation this breed has attained among practical men in the face of strong opposition. Val Jumbo will be used by Mr. Macpherson for the improvement of his own stock on his farm at Lancaster, referred to in the March number of the JOURNAL. Next come the bulls Lord Byron 8th and Lord Byron 10th, sold to T. R. Lyons, Waterville, N. S., and D. F. & H. L. Brown, Kelso, Que. Mr. Lyons is among the pioneer breeders of Holsteins in western Nova Scotia, while the Messrs. Brown are among the first to introduce them in that excellent dairy county, Huntingdon. The Holsteins are more popular to-day than ever before.

Aberdeen-Angus

Mr. J. G. Davidson, under whose management for the last four or five years the Aberdeen Angus Polled herd of Messrs. Hay & Paton, of "Kinnoul Park," New Lowell, Ont., have carried the Toronto Industrial herd prizes on this breed, is now installed as manager of the stock of M. Boyd & Co. of "The Big Island Stock Farm," Bobcaygeon, Ont.

Jerseys.

Mr. E. J. Bruce, of Pittsfield, N. Y., who attended the City, deade Stallion Show in Toronto, is an extensive breeder of pure Jersey cattle. They number seventy head; all registered in the A. J. C. C., and also breeds Scottish Cheviot sheep for mutton purposes. The flock numbers 300 head. They are distinguished for their beauty, prolificacy and the superiority of the mutton. The principal stock ram, Lord Love, is said to be one of the best in the States. Another is Sir Walter Scott, unbeaten in the show-rings. Mr. B. has shipped Cheviots to 15 States, from Maine to Texas. Why do not our Canadians take more kindly to the Cheviots?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Agreeable to promise I send you a synopsis of the sale of Jersey cattle that took place at the farm of Mr. Jeffrey, three miles north of Toronto, two weeks ago. Mr. Jeffrey sold his 100 acres for \$330 an acre, to be laid out into building lots, and as he got such a handsome price for his farm, \$33,000, he decided to close out all his stock. He told me that it was with great regret he did so, as he found his Jerseys very profitable indeed. One was a mature bull, one mature cow, one cow three years old, four two-year-old heifers, the balance were yearlings and one bull calf. They realized an average of \$26.66, which, considering their age and the fact that they went into the hands, principally, of farmers, who have begun breeding Jerseys, is a very good return in these days, and will compare, I think, favorably with any public sale that has taken place in Canada within the last twelve months. The highest price paid was for a bull calf, a son of Canada's John Bull, who sold for \$500, and a heifer two years and nine months old, sold for \$460. The half-bred and grade Jerseys sold from \$75 to \$150 each, dependent upon showing strong characteristics of the Jersey blood. Only one realized less than \$100. When it is considered that two years ago such prices as these could be obtained for Jersey cattle in Canada, and considering that these went into the hands of farmers, who were buying them to breed dairy cattle, it is most encouraging to the Jersey outlook. OAKLAND, Hamilton, Can.

Guernseys.

Mr. S. Fisher, M.P., Knowlton, P. Q., is the owner of one of the best herds of Guernseys to be found on the south side of the St. Lawrence. It is, indeed, one of the few herds of this fine dairy breed to be found in Canada. Mr. Fisher showed at Knowlton, P. Q., last autumn, one year bull which weighed 1830 lbs., and one 2-year which weighed 1285 lbs., only in good service order. A 6-year cow and 3-year heifer were shown at the same time, and the exhibit attracted much attention. The 3-year bull, Mr. Fisher writes, has been fatted, and will weigh by the end of March fully 2100 lbs. The heifer, Vanessa, No. 2100, A.G.C.C., calved Feb. 20th, and Mr. Fisher had the milk weighed from Feb. 23d and on, until she was dried, 29th Jan., 1887. The following is the record: She gave during February (six days) ... 127 lbs milk Average 21 lbs. March... 230 1/2 " " 23 1/2 " April... 671 1/2 " " 23 1/2 " May... 718 1/2 " " 23 1/2 " June... 735 1/2 " " 24 1/2 " July... 680 " " 22 " August... 663 1/2 " " 21 1/2 " September... 542 " " 18 1/2 " October... 382 " " 12 1/2 " November... 279 1/2 " " 9 " December... 330 " " 10 1/2 " January, to days... 115 " " 11 1/2 "

She was then milked once a day until January 20th, giving 123 lbs. in 19 days, or an average of 64 lbs. The total of milk in 342 days is 6099 1/2 lbs. She was again due to calve on March 15th, to the two-year stock bull, No. 927, A. G. C. C. She was fed well during the test, but was not fatted.

Ayrshires.

The young Ayrshire bull owned by Mr. W. E. Ware, of Hamilton, Ont., and advertised in the last No. of the JOURNAL, is developing into an uncommonly fine specimen of the Ayrshire

POULTRY.

EGGS from P. Rocks (Pilgrim strain), Light Brahmas (1st prize strain) \$1.00 for 13. Cash to accompany orders. Eggs carefully packed and shipped in barrels. Satisfaction guaranteed. Address, G. H. RICHMOND, 91 Victoria Ave. N., Hamilton, Ont.

P. G. KEYES, Ottawa, Ont., breeder of STANDARD WYANDOTTES. Average score of breeding pen, 92 3/5 points. Eggs, \$2 per 13. Stock for sale. Write. apr-1

J. C. McKAY, Georgetown, Ont., Breeder of high class poultry. White Plymouth Rocks, eggs per 13, \$3.00. Plymouth Rocks, average score 92, per 13, \$2.00. Silver Spangled Hamburgs, all prize birds, \$1.50. apr-1

WHITE LEGHORNS EXCLUSIVELY.—I make a specialty of this breed, and am at all times prepared to furnish No. 1 stock. Eggs, \$1 per 13. Correspondence a pleasure. Address, GEO. LEE, Highgate, Ont. apr-1

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 13. Also W. Leghorn eggs (Sulistiff's strain) \$1 per 13. H. W. G. SIBBALD, Meadowdale, Ont. apr-3

SPRING CREEK POULTRY YARDS, ABERFOYLE, 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

FOR SALE—A large lot of exceptionally good Plymouth Rock Cockerels, of Mr. James' (Sherbrooke, P. Q.) Pilgrim strain. Eggs for setting in any quantity and cheap. THOS. SHAW, Woodburn P. O., Wentworth Co., Ont.

FOR SALE

12 varieties of Poultry. Mammoth Bronze Turkeys, 1 Loupue and Brown China Geese a specialty. One Cleveland Bay Stallion, imported in August, 1886. Also, Abyssinia Oats for seed—48 lbs. measured bushel. I sowed 17 lbs, they grew 21 bushel. Send 3 cent stamp for particulars, to MAJOR THOS. HODGSON, Myrtle P. O., Ont. feb-3

WESTMINSTER POULTRY FARM

J. W. BARRIETT, 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 13 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 13.

ROYAL POULTRY STOCK CO.

STOCK imported and bred from best poultry farms in America and England. Large variety of fowls.

EGGS FROM \$1 TO \$3 PER 13

Private directions for successful hatching sent free to customers. Fair hatch guaranteed or second hatch sent free. This company guarantees to produce exhibition fowls from eggs sold for this purpose. Express charges paid on two settings and upwards. Address, Royal Poultry Stock Co., apr-1 P. O. Box 133, Harriston, Ont., Can.

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 cheap 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. apr-2

THE BARTON POULTRY YARDS,

A. G. H. LUXTON, Hamilton, Ont.

Breeder of Light Brahmas, Buff Cochins, B. B. Red Games, Black Hamburgs, W. F. Black Spanish, Black Javas (imp.), Houdans, Plymouth Rocks, White and Brown Leghorns, and Golden Sebright Bantams. Eggs, first 5 varieties, \$2, others, \$1.50, except Javas, \$2.50, per setting. All eggs warranted fertile and pure. Send for list of prizes won at Toronto, Guelph, Hamilton, Caledonia, Barton and Glanford. My birds that are not imp. are direct from imp. stock. Some very fine W. F. Black Spanish cockerels, \$1.50 to \$2.50 each; 4 choice Houdans—2 pullets, hen and cock, \$6; also 2 thoroughbred Ayrshire cattle, beautiful color, bull and heifer, both registered and from imp. stock.

STOCK AND EGGS FOR SALE

From the celebrated MOUNT PLEASANT STOCK AND POULTRY 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. apr-3 F. W. HODSON, Brooklin, Ont.

breed. The sire of this calf, now one year old, was Mark Hill, a half brother of the famous bull Sultan (1288), once owned by Mr. Ware, afterwards by Mr. T. G. Nankin, Ottawa, and engraved in the May No. of the JOURNAL, 1885, p. 121. His dam is Lady Cline, a neat, pretty cow. This calf is marked very like Sultan, which at one time was sold for \$500, and promises to make as good a bull. We have seldom ever seen so handsome an Ayrshire calf.

Swine.

Messrs W. H. & C. H. McNish, Lyn, Ont., write: "Since our last report we have made the following sales of pigs: 8 head to John Davidson, Ashburn; to A. W. Callender, North Gower, 1 boar; C. Edgar Whidden, Antigonish, N. S., 1 sow; E. W. Ware, Hamilton, 1 sow; W. S. Cuthbert, Hammond, N. Y., 1 boar and 2 sows.

Mr. F. W. Hodson, Prook, Ont., writes: "My stock has come through the winter well. The demand for Cotswolds and Berkshires has much improved during the past year. I have a good lot of each now on hand and a very superior lot of fowls, all of which are laying well. Our stock is all imported, or bred from imported stock. Mr. Hodson is also Dominion agent for Dana's cattle, sheep and swine labels. See advertisement of this, and also of his stock.

Poultry.

Mr. Wm. B. Cockburn, Aberfoyle, Ont., writes: "I have sold to George N. Shaw, Hawkstone, 1 Pekin drake; to J. C. Chadwick, Guelph, 1 Rouen, and to J. Foster, Aberfoyle, 1 Pekin. I have also purchased a trio of Brown China geese. My poultry are doing fine—ducks laying well since first week in March."

FOR SALE—October Berkshires—Boars and Sows, with 11 and 12 crosses of pure blood, descended direct from Snell's importations. Good individually. THOS. SHAW, Woodburn P. O., Co. Wentworth, Ont.

UNION POULTRY YARDS

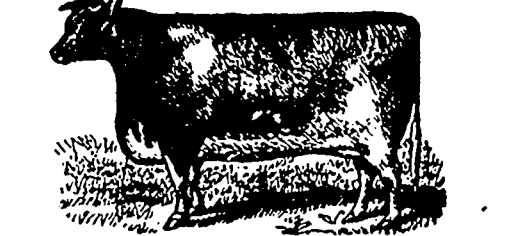


WE will sell eggs from Houdans, Silver Spangled Hamburgs, Light Brahmas, Plymouth Rocks, Wyandottes, Brown Leghorns and White Crested Black Polands for \$2.00—PER SETTING OF 13—\$2.00 Write for description of pens and any other information required. Address,

JAS. BUTCHER & R. F. IVEY, JARVIS, ONT.

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(2 1/2 miles south from Paris.)



BREEDER of Shorthorn Cattle, all registered in the new Dominion Herd Book. The highly bred Bates bull, 10th 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.

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

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.

Parties writing to advertisers will please mention the JOURNAL.

IMPORTANT AUCTION SALE

DISPERSION OF THE

Hillhurst Herd of Shorthorns

The undersigned, whose lease of extensive pasturage is about expiring, will sell at public auction, without reserve, at

HILLHURST FARM, HILLHURST, P. Q.,

ON THURSDAY, APRIL 28, 1887

HIS ENTIRE HERD OF HIGH-CLASS SHORTHORNS,

Consisting of about forty five (45) head of Scotch and Booth-topped families, including **Four Imported Cows**, bred by S. Campbell, Kinellar, Aberdeenshire, with produce by the prize bull **Lord Aberdeen 70552** (see illustration in JOURNAL for February), bred at Kinellar and **Heir Apparent (51380)**, bought of W. Duthie, Collynie, Aberdeenshire, which are among the five bulls to be offered. The Cows and heifers old enough will all be in calf to the above named bulls or with calves at foot.



15 Head of HEREFORD AND ABERDEEN-ANGUS

YOUNG BULLS, HEIFERS AND POLLED CROSSES will also be offered.

SALE TO BEGIN AT 1 P. M.

TERMS—Seven months' credit on approved notes. Catalogues ready March 15th, and will be sent on application to



M. H. COCHRANE, HILLHURST, P. Q.

IMPORTANT PUBLIC SALE

HIGH-CLASS SHORTHORNS

On TUESDAY, JUNE 7th, 1887,

We will sell at Public Auction, at our farm "THORNVILLE," 5 miles south of London, Ont.,

30 HEAD OF FIRST-CLASS SHORTHORN CATTLE—25 Cows and Heifers and 5 Bulls, of the popular Scotch sorts, 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 (50587). 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.

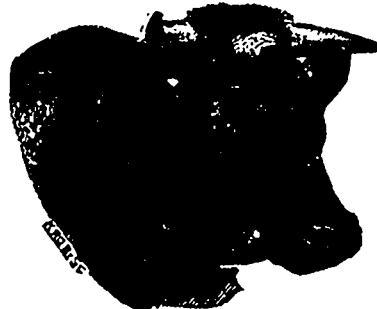
ARTHUR JOHNSTON, Greenwood, Ont., Can.



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.

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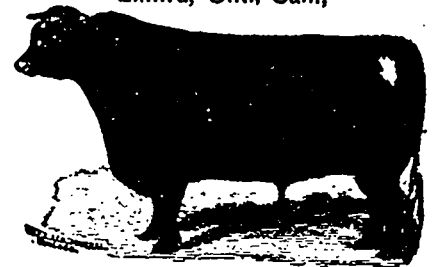


BREEDER AND IMPORTER OF

Shorthorns, Clydesdales, and Shropshire Sheep.

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

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



Importers and Breeders of SHORTHORN CATTLE.

The highly-bred Booth bull Lord Monrath—2298—, is at the head of the herd. Lord Monrath was bred by Sir Hugh Aylmer, of West Dereham Abbey, Stokeferry, Norfolk, Eng. The Mantilina, Lady Day, Roan Duchess and Princess strain. Young stock always on hand for sale. Correspondence solicited.

12 YOUNG BULLS FOR SALE.

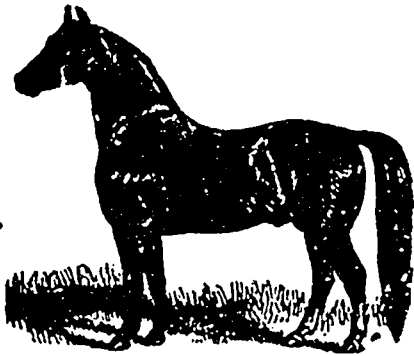


WE are offering perhaps the best lot of young bulls we ever had, several now fit for service. Amongst the number are some choice show bulls. All are of good colors, well grown, on straight legs, and carry a lot of natural flesh.

**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.

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 looking 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 Rosicrucian, dam, U'mberia, by Camerino, 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 Stockwell, The Baron, Irish Bird Catcher, Whalebone, etc.

SIMON BEATTIE, Thornhill, Ont.

FOR SALE.

25

IMPORTED

CLYDESDALE

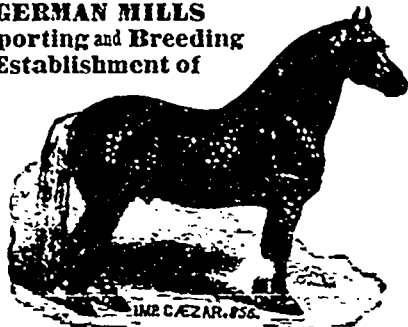
STALLIONS and MARES

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.

GERMAN MILLS
Importing and Breeding
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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 1887-88. Also a choice lot of half and three-quarter bred stallions, different ages. Also a few superior young bulls and heifers from our show cows. Person inspection invited. Railway station at German Mills, on Galt branch Grand Trunk Railway.

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

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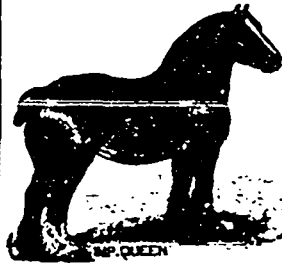
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Sixteen imported Clydes on hand, nearly all of them prize winners in Scotland, and of which four are stallions. The above are

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along with a few Canadian bred. Visitors welcome.

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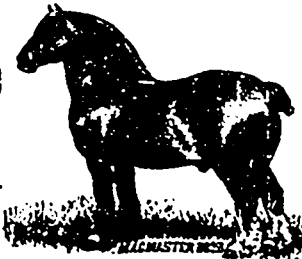
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FOR SALE



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.

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CLYDESDALE

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

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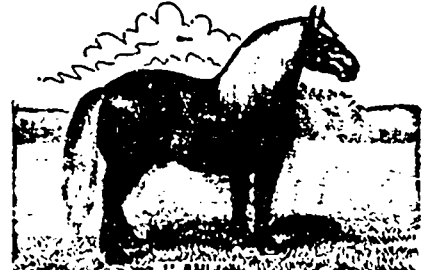
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The splendid bulls Lord Byron (1881) and Crown Prince (1876), both recorded in the D. S. H. B., are offered for sale, along with a number of good grade cattle. The former has been three years the stock bull at Beachwood, and has left some fine stock. The latter a dark red, calved Jan 24th 1884 got by Brilliant (1871) dam, Mite by Bedford Lad (1871) has also proved himself a good and sure sire. 2 Miles from Chatham on the G. T. R.

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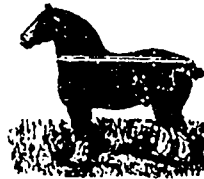
Importers and Breeders of French Draft and French Coach Horses. We have now over 75 head of imported French Draft Stallions and Mares on hand. Our importations this year have been selected from the best breeding district in France. Our stock is all recorded in France and in the National Register of French 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.

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ON REASONABLE TERMS.



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Catalogues will be published shortly.

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Aug. 21, '86.

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JAMES DEANS,
Spruce Farm,
Box 9, Paris Station P. O., Co. Brant,
Ont., BREEDER OF
SHORTHORN CATTLE



Two young bulls for sale, sired by Brigade Major - 509 -
Two miles west from Paris Station, on two lines of the G. T. R.
Visitors met at the station.

FOR SALE



The Imported Cruickshank
Shorthorn Bull.

DUKE OF LAVENDER

He is well filled in front, broad, deep and low, broad in the back, a good handler and easily kept, also

FIVE BULL CALVES

of his get, and all will be sold very reasonable. The dam of one of these young bulls, Crimson Flower 2nd, is the dam of a bull shown by A. Johnston, Greenwood, at the Industrial Exhibition, Toronto, winning first prize, and afterwards sold to a United States breeder for \$500.

For further particulars come and see or write to

DAVID BIRRELL,
Greenwood, Ont.

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 30 months old, including the pure Booth Commander-in-Chief—the others are mostly Booth blood—are now offered for sale.

TERMS REASONABLE.

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A CHOICE LOT of young Cows and Heifers, in calf by the young Cruikshank 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 cattle 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 on write. Visitors welcome.

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Aurora Station, N. & N. W. R., 37 miles north of Toronto, shipping station.

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PRINCE JAMES,

The highly-bred Shorthorn bull, winner of 7 silver medals, 3 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.

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.

100 PURE-BRED ABERDEEN-ANGUS CATTLE.



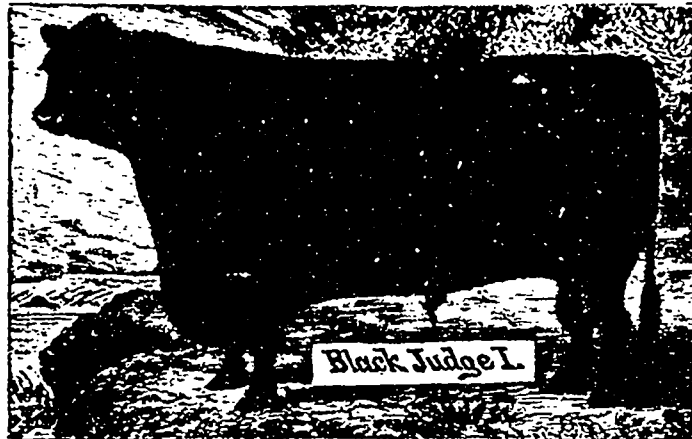
MOSSON BOYD & CO., BIG ISLAND STOCK FARM,

BOBCAYGEON, ONTARIO, CANADA. Erica, Prides, Windsors, Victorias, Sybils, Kinnochtry Bluebells, Westertown Roses, Ballindalloch Coquettes, and Lady Fonnys, and animals of other good families, both male and female, for sale.

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

CANADIAN HOME OF THE ABERDEEN ANGUS-POLL

UNCONQUERABLE



BLACK JUDGE (1)

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

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

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

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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, COOMESHIRE, P. Q.

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



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

Young Stock, Imported and Home-bred, for sale The Geary Bros. Co'y, Bothwell, Ont.

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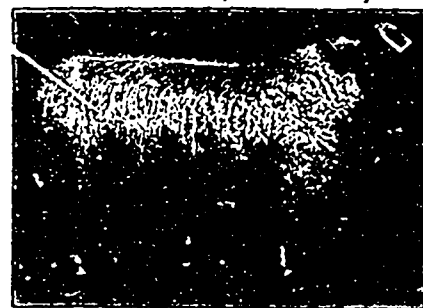
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FEEDING ANIMALS. By Prof. E. W. STEWART.

THIS is a practical work upon the science of feeding in all its details, giving practical rations for all classes of farm animals. It is not only the best book upon this subject, but it is the only book giving careful details of rations and food values as applied to the feeding of all classes of stock. It will pay any body having a single horse or cow, or who feeds a few pigs or sheep, to buy it and study it carefully. No farmer can afford to be without it. Price, 5s, post paid, from this office, or will be sent to any person forwarding us four new subscribers to the JOURNAL for 1887.

Address, STOCK JOURNAL CO., Hamilton, Ont.

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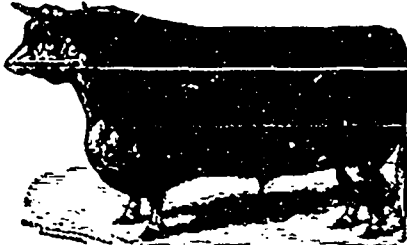


THIS herd embraces over fifty head of choice animals. All registered. Catalogues sent on application.

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

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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.

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

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

G. F. BENSON, Cardinal, Ont.

THE TUSHINGHAM HEREFORDS

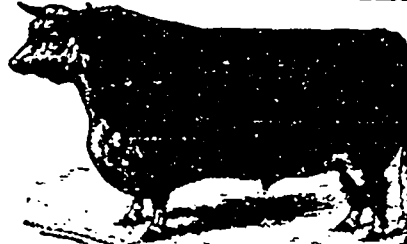


THIS herd, grounded on selections from the best blood in England, is remarkable for the cumber and uniformity of the good calves that it has produced during the three years of its existence, owing in a great measure to the excellence of the stock bull Tushingham (S127), by Charity 3rd (6350), by The Grove 3rd (5051). This bull is now offered for sale, with several youngbulls of his get.

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

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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 Carcio.

Also a fine lot of imported Welsh and Shetland Ponies for Sale.

E. W. JUDAH.

"Lowlands," HILLHURST, P. Q.

JAMES DRUMMOND,

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Importer and Breeder of PURE-BRED

AYRSHIRE CATTLE



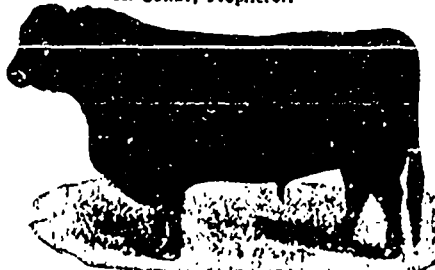
Of Large Size, and from Choice Milking Strains.

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.

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IMPORTERS AND BREEDERS OF GALLOWAY CATTLE AND PLYMOUTH ROCK FOWLS.

Galloway Bulls, Cows and Heifers for sale. H. SORBY, Proprietor, Gourock, Ont.

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Importer and Breeder of Thorough-bred
Herd headed by the noted prize-winner Prairie Aaggie Prince, H. F. H. B. No. 2, first prize at the Industrial and Provincial in 1886, dam Prairie Flower, 5 yr old butter record of 30 lbs 1 oz. unsalted butter per week. This herd has been crowned with more honors in the show-ring than any other herd in Canada. Selections made from the finest herds and most noted milk and butter producing families in America. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto, "QUALITY." Stock for sale. Visitors welcome. Correspondence solicited.

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



Cows with well-authenticated test of from 24 lbs. to 24 lbs. 13 oz. in one week, and from 81 lbs. to 105 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.

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BREEDING OF PURE

HOLSTEIN AND FRIESIAN CATTLE A SPECIALTY.

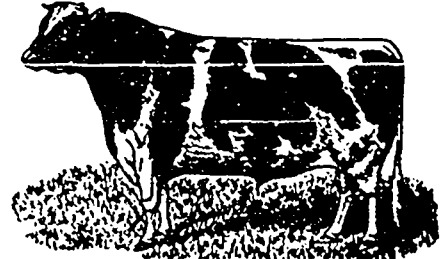
We have the only pure breed of Aaggie Stock in the Dominion, the head of our herd being Sir James Aaggie, No. 145, H. H. B., Vol. 6. Also Aaggie Ida, No. 2600, H. H. B., Vol. 6. This family is noted for its exceptionally fine milk producers.

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

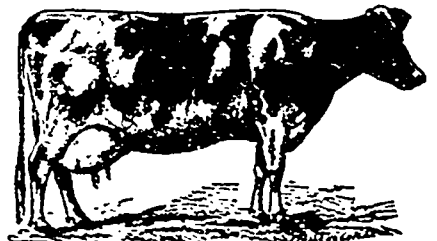
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Importers and breeders of SUPERIOR STRAINS OF HOLSTEIN-FRIESIANS



Herd headed by the famous bulls: Sir Archibald, whose dam, Krontje, has a record of 951 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's, Barrington 4007, out of Jennie B, who has a milk record of 831 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.

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.

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

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

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

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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 Shorthorn, Berkshire and Suffolk Pigs. Imported Bates bull Statira Duke 5028 at head of herd.

Stock won 143 prizes at three fairs this fall.

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The Simplest

The Neatest

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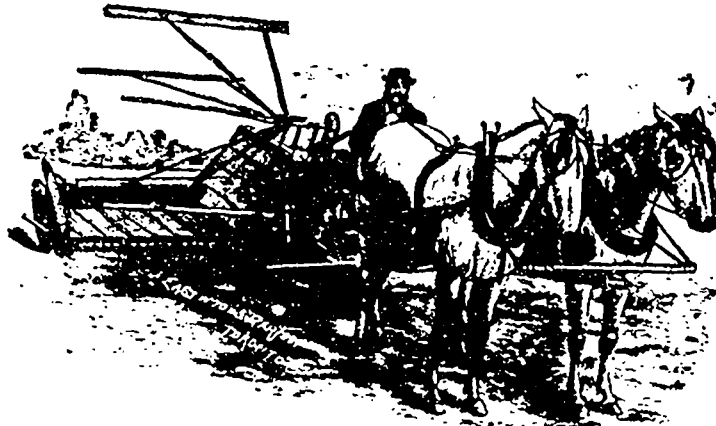
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THE LATEST AND SIMPLEST KNOTTER. THE STIFFEST AND STRONGEST STEEL BAR.

NEW AND SIMPLE REEL. THE MOST PERFECT MACHINE IN THE MARKET.

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HAMILTON CATTLE FOOD.



Nine years of trial has enabled us to guarantee the following results when fed to the different classes of farm stock:

On Horses.—It speedily improves the general tone, spirit and appearance, loosening the hide, and producing a fine, glossy appearance. Indigestion, and consequent scouring, never occur when our Food is being given.

On Cattle.—It greatly accelerates the fattening process by securing the thorough digestion of the ordinary food consumed, and its complete assimilation. This is shown by the fine, glossy appearance of the animal, and their rapid increase in weight, and also in the absence of all offensive odors, the result of the passage of a large portion of the food undigested.

From cows newly calved, the quantity of milk is increased at least 50 per cent. Calves will thrive well on less milk when getting the Food. It may be fed to yard cattle in winter with great advantage, as salt is usually fed.

On Sheep.—Its effects are very marked, either in producing flesh or increasing the flow of milk for lambs. Sheep thus kept in good heart have more and better wool.

On Pigs.—Its results are truly wonderful. When fed regularly and without stint they will fatten in one-third less time.

On Fowls.—When fed regularly the increase in the product of eggs, especially in the winter season, is surprising. There is also less tendency to disease.

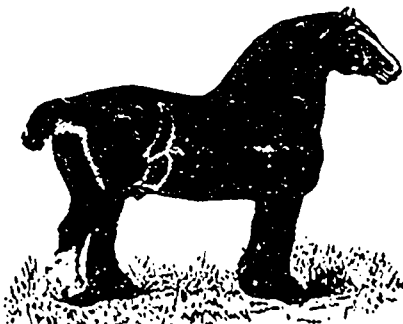
Many leading stockmen now purchase by the hundred lbs., and in all the provinces, finding it pays them to do so.

This food contains no antimony, arsenic, copperas, or poisonous ingredient, but as there are many cheap preparations in the market, and sold under the name of our Food, purchasers should see that our Trade Mark and Silver Medal are printed on every bag, and be sure it was MANUFACTURED IN HAMILTON ONT.

For sale by leading merchants in every town and village in the Dominion in quantities of from 5 pounds to 100 pounds, at 4c to 6c per pound, according to quantity purchased. \$4.00 per cwt. Special quotations in large lots. If you fail in getting the genuine article, write to

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Shorthorn Cattle and Berkshire Hogs

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

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

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TREATED in a thorough and practical manner, by PROF. T. E. W. STEWART, in his newly-published work on "FEEDING ANIMALS."

This excellent work will be sent to any address, post-paid, on receipt of publisher's price, \$2.00.

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NOTICE.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Indian Supplies, will be received at this office up to noon of SATURDAY, 30th April, 1887, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1888, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, etc., duty paid, at various points in Manitoba and the North-West Territories.

Forms of tender containing full particulars relative to the Supplies required, dates of delivery, etc., may be had by applying to the undersigned, or to the Indian Commissioner at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately or for all the goods called for in the Schedules, and the Department reserves to itself the right to reject the whole or any part of a tender.

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

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

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

When implements of a particular make are mentioned, it is because the articles so designated suit the Department for the purpose required better than others. In such cases the competition between tenderers must, of course, be in the transportation to the place of delivery.

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

Tenderers will please note carefully the following conditions:-

- 1. Supplies will not be paid for until the Department has been assured of the satisfactory delivery of each article for which payment is claimed.
2. No tender for supplies of a description different to that given in the index will be considered, and supplies which are found, on delivery, to be of a kind or quality different to those described, will be rejected by the agents of the Department; and the contractor and his sureties will be held responsible for any loss entailed on the Department through failure to deliver in accordance with terms of contract.
3. It must be distinctly understood that supplies are to be delivered at the various points for the prices named in the tender, that no additional charge for packing or any other account will be entertained, and that an invoice must accompany each separate delivery of supplies. An invoice for each separate delivery must also be sent to the Department of Indian Affairs at Ottawa, and one to the Indian Commissioner at Regina, if the supplies are for the North West Territories. When the supplies are for points in the Manitoba Superintendency the triplicate invoice should be sent to E. McCall, Winnipeg.
4. Prices must be given for articles to be delivered at each point of delivery named in the Schedule for each article for which a tender is submitted, and not an average price for each article at all points of delivery; no tender based on a system of averages will be considered.
5. Tenderers should understand that they must bear the cost, not only of sending their samples to the Department of Indian Affairs, but also freight charges incurred in returning such samples to the tenderer.
6. When supplies are to be delivered "equal to sample," tenderers should understand that the sample is to be seen either at the Department of Indian Affairs, at the office of the Indian Commissioner at Regina, at the office of the Inspector in charge at Winnipeg, or at any one of the undermentioned Indian Agencies.

MANITOBA

Table listing names and locations in Manitoba: H. Martineau (The Narrows Lake Manitoba), F. Ozettec (Portage la Prairie), A. M. Muckle (St. Peters), R. J. N. Pither (Fort Francis), Geo. McPherson (Assabaskasing), John McIntyre (Savanne), J. Reader (Grand Rapids), A. MacKay (Beren's River).

North West Territories

Table listing names and locations in North West Territories: J. A. Markle (Birle), J. J. Campbell (Moose Mountain).

Table listing names and locations in North West Territories: A. McDonald (Crooked Lake), W. S. Grant (Assiniboine Reserve), P. J. Williams (File Hills), J. H. Lash (Muscowpetung's Reserve), H. Keith (Touchwood Hills), J. M. Rae (Prince Albert), J. A. MacKay (Battleford), G. G. Mann (Onion Lake), J. A. Mitchell (Victoria), W. Anderson (Edmonton), S. B. Lucas (Peace Hills), W. Pocklington (Blood Reserve), M. Begg (Blackfoot Crossing), W. C. de Balinhard (Sarcee Reserve).

and that no attention will be paid to a sample of any article which may accompany a tender, if a standard sample of such article is on view at the Department of Indian Affairs, or any one of its Offices or Agencies aforesaid.

7 These Schedules must not be mutilated—they must be returned to the Department entire even if the supply of one article only is tendered for—and tenderers should in the covering letter accompanying their tender, name the pages of the Schedule, on which are the articles for which they have tendered.

The lowest or any tender not necessarily accepted.

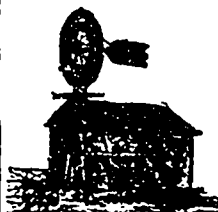
L. VANKOUGHNET,

Deputy of the Superintendent-General of Indian Affairs.

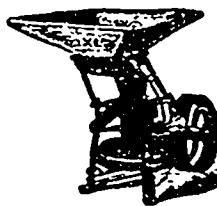
Department of Indian Affairs, Ottawa, Feb., 1887.

ONTARIO PUMP COMP'Y

TORONTO, ONTARIO.



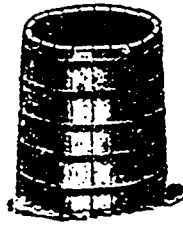
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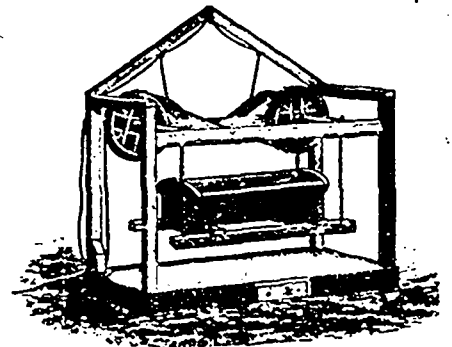
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Load Elevator.



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THIS ELEVATOR has been fully tested and proved superior to all other Elevators in the market for hay, grain, etc. It can be used in any barn or in stacking; adapts itself to any length of load, and can be managed by one horse, one rope operating both wheels. It takes less rope than other lifters, and each end of the load moves simultaneously. It is strong, being constructed without pulleys. There is but little wear on the ropes.

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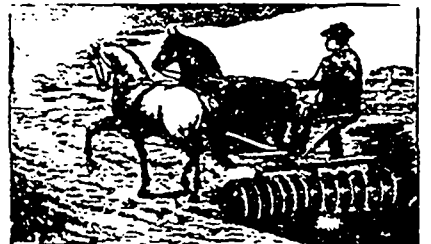
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THE BEST IN THE WORLD

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