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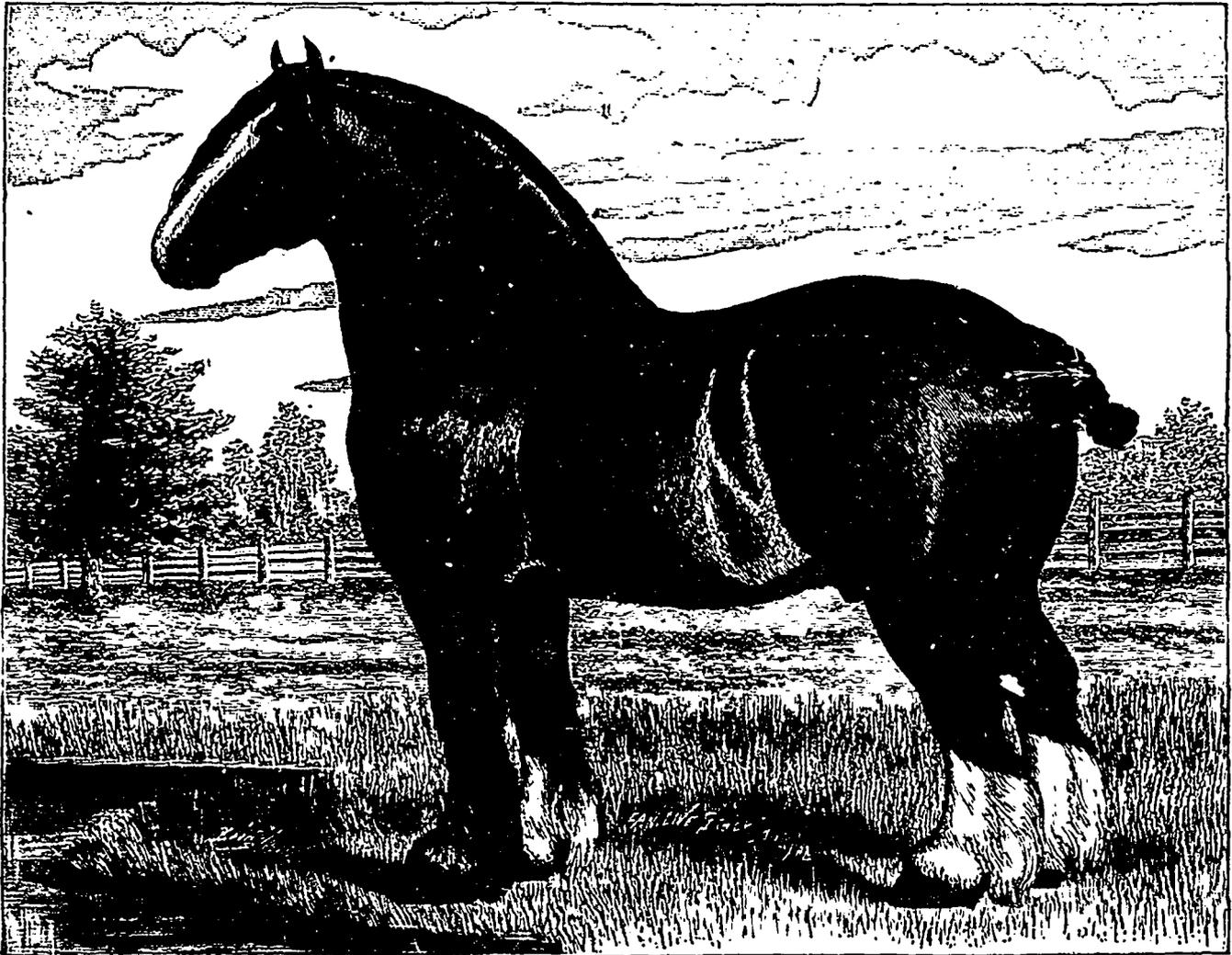
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THE IMP. CLYDESDALE STALLION PRIDE OF AVON.

The property of Mr. Wm. McKay, Morewood, Ont.

The Stud at Morewood.

Some years ago first-class heavy horses were confined to a very limited number of the counties of Canada, but that day has gone by for the present, and we trust for all time. Here, there, everywhere, we find enterprising men engaged in breaking fresh ground by introducing stallions of a superior order, into localities where they are much needed, which cannot but react beneficially in the general improvement of horse-breeding. In the front rank of these in his own county (Dundas), is Mr. Wm. McKay, of Morewood, the owner of the magnificent stallion which forms the subject of the above sketch. Not content with the introduction of a Clydesdale, Mr. McKay and his associate, Mr. Kinkaid, own a trotting stallion and a Percheron, each one good of its kind. They have made large provisions to meet the various tastes of lovers of the horse in that locality.

The Clydesdale stallion, Pride of Avon, is a dark bay. He is six years old, stands $16\frac{1}{2}$ hands high; girths 8 feet around the heart, and 8 feet 4 inches around the flank. He possesses great lung capacity, his quarters are well let down behind, and are very

muscular; with legs flat, short and cordy, and grand hoofs to carry his body; his skin is thin, indicating a good constitution. His disposition is gentle, with no inclination to viciousness; his action is good, and his weight is 2150 lbs.

He was imported by the Messrs. Innes and Horton, Clinton, Ont., and when one year old was sold by his breeder, Mr. Vallance, Greathill, Evandale, Lanarkshire, Scotland, for the sum of £230, and was afterwards sold by his buyer, Mr. Young, Netherwood Bank, Dumfries, at a handsome profit, to Mr. McCubbing, Drum, Lochrutton. He was sired by Cedric (1087), by Prince of Wales (673), by General (322), by Walter Scott (797), by Old Clyde (574), by Scotsman (754)—a strong chain of famous links. His dam, Jean, is by Premier (595), by Bob Burns (105), by Victor (862), by Farmer (284), by Gleaner (338), by Young Champion (973), by Bromesfield Champion, (65)—a chain almost as strong. In 1887 he was first at Ayr, in Scotland, against 57 competitors, and first at Dalbeattie in a ring of 26. In 1883 he took first at the Industrial, Toronto, competing against 27 colts, also the silver medal and diploma as best horse of any age on the ground, in a field of 97 entries. The same year he was first at the Provincial, Guelph, and at Clinton, Seaforth and Brucefield. From a Clinton exchange we learn that he has left exception-

ally fine stock in that locality, and his colts have won many prizes. It took \$2,025 to get him away from Huron County to the County of Dundas.

Mambrino Spangle, the high-bred trotting stallion, is a golden chestnut, stands $16\frac{1}{2}$ hands high, weighs 1,300 lbs., has strong bone, superior style and finish, and possesses in a happy equilibrium the qualities of substance, beauty, gentleness and purity of gait. He traces through the best class of speed producing trotting crosses to the thoroughbred, and is registered in vol. v. of the National Register. Foaled July, 1880, sired by Waldron's Mambrino, dam by Sranger; record 2.32. The 2d dam is by Sherman Morgan, with two performers in the 2.30 list. Waldron's Mambrino, foaled 1877, is by Fisk's Mambrino 2.14, which cost \$12,000 in cash, and has four performers in the 2.30 list. Mambrino is by Mambrino Chief, the founder of the Mambrino family, and stands next to Rysdyck's Hambletonian as a speed-producer. He traces back to imported Messenger. His dam is by Marshal Chief with two performers in the 2.30 list, and dam by Pilot jr., with nine performers in the same list, Pilot jr. is also sire of the dams of Maud S., 2.08 $\frac{1}{2}$, and Jay-Eye-See 2.10. The third dam is by Harris's Hambletonian, by Bishop's Hambletonian, by imported Messenger. The Percheron stallion Leonard 1102 (3208), foaled 1877, was imported from France 1882, is a dapple grey in color, and stands $16\frac{1}{2}$ hands high, weighs 1,885 lbs. and, like the Clyde and the trotter, has proved himself a serviceable horse.

Canadian Live-Stock & Farm Journal

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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, 13c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines \$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c. Contracts broken by insolvency or otherwise will revert to the usual rate of 18 cents per line per insertion.

To Correspondents.—All communications intended for publication in the JOURNAL should reach us by the 20th of each month—sooner if possible. We do not hold ourselves responsible for the opinions of correspondents.

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

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

HAMILTON, CANADA, APRIL, 1888.

THERE have been several instances this present season in which sales of live stock have been held in this Province on the same day. This is most unfortunate for all concerned, and may easily be avoided. We will open a column in the JOURNAL for a list of such dates if our patrons will only furnish the information. During the month of March the sales of Mr. T. C. Patteson, Eastwood, and Mr. George Thompson, Alton, were held on the same day. Some of our patrons have adopted the plan of announcing in our columns dates of intended sales some months previous, but these notices have never been placed under one distinct heading, for the reason that they have not been sufficiently numerous. If all those who are advertising sales would furnish the information the list would always be a good one, and would be looked for as regularly as any other information. No two sales need thus be held on the same day, and the very announcement of the fact would be a standing advertisement every time it appeared.

FARMERS, as a rule, do not apply that close calculation to the management of their business for which the manufacturer is proverbial. If they did they would fare better. True, they have a more difficult task than the former, for when they apply a coating of manure to a field they cannot tell what proportion of it will be eaten up by the first crop, nor how much by the second. But if they would cultivate this habit of counting the cost as nearly as they can their findings would be at least approximately correct. This is a species of book-keeping that is not to be learned at commercial colleges but in the fields of experience and common sense. If the habit were but cultivated its utility would be more and more apparent, and the pleasure found in it would increase. It is not very satisfactory to carry on a mixed system of husbandry during, it may be, the whole of a life, and yet not be able to tell which departments of the business were the most or least profitable. Young men, make a prac-

tice from the first of getting at the root of everything relating to the profit and loss of your business.

At the Ontario fat stock shows a noticeable feature of the exhibit is the almost entire absence of animals in competition in the cattle classes other than Short-horns, and Shorthorn grades. This is all the more remarkable when we consider that some of the finest Hereford and Aberdeen-Angus herds on the continent are owned in Ontario and Quebec, and some of the ablest cattlemen on the continent are in charge of them. We look upon it as very unfortunate for the extension of these breeds in this country that it is not more clearly demonstrated to the people (we mean in the ocular sense) what they are capable of doing. That they are capable of fighting keenly contested battles in the show rings of Britain and America, and of winning victories, has been demonstrated over and over again. If the owners of these cattle expect that they will be extensively used for grading purposes, it behooves them to demonstrate to the multitude that they are capable of being so used to advantage. There is no demonstration equal to that which is ocular, hence the importance of giving early attention to our suggestion on the part of those who are engaged in breeding them.

LINE breeding, although it has its stout defenders, is not so popular to-day as during the past decades. The age is waning when men become enamored of a good pedigree only. They are now disposed more than ever to splice onto this a good animal. Numbers are able by line breeding, for a term to make improvement, then comes a time when this ceases, and if line-breeding is persisted in there is retrogression. The difficulty seems to be to get out of line-breeding where it has been practiced; that is, to know just when to make the out-cross and how to make it. It seems to us that this knowledge is the consummation of the breeders' skill; but who, we ask, have shown here that they were masters of the situation? Bates cattle were brought to a high state of excellence in the time of their famous fashioner, and so the equally noted Booth strains. But who has shown that he possesses the magical skill requisite for steady improvement on either of these families, and are not the Cruikshank cattle approaching the same era of non-improvement on themselves? Here, it seems to us, opens out a field for the ambitious breeder, wide as the shoreless ocean. The breeder who, with the materials fashioned by those famous moulders, can so blend them as to produce a type an improvement upon all those, will have made himself immortal.

SOME breeders are enthusiastic in their efforts to improve their stock, when there is good demand for it in the market, but their enthusiasm fluctuates with market values. Those men will seldom sit on the highest pinnacles of success in their respective lines of breeding. This requires an enthusiasm much more enduring and more regular in its exercise. When one has satisfied himself that the breed he has selected is one that will give on the whole a profitable return, his energies should be concentrated upon their improvement. Market values which ruled high when his investments were made have gone down, and in the period of depression he feels like deserting the ship, but if the breed has merit these values will improve. If, taking periods of depression and of prosperity together, the returns have on the whole been satisfactory, the breeder should be satisfied. This should be a sufficient incentive to encourage him to continue to apply his best energies in perfecting the work of his choice. No one ever yet attained

highest excellence in any line, who is much given to change, and the thought of this should tend to strengthen continuity of purpose. To the man who really loves his work and is wedded to it, the very thought of changing for some other line is repugnant to his desires, and cannot be entertained without begetting a feeling of positive discomfort.

THE tendency in all animals in breeding is to revert to original types. If these types are of the improved sorts, this fact may be utilized with much advantage, but where this is not the case, the injury done by careless selection in the choice of a male may hamper the breeder during a good portion of the future of his days. The longer the term during which the manifestation of fixed characteristics has been apparent, the less the danger of this reversion. Long pedigrees, therefore, are always preferable to short ones, other things being equal. The certainty of getting animals of such and such types in this case is rendered doubly certain. Injury may follow, however, when the breeding is in the line of consanguinity long continued. A deterioration of constitution is produced from which the best specimens cannot spring. Those, then, who persist in the use of males that are only grades, have no certainty as to what they will get, only variety. Thus it is that there is no improvement on the general average where this practice is followed. A superior breed can never be established by pursuing such a course. The best results usually spring from mating animals of a desired type, the characteristics of which have been intensified by their production through long years. It is usually better when there is no close relationship, and the results more satisfactory when both possess the characteristics sought in a marked degree. Some males are much more prepotent than others, a fact which is usually determined only by actual results.

IT is not wise to adhere too closely to cast iron rules. It is a sacred principle with some to sell no hay or straw whatever the price may be, but to feed all. An excellent rule it is in the general, but it has its limitations. Sometimes hay and straw can be sold to advantage, and replaced with substitutes that are cheaper. When hay sells for \$14 and \$15 per ton, as it has done in some markets of Ontario this year, and oat straw from \$10 to \$12 loose in the load, it is not easy to turn these into meat or even milk to bring a larger return. But in no case should these be sold from the farm without restoring what will produce an equal amount of fertility in some other form. Those living near to cities can restore it in the form of purchased manures, and those more remote in the form of more concentrated foods, if these are correspondingly cheaper. The fluctuations of the markets are like the tides, they continually come and go, and they are unlike them in that they do not come and go with unfailing regularity. What more strange than that bran should be \$20 per ton in some parts of Canada, and wheat but \$26.66 per ton in the same cities, or but 80 cents per bushel? Live-stock in the same localities are being bought freely by the butchers for local consumption, at three cents per pound. It is difficult in such a case to turn hay and straw into meat that will bring an equal return, the value of the manure thrown in. But by cutting the hay and straw and using oilcake freely at \$25 per ton, in conjunction with coarse grains, the meat returns from a given amount of feed will be much better. The danger is imminent that numbers will conclude that the best thing is to reduce their stock and grow and sell hay, grain and straw, when in three years the relative

prices may be just the other way. The safe plan is to make the best of present conditions without conforming too rigidly to traditional rules, and rather than make violent changes in our methods, suffer some present loss, especially if those changes involve a reduction of our stock, the retention of which in the near future is more than likely to make it up.

THERE are some who say that it is a fallacy to talk of a general purpose breed. They argue that cattle cannot be both good for beef and milk production; that sheep cannot at the same time be good for mutton and wool, and that fowls cannot be excellent for the table and as layers. Now it cannot be denied that some breeds of cattle are better for beef and milk production than others, that some breeds of sheep are better for producing mutton and wool than others, and that some breeds of fowls are better for producing flesh and eggs than others. The question then arises, is it better on the whole to breed for one object exclusively or for the two combined. Some dairymen argue that milk and butter production should be the sole objects of the dairyman's search in the cow, and that beef should be the sole object of the search of the beef-producer; and that similarly the shepherd and the poulterer should seek one object and only one. But here comes in the awkward question, is not a certain amount of size required to the advantageous production of large quantities of milk, wool, and marketable egg produce, and a certain amount of milk before either beef or mutton can be profitably produced? If there are some breeds that possess these dual qualities in a higher degree than others, and some animals of those breeds of which the same holds true, is it not then an object of the purest and noblest ambition to try and perfect those dual qualities as nearly as may be? If a Shorthorn cow of the olden time was excellent for producing a large flow of good milk, and for producing steers for the block, why should not the modern Shorthorn cow be equally useful for both purposes, if managed on similar principles, notwithstanding the powerful exponents of the opposite view and the positiveness of their statements?

Ayrshire Amalgamation.

On another page we publish the explanations of both Mr. Rodden and Mr. Wade in reference to the unfortunate Ayrshire difficulty, we mean the failure of the associations for Ontario and Quebec to amalgamate. We do so with the desire to give both parties a fair chance, to offer explanations, that the general public may be in a position to draw conclusions for themselves.

We regret exceedingly the result of the past negotiations. We have seen men toiling in a slashing to roll a huge log to the top of a heap. They had skids placed and the chains adjusted, and the team on the other side had the log rolled very nearly to the top of the heap when one end of it struck a knot on the skid, the jar causing the chain to break and the log to tumble back farther from the foot of the skids than it was at first. The position of that log in relation to the top of the heap represents the present condition of the amalgamation movement of the two Ayrshire societies—the last state of it is worse than the first.

We only wait to say further just now, without pronouncing as to who are in fault:

1. That we think it a result that might have been avoided had the desire on the part of both associations to promote the true interest of Ayrshire breeders been stronger than their desire to secure a sectional triumph. The rock on which the negotia-

tions split was the decision of the *locality* as to where the books should be issued, and this only for a limited time, as, if we understand Mr Rodden aright, he was willing that after certain conditions had been fulfilled referred to in his letter, the records should be kept in Toronto.

2. That it is a result that will react injuriously to the breeding of Ayrshires. If the standards adopted are different there will be rivalries and jealousies endless in regard to the two books; if the same, it is supremely foolish to carry on two books at an expense each of nearly as much as would publish a book for the amalgamated associations.

3. That it is a legacy handed down by the Ayrshire breeders of to-day to their children, which, instead of demonstrating to them their wisdom, will make abundantly apparent their lack of this, in reference to this matter. They are but eating sour grapes which can only set the children's teeth on edge. They are delegating to them the work of uniting streams of record 100 yards apart which now are but ten yards distant. Had the split taken place on *standard* it would have been much more justifiable.

4. That we still cling to the hope that the two associations may think better of the matter, even now. It is not too late yet to heal the breach. Let the publishing of the records be delayed till the holding of the Provincial Exhibition next September. We have still a large measure of faith in the good sense of the breeders of this useful breed of dairy cattle, and we do hope that they will make it manifest by uniting in the publishing of one record for the Dominion. No one will be better pleased with such a consummation than the sons of the fathers, who, so *Scotch* like, refuse to yield or to compromise.

Maintaining the Fertility of Soils.

Our correspondent "Investigator," on another page, stirs again the profound question upon which the material prosperity of mankind depends more than upon any other—the maintaining and restoring fertility of soils.

With all due deference to the authority referred to, the "Report of the Massachusetts Board of Agriculture for 1886," we cannot believe that dairying rightly managed will tend to the exhaustion of soils. It may be true that certain areas in Massachusetts have become exhausted in sections exclusively devoted to dairying, but in every such instance it was not a direct consequence of dairying, but of dairying conducted on principles of injudicious economy.

Even under a system of dairying exclusively we can readily conceive of a loss of fertility. If the manure that is made is allowed to waste away one half of its substance in the barnyard, and is then applied as a top dressing at some dry season of the year when it will waste much of its fertility in giving odors to the desert air, then such a farm must become impoverished and ultimately refuse to produce. Even with our rich lands in Ontario this will be the ultimatum where such a practice is allowed. Even in dairying there is a large amount of plant-producing nutriment sold in the items of milk, butter and cheese, and unless this is restored in some way the result must be barrenness. Most carefully conserving all the sources of manurial supply from the farm and judiciously applying these, supported by a partial system of soiling, will, we believe, in most instances, be found equal to the task, for where a partial system of soiling is adopted the nutriment washed with the soil by the rains from the atmosphere, will, we believe, be found equal to the task of supplying the waste from the sale of dairy production. The phrase: "carefully conserv-

ing all sources of manurial supply from the farm" implies very much. It has regard to all the manure made, both in the solid and the liquid form, and the retention of its fertilizing properties, the contents of the cesspool, the mucks of the swamp, the bones of the slaughtered animals and the ashes from the forest. We have not the slightest doubt that were the whole truth known, much of the lost fertility spoken of went down from year to year into Long Island Sound, or was wafted by the fresh sea breezes over the Catskill mountains. It is the current opinion of dairymen in Canada that their dairy farms are increasing in fertility. This, too, is the case in Holland, and Denmark and Jersey, and other noted dairy countries. Of course when lands are impoverished, resource must be had to artificial fertilizers, and where a decided and quick restoration is the ambition of the dairyman, they will always be found indispensable, but we have always held it to be the duty of the farmer to stop the leakages of his home manurial resources, before he has recourse to these helps.

There can be no doubt that the results from the application of manure will be better, the more nearly we gauge their application to the period when their aid is required to nourish the growing crop, but it will not do to press this too far, for every farmer well knows that in practice it is impossible to carry out this idea completely in every instance. The farmer in all his operations should keep prominently before him, where a complication of duties arises, requiring his attention at the same time, that those should receive attention first, the neglect of which will entail the greatest loss. The importance of the principle of adaptation as to time in the application of manure will depend largely on the character of the soil. That importance increases with the porosity of the subsoil, and decreases with its retentivity. On some soils the traces of manurial application are obliterated in a single year, and on others they are visible at the end of five years. On the former the hope of establishing permanent fertility is a vain one. On the latter it is a blessed truth that must gladden the heart of every one who considers it, and the permanency of fertility oscillates between the degree of porosity of the subsoil or the opposite. In the former case the question of profitable cultivation will depend on the cost of the fertilizers supplied as compared with the net results from the crop; in the latter it will depend largely upon the returns from an accumulating or decreasing enrichment according to the plan pursued, and the net returns of the crops grown. In the first instance it is a simple case of barter, the land gets so much and gives so much back. In the latter it may be made to resemble a bank deposit where the interest is from time to time added to the principal.

The class of soils which obliterate the traces of manurial application in a single year are happily rare, and even these are not so destitute of the elements of plant food as is generally supposed. We try to force from them a growth to the production of which their nutritive elements are not adapted, and hence we fail. We know of a large tract of light land on the south side of the valley of the St. Lawrence, in the county of Huntington, where a crop of lordly pines straight and tall and sound, grew in years gone by. These were removed and a large plantation of hops is being grown upon a part of the area, which will not produce grain or even grass profitably. To grow these hops an application of muck, ashes and artificial fertilizers must be applied every year, and the question of the continuance of such cultivation resolves itself into a purely commercial one. Providence adapted these lands to the growth of pine. Man has used the

pine and is now trying to grow something else from what is suitable plant food for pine trees, but not for our ordinary agricultural products. Is man acting wisely here? Would it not be better to allow lands which proved themselves sufficient to grow good pine unaided, to grow pine again, for we cannot believe that the elements in such soils adapted to the growth of pine vanished with the last echoes of the stroke of the woodman's axe that felled the pine?

Even though the estimate of Sir J. B. Lawes should be correct—"That the restoration of the carbon and nitrogen which a soil originally contained can only be effected by costly processes, such as placing two hundred tons of dung upon an acre," we are not without hope, for if the "condition" of land to which he refers, may be "improved and large crops grown every year," by the use of fertilizers, we are simply brought face to face with the commercial aspect of the problem which the experience of thousands of experiments has demonstrated over and over to give a balance account on the right side.

To conclude that the quality of lands may not be profitably conserved is, it seems to us, an impeachment of the wisdom of the arrangement of Divine Providence. If the fertility of soils generally cannot be profitably maintained, then it follows that each succeeding generation in old countries comes into existence under material conditions less favorable than the preceding, and the older a country becomes, it must become the more sterile. Do facts bear out this supposition? Surely no. Are not the valleys of the Hoang Ho and Yangtse Kiang as productive as in the almost forgotten age when Confucius propagated his immortal lie, and does not the German peasant in the pleasant valley of the Rhine reap as bountifully as his dead ancestor who lived in the days of Charlemagne?

The Dominion Shorthorn Breeders' Association.

SECOND ANNUAL MEETING.

The second annual meeting of the Dominion Shorthorn Breeders' Association was held on Wednesday, February 22d, at 11 o'clock, in the St. Lawrence Hall, Toronto. The chair was occupied by the President, Mr. John Dryden, M. P. P.

The meeting was very well attended, the number of members present being about one hundred.

The president called the meeting to order and gave a short address. The minutes of the last meeting were then read and confirmed.

The secretary read some correspondence, including a letter from Messrs. Crerar & Muir, Hamilton, solicitors for Mr. W. G. Pettit, Burlington, asking why the bull Roger 10892, had been excluded from registry in the Dominion herd book. Mr. Dryden's reply was also read.

Mr. A. Johnston, Greenwood, then moved, seconded by Lieut. Gordon, Cooksville,

"That having been informed that it is the intention of Mr. W. G. Pettit to test in the law courts the legality of the action of the Revising Committee of this association in refusing to record the bull Roger, this association, while regretting very much Mr. Pettit's loss, expresses the hope that such evidence may yet be obtained as will enable the Revising Committee to take this step; and this association will sustain them in their action in this, and other similar matters."

The motion was carried almost unanimously.

The report of the committee appointed by the executive to consider Alderman Frankland's letter in regard to the erection of an agricultural hall, was then received. It viewed the proposition favorably, whereupon it was moved by Mr. Thos. Shaw, seconded by Mr. John Fothergill, and

Resolved—"That the Dominion Shorthorn Breeders' Association are much pleased at the action taken by the Mayor, aldermen, and other members of the City Council in reference to the establishing of an agricultural hall in this city, to be used for live-stock shows and sales, and other meetings of an agricultural character.

"They are further of the opinion that the erection of such a building in some central place would prove a paying investment to the city, not only on account of the greatly increased number of farmers who would visit the city, and the greater volume of trade which would follow in consequence, but because it would without doubt give a greater impetus to the live-stock and kindred industries, thus proving of incalculable advantage to the farmer, in the fruits of which this city would participate more largely than any other. We further recommend that a committee of two of our number be appointed to confer with the committee of the City Council and the other committees appointed with a view to further the proposed scheme."

Messrs. J. I. Davidson and Jas. Laidlaw were appointed a committee.

The secretary then read the report of the Executive Committee and the auditor's report, which were adopted. This report gave the number of pedigrees on record to July, 1887, as 22,000. Of these the 1st volume contains 3,301, and the second, 4,427 entries. The number of members in 1882 was 164 and in 1887 it had increased to 437.

The financial statement presented is as follows:

RECEIPTS.		
1887.	Jan. 1. Cash on hand.....	\$2,224 76
	Dec. 31. 357 Yearly Subscribers.....	1,428 00
	" 80 New Members.....	400 00
	" Registration Fees.....	2,907 05
	" 6 Copies Vol. 1, Dominion Herd Book	
	Sold.....	24 00
	" Interest on Bank Account.....	60 50
	" Cash paid out in Error, Returned.....	11 00
		\$7,055 31

EXPENDITURE.		
1887.	Dec. 31. By Cash Registration Fees Returned \$	101 50
	Salaries.....	2,954 34
	Printing and Stationery.....	322 45
	Postage.....	374 60
	Committee Expenses.....	125 84
	Sundries.....	51 95
	Legal.....	43 70
	1st Vol. Dominion Herd Book.....	1,039 00
	Cash in Bank.....	1,441 93
		\$7,055 31

ASSETS AND LIABILITIES.		
1887.	Dec. 31. To Cash in Bank.....	\$1,441 93
	Share of Office Furniture, Books, etc.....	100 00
	445 Vols. of Vol. 1, \$2.....	890 00
		\$2,431 93
1887.	By 356 Copies Vol. 1, to Subscribers of 1886 at \$2	712 00
	437 Copies of future Herd Book to Subscribers for 1887.....	874 00
	Balance.....	845 93
		\$2,431 93

We, the undersigned, hereby certify that we have carefully audited the books of the Association, checked the vouchers, and find them correct. We find the books kept in a satisfactory manner, and the balance of cash on hand agrees with the bank account.

JAS. LAIDLAW, GUELPH, } Auditors.
Wm. WHITELAW, "

Mr. Snell, Edmonton, then moved, seconded by Mr. Linton, Aurora,

"That the thanks of this Association are due, and are hereby tendered, to the American Shorthorn Breeders' Association for granting the change of their rule of entry, which permits animals registered in the Dominion herd book to be transferred to the American herd book for the usual fee of \$1. Carried.

Upon motion of Mr. Fothergill, seconded by Mr. Shaw, the following resolution was carried.

"That the members of this Association are much disappointed that the usual grant of \$10,000 has not been placed in the estimates for this year, inasmuch as the omission will virtually render the Agricultural and Arts Association unable to carry out an agreement already entered into with the city of Kingston

to hold an exhibition there next autumn, and for which grants have already been received from other associations. These arrangements were made in the usual regular way and with the reasonable expectation, in the absence of any intimation to the contrary, that the Government would sustain the action of the said association in carrying out its usual work in the customary way. For this reason, and because of the encouragement that the Provincial Exhibition has always afforded to the breeding of superior stock of all kinds, and that further time may be given for the farmers to give expression to their views, this association would most respectfully ask of the Government of this Province to make this year again the usual grant to the Agricultural and Arts Association."

The following motion, moved by Mr. Shaw and seconded by Mr. Laidlaw, was carried unanimously:

"That the annual meeting of this association to be held in 1889, continue its sittings for two days, and that the President be requested to appoint a committee of three to arrange for the reading of papers bearing upon the improvement of Shorthorns and the advancement of Shorthorn interests in the Dominion, in the hope that these papers and the discussions following may create a still deeper interest in this useful breed of cattle."

Mr. F. Green gave notice that at the next meeting he would introduce a motion which reads thus:

"That all calves shall in future be registered within twelve months of birth, and if not registered within that time, double fees be charged."

The election of officers was then proceeded with, and resulted in all the old officers being re-installed. The meeting then adjourned.

The Draught Horse Stud Books.

One of the most serious problems in regard to the breeding of pedigreed stock arises from the difficulties that grow out of the regulation of the record standards of the same. The tendencies of the time are to multiply those records to such an extent that the public mind becomes confused, and the strifes that are engendered by the advocates of the one and the other system to the loss of both the organization and the interest it represents.

That there should be one record for every class of pure-bred stock in the Dominion of Canada that is at all numerous, but few will deny; but that there should be more than one, very few will affirm. As to whether it will be advantageous to have a public record of grades of any of these breeds is as yet an open question. It is an experiment, the wisdom of which ultimately has not been demonstrated by experience, and we are in no way sorry that the attempt is being made, if it prove a successful commercial transaction it will be a sufficient justification, and it is likely to lead breeders to exercise greater care in the selection of their sires. But when two records of grades of the same breed are established with different standards, there arise contention and bickerings, and rivalries, along with the expense of sustaining two societies where one would do the work more effectively.

It is our fear that such will be the position of the Canadian draught horse interest in Canada ere long, unless the most prudent of counsel prevails. There is now an organization with headquarters at Goderich, Ont., called 'The Dominion Draught Horse Breeders' Society,' and one is under process of organization in Toronto called the 'Canadian Draught Horse Association.' These are avowedly to register the same classes of horses or nearly so, but with a different standard. The Dominion Draught Horse Breeders' Society has been in existence for some time. We are indebted to the secretary, Mr. James Mitchell, of Goderich, for the following particulars in regard to it:

The Dominion Draught Horse Breeders' Society was organized by a number of farmers interested in

horses, who were agreed in the opinion that the interests of breeders of heavy draught horses would be very greatly advanced, and that the interests of the purchasers and users of the same would be very greatly protected and furthered by a systematic registration of the pedigrees of certain stock now denied the same in the existing stud books.

The constitution provides,

(1) That the society shall be governed by a council of fifteen persons, viz., a president, vice-president and thirteen directors chosen annually from the members of the society. The present officers are, president, John McMillan, M. P., Constance P. O., Ont.; vice-president, D. McIntosh, V. S., Brucefield; secretary, James Mitchell, Goderich. Directors, John Main, Londesboro'; Thomas Green, Dublin; J. D. O'Neill, V. S., London; John McDairmid, Lucknow; P. Curtin, Adair; J. J. Fisher, Benmiller (treasurer); Thomas McLaughlin, Brussels; S. Smellie, Hensall; W. Wellwood, St. Helens; J. E. Blackall, Clinton; J. Aukenhead, Goderich; and Alex. Innes, Clinton.

(2) That the council shall have power to appoint a committee of five members, any three of whom shall be a quorum to examine applications for entry. It may also cancel an accepted certificate by a two-thirds vote, if proved to be false.

The registration fee is \$1 to members and \$3 to non-members, and the membership fee is \$5, up to the time of issuing the first volume.

We have not the full text of the original standard of registration before us, but we are safe in stating this much regarding it:

(1) Two crosses in an animal shall constitute eligibility to registration, but the council shall have discretionary power to reject inferior animals.

(2) Every application for entry must be accompanied by proof that the animal sought to be registered is the produce of a pure-bred or imported Clydesdale, or of a pure-bred or imported Shire horse and a mare with at least one cross of either of the breeds named, but an imported sire must be either registered or the produce of a registered sire or dam. But the council shall have discretionary power to exclude from entry animals of two crosses, but deemed unworthy of a place among breeding stock.

The standard has been amended; the new regulation is to come into effect March 1st, 1888, which, as we understand it, is a substitute for the preceding paragraph. It reads:

Every application for the registry of the pedigree of an animal must show that the animal whose pedigree is submitted for registry is the offspring of an accepted sire and of a dam the produce of an accepted sire.

Accepted sires are:

1st. Imported stallions of the Clydesdale and of the Shire breeds, that stood for service in the Dominion of Canada prior to 1886, but are now dead or removed from the country, having pedigrees satisfactory to the council. These sires the society agrees to register free of charge and accept; and their male produce in Canada with imported Clydesdale or Shire mares may be registered and will be accepted sires.

2nd. Stallions registered in the Shire Stud Book or in the Clydesdale Stud Book of Great Britain, Canada or the United States. All animals so registered of mixed breeding shall be named Dominion Draught Horses.

This may be found workable, but we have our misgivings as to the definiteness of that phrase, "Having pedigrees satisfactory to the council."

It is thus apparent that the organization is in the hands of a number of intelligent breeders, who are no doubt prepared to act vigorously in the prosecution of the work in hand. The other association, we believe, contemplates the adoption of a standard as high as that required for the registration of pure Clydes or Shires, and which will admit crosses of both breeds.

The object of the two associations then is ostensibly the same, the principal difference being that of standard. Why, then, would it not be the proper thing to amalgamate the two organizations now, and print the pedigrees of one standard in the body of the book and of the other standard in the appendix?

Would it not be the wise and prudent course for the provincial officers of the newer association to ask those of the older one to meet them in conference in this matter? The time will never be so opportune as now, for as yet no volume has been printed. We look upon it as the part of the new association first to approach the other, as they hold the ground by priority of occupation, the said occupancy having been obtained in a legitimate way. The only exception to this statement that we see at present is the adoption of the name, "The Dominion Draught Horse Breeders' Society," for an organization that has been pre-eminently sectional in its sphere and methods of operating, as nearly all its officers are at present located in the county of Huron.

We shall count it a privilege to do all in our power to bring about a union.

The Credit Valley Stock Farm and its Holsteins.

(From our own Correspondent.)

In the county of Peel, about four miles south of Brampton, is situated an extensive farm, very properly called, "The Credit Valley Stock Farm." This property is owned by Smith Bros., formerly of Dundas, and well-known throughout the province as successful breeders of Holstein-Friesian cattle, of which they are making a specialty. As its name indicates, the Credit river flows through it, and at this point forms a wide valley, giving a large area of rich bottom lands or flats, eminently well suited for hay and pasturage. When we saw it, late in November, the aftermath was quite heavy, and furnished excellent pasturage for the fine herds of cattle and horses then grazing on it. The best evidence of the excellence of these pasture lands, as well as the richness of the pasture itself, was the fine condition in which we found the stock scattered over the valley. Every spring the river overflows its banks and floods the greater portion of these flats, thus constantly renewing their fertility, and practically rendering them inexhaustible.

On either side of this river bottom the land rises gradually and becomes quite rolling. The soil is mostly a gravelly loam, with a clay subsoil, and is well watered by numerous springs, so that on every part of it pure spring water is available for the stock. This farm contains five hundred acres, and has within its limits a sufficient variety of soil to make mixed husbandry profitable, while at the same time it is particularly well adapted for breeding and rearing stock. Wheat last season yielded an average of 26 bushels to the acre; barley, 36, while potatoes and oats generally were heavy crops, considering the unfavorableness of the season.

However, it is not to mixed farming that the Smith Bros. purpose devoting most attention, but to the improvement of that class of stock that is best calculated to develop the dairying interests of this Province. They, with other close observers, believe that it is in this department that the farming community are to achieve their greatest success, and that depleting the soil of its natural fertility by continuous grain growing, without replacing the elements thus drawn from it, will soon place any farm thus treated on the list of those that are worn out and comparatively useless. Their idea is to bring back this natural fertility, by stimulating their fellow workers of the soil to devote more time and attention to the dairy, and therefore to stock raising, than to the production of cereals. For this purpose they have devoted a great deal of care and attention to the study of the merits and demerits of the various breeds of cattle, and find that the

Holstein-Friesian are the best that have come under their observation.

One of the members of the firm on being asked the question: "Do the Holstein-Friesian cattle meet the requirements of the dairying interests in the Province at the present time?" said: "In our opinion, these cattle are decidedly superior to any other breed for that purpose, and so great is our faith in their future that we propose largely increasing our present stock." In further conversation he gave his reasons for believing that these are the best dairy cattle, and are especially well adapted for the general farmer, in short, that they are *par excellence*, the "farmers' breed." His reasons, briefly summarized, are as follows: (1) They are hardy, and stand our climate well. (2) They are superior milkers, many of them having a record of from 60 to 100 pounds daily. That this milk is of good quality is evident from the following facts: (a) It is highly esteemed by cheese makers; (b) it produces large quantities of butter; (c) calves fed upon it grow rapidly and thrive well. (3) They are kind and gentle in disposition, thus making them favorites with those who have to attend and milk them. (4) They are excellent feeders, and are of large size, thus giving a good return in beef when sent to the shambles. (5) Their young mature early, the heifers generally having their first calves when two years old, and the steers, when well fed, making a large quantity of excellent beef. (6) They are among the oldest of known breeds, great care having been exercised in the selection of breeding animals, more especially in regard to the males. (7) The prepotency of the males is a strongly marked characteristic, as shown by crossing them with ordinary cattle, the grades thus obtained showing the many excellencies of the pure-bred, in color, in form and in milking qualities.

This herd now contains 22 head of pure-bred animals, of the very best milking and butter strains of the continent. Without specifying each animal by name, we may say that the Duke of Edgely, the bull at the head of the herd, is a large and well proportioned animal. He is a two-year-old, and has already been a successful prize winner, while the stock he gets shows the excellence of the family to which he belongs. The yearling bull Teusen Prince is handsome, and gives promise of developing into a superior animal. He took first prize in 1886 as a bull calf, and in 1887 second as a yearling. There are also a couple of bull calves, one from Ykema and one from Rotneice, of fine form and excellent pedigree.

Among the females is Seipkje, a superior cow, with a record of ninety pounds of milk in a day. She took the sweepstakes prize at the Michigan State Fair for three years in succession. The Belle of Orchardside and Cornelia Teusen are model milk cows, the former taking second prize at the Industrial, and the latter second at the Provincial, 1887, while Kleiterp 4th is one of the largest Holstein cows to be found in Ontario. All the members of this herd are excellent animals, and have been selected not only for the purity of their breeding and the excellence of their milking and butter qualities, but for their size and form as well.

The Smith Brothers are not confining themselves exclusively to breeding Holsteins, but have on hand some very excellent specimens of horse flesh, principally thoroughbreds. They have already half-a-dozen brood mares of superior merit, some of them having a provincial reputation, as Goldfinch and Miss Lyle, the former being a beautiful golden chestnut, and the latter a dark bay. There are also a handsome Black Morgan mare, with two of her colts sired by Hambletonian King; a bright bay mare, 16½ hands high,

by King Tom, dam by Tom Kimball; a mare by Dr. Butler, out of Romain's trotting mare, and Gip, of the St. Lawrence strain of trotters, sired by Montreal Telegraph. It is their intention, so we learn, to breed a superior class of carriage and saddle horses, for which they hope to find a ready market. In addition to these they have some Shetland ponies, and one very handsome Scotch pony.

Even with an excellent farm and a superior class of stock, farming may prove unprofitable, owing to the want of proper management. Good management on farm, as well as in every other calling, is necessary in order to succeed. The trained intellect is even more essential than the skilled hand, but when we find these joined in one management success is sure to follow. We are strongly of the opinion that there is too little attention paid to the intellectual part of farming, and that too many of our farmers pin their faith almost entirely to the muscular part as contrasted with the intellectual. It requires trained and cultivated intellect to achieve success in any department, and in the past there has been too great a scarcity of this desirable quality in our farmers, which we hope to see remedied in the coming generation. It is, therefore, very gratifying to learn that one of the members of this firm is an honored graduate of the Toronto University, while another thoroughly understands the practical part of the work, thus joining in one management the theoretical and the practical. We therefore feel quite confident of their success, and would advise those who are interested in improved agriculture to visit "The Credit Valley Stock Farm," for they will find it, as we did, both pleasant and profitable.

The Ayrshire Breeders' Associations Fail to Amalgamate.

MR. WM. RODDEN'S EXPLANATION.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I find some of the statements on the subject of amalgamation of Ayrshire Breeders' Associations and the causes of its being disturbed are not, as far as I am concerned, properly accounted for. I devoted a great deal of time and attention for the past ten months to the work, relying upon three points of arrangement that were agreed upon for conducting the work, and their maintenance to complete revision:

1st. The examination of the books by a committee that was to report and did report on the 27th of April last, as to what was and what was not in the Dominion book up to the standard given them on the 6th of April, for a guide to point out what was not up to the "aim at imported on the side of both sire and dam," in that book.

2nd. That the Canada Ayrshire record, vol 1, should be the nucleus of future work of recording.

3rd. That the books entrusted to me, and fees to pay for assistance and other expenses, "were to remain with me till revision was completed," as a guarantee that only good pedigrees were to be recorded.

I claim there should not have been any doubt about the kind of entry that was to be made. Even if you take the two statements 1st and 2nd, one says the aim shall be at imported on both sides of sire and dam, the other says the nucleus shall be the Canada Ayrshire Record, vol. 1, it traces to imported in every case. Therefore if the aim is not reached, but instead of it we reach sires and dams of mixed breeds, or false pedigrees, it would be a strange breach of trust for me to allow the interpretation to prevail that we would be working according to arrangement by admitting animals that did not come up to either of the two stipulations. Next, if I gave up the books of written records received from Montreal for the recording of mixed breeds, in the face of the agreement "that it should be the nucleus of future work," when I knew that an order had been given to enter two cows and their product having mixed breeds in them, and that in the first place had obtained entry in the Dominion herd book by the use of a false statement, would I not be guilty of a breach of the confidence reposed in me if I became a party to handing over the books or in any way assist in giving effect to new

rules passed in Kingston, without previous notice to members to enable them to be present and vote them down, as they would certainly have done if present. Wherefore it is simple injustice to assert that the Canada Herd Record Association caused the trouble, and I assert without fear of contradiction, that had the gentlemen of the Toronto organization proceeded to work under the stipulated conditions without taking advantage of the absence of eastern men to pass rules and orders contrary to the arrangement to preserve purity and leave the books under my inspection "till revision was completed," and had they not forced bad pedigrees for entry, and held over without rejection a lot more which might have gone in, when under the new rules they would have the books in Toronto to enter in before the second volume was completed—I repeat had they not disturbed existing arrangements, but had gone one as agreed till the proper time came, and till proper notices of change had been given, I would have considered myself bound to help them in all that was right. As it was I could not do otherwise than respect the authority vested in me, to offer up the books to those I received them from and ask to be relieved. You are no doubt aware at a large meeting here, approval of my course was unanimously adopted, and I was requested to hold the books and to receive entries till other arrangements were completed.

I have no hesitation in telling you that it was with regret that I found Mr. Wade came to Montreal with such instructions for future management as to render it not possible for our old association to abandon the rights of Ayrshire breeders' associations to a form of dependence which is foreign to their wishes and practice for the last eighteen years. I am also free to tell you it would have been a great relief to me to see a fair and equitable arrangement for working carried out honestly to preserve the character of a united organization and herd record of pure Ayrshires. If there is a desire to record Ayrshire grades it should be separate and on their merits of performance worthy of consideration. Excuse this hasty letter and publish what you can of it to do me justice.

Montreal.

WM. RODDEN,

MR. WADE'S EXPLANATION.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I hope you can find room for the following, which I think is a correct summary of the negotiations that have been carried on between the two associations of Ayrshire breeders, and of the reasons why those negotiations terminated so unhappily.

It will be remembered that our association was first approached by Mr. Rodden on behalf of the Quebec Ayrshire Breeders' Association in reference to the subject of amalgamation. As a result, a meeting was held in Ottawa on the 6th of April last, when a standard was arrived at which suited both associations, as follows:

Resolved, that all pedigrees now on record be submitted to a joint revising committee consisting of three members from each of the three existing associations who shall be empowered to pronounce upon the admissibility of such pedigrees to the future publications of the new association, it being understood that the standard aimed at is imported Ayrshire stock on the side of both sire and dam. In case of disagreement, the question to be referred to the executive committee of the amalgamated association.

At the second meeting in Ottawa to confirm the action of the committees, the question of standard pure and simple, was not discussed, but a business basis was arrived at in which we concluded to take the Quebec book as a nucleus or starting point from which to number the pedigrees, and to drop the Ontario one. The reason for this was that the Ontario book was conducted for some time with the standard that four crosses were sufficient to record a female and five a male, consequently some of the animals on record could not be traced to importation, while the Quebec book had been revised some years ago, and although containing many errors, was in better shape, and so was adopted. As amalgamation could not be brought about without mutual concessions, the above conclusion was arrived at, and the standard, as understood by myself and the western members, was the one passed on the 6th of April. Mr. Rodden and myself were appointed to revise the pedigrees from the Dominion book, and at the next meeting of the amalgamated association held in Ottawa during the week of the Provincial exhibition in September, the first report was made. Two cows were rejected as being grades, with the concurrence of the revising committee.

Two were accepted on a certificate from the breeder who is now dead, who signed a statement saying he bred these two cows from imported stock, but did not say whose imported stock. These were passed by the revising committee as coming under the standard as adopted on the 6th of April, Mr. Rodden, however, objecting, and between that meeting and the next one held in Kingston in January, 1888, notwithstanding the action of the revising committee by a majority vote, did not pass one of the cattle tracing to this termination. During the annual meeting to settle the standard for the future as there was a divergence of opinion between the eastern and western men present, it was resolved that the standard passed on the 6th of April, should be the future one. After passing this and the constitution, when it came to the election of officers for the coming year, Mr. Rodden, Mr. Drummond and Mr. Irving declined to be elected, thus severing the connection between the two associations, showing that no concession whatever would be allowed by them in order to continue the amalgamation. Other officers were elected, but have not accepted office. No other pedigrees were voted upon at this meeting.

Seeing at this meeting that there was but a poor chance for the amalgamation to continue, and knowing that the advanced opinion of breeders was that Ayrshire cattle as well as Shorthorns, should trace to importation on both sides without a shadow of a doubt, I wrote to several prominent breeders proposing that the Dominion Ayrshire Breeders' Association under the old management, should start a new book with two standards, one tracing clearly to importation on both sides, the other carrying on the cattle on record already which do not clearly trace to importation, in the shape of an appendix. This was approved of by those written to. In the meantime I was invited to attend a meeting in Montreal of the Quebec breeders, called by Mr. Rodden to explain his position at the Kingston meeting. I decided to attend, and with the consent of the breeders written to, offered them the following proposition:

That we would now agree to the double barrelled standard above mentioned, which would not have been consented to before by the western breeders, on consideration that the constitution, by-laws and financial basis be as entered to as agreed upon at Kingston, which briefly is as follows:

That this being an amalgamated association, the books and pedigrees of the Ayrshire Breeders' and Importers' Association, and those of the Dominion Shorthorn Breeders' Association, previously being the property of the Agriculture and Arts Association of Ontario, be handed over to the latter association, which now undertakes for the consideration of receiving the registration fees and the money received from the sale of the books, to take over all the books now belonging to the Ayrshire Breeders' and Importers' Association, and pay what liabilities there may be upon them, and publish from time to time, and pay for the publishing of future volumes as they are printed, furnishing the association a copy for each of its members at a reduced price to be arranged for with the executive committee, so that they can be given free to each member of the Association. The remainder of the volumes to be kept and sold as they are required by the public.

Section 2. The yearly or bi-yearly subscription fee of \$3 shall be the income of the Ayrshire Breeders' Association of Canada, to be used in paying for volumes of the herd book for members, and for any other purpose that may be thought by the executive committee to be to the advantage of the breed of Ayrshire cattle.

This gives the facts of the case, and shows that the western people have made all the concessions in their power and have given way in everything but the locating and management of the book, and they were led to believe from the first that the Quebec men were willing to do this, as at the time of amalgamation a large debt was held over them by the publishers and there was nothing of any account coming in to publish the second volume with. Seeing this, our association offered to step in and fill up the breach.

In case of their not accepting our offer, I requested that our books sent to Mr. Rodden, and the copies of pedigrees sent from Ontario during revision, be returned to us forthwith. Besides fulfilling our contract with Mr. Rodden as to sending registration fees, we have sent \$50 in addition, to assist in paying for a clerk to help him. They will also get the benefit of all our new registrations for their books, which we will have to record in our new first volume free.

The following is a copy of a resolution passed at a meeting of the Breeders' Association held in Montreal on the 24th of February, 1888:

"It was unanimously resolved, that after having carefully considered the proposals of the Ontario association (as set forth by Mr. Wade) for the amalgamation of the two existing associations of Ayrshire Breeders, and the removal of the management to the office of the Agriculture and Arts Association, Toronto, on the terms and conditions proposed by Mr. Wade, it is the opinion of this meeting that it would not be in the interest of the Ayrshire breeders of Canada to accept the same, and furthermore, that in the opinion of this meeting, it is of the utmost importance to the Ayrshire importers and breeders of Canada, that the recording of pure Ayrshires in the Canada Ayrshire Herd Book, be carried on as formerly."

(signed) S. C. STEVENSON, Sec.

The Most Pressing Needs of the Canadian Farmer at the Present Time.

(Continued from March.)

They are oppressed by railway companies. The freight rates where there are no opposing lines are excessive. And where these do exist are unequal, as was abundantly shown by the evidence given before the railway commission at its sitting in Toronto, May 17th and 18th, 1887. To say that a Canadian farmer must pay more for the transit of a cattle beast from Oshawa to Papineauville, a distance of less than 300 miles, than for carrying the same to Iowa, more than three times the distance, is absurd, and to charge \$38.60 for the former transit, although the beast was under 1,500 lbs., and which we know was charged, is an insult to the intelligence of the farmers of Canada. And this is but one of ten thousand of the instances of undisguised unfairness that have been enacted by those bold and hitherto defiant corporations. The company makes its arbitrary regulation, and what will it avail the isolated farmer to complain? About as much as it will avail the harmless poodle to bark at a ferocious tiger intent upon devouring his prey; but let the farmers unite in their efforts, and they will be able to forge a chain strong enough to hold the tiger, and to place him in a cage the bars of which he cannot break.

Farmers are oppressed sometimes by town and city corporations. We specify but two particulars of a number, (1) The market fee oppression is still in force, though in a less severe form, and why? Because the farmers said through the medium of the Grange they must have it so. But we cannot praise them for accepting half a loaf when right would have given them a whole one, had they been more persistent in their demand. While town and country are the necessary complement one of the other, the one is not justified in infringing on the rights of the other, where those rights can be ascertained. If the townsman provided accommodation that would shield the farmer from the sun and the rain, let the latter then pay a reasonable fee; but why should he do so for standing in a dirty street under the free canopy of heaven? It has been argued that the market is as much for the benefit of the farmer as of the citizen. Let the farmers but stay away all of them, from the market, but for a single week, and the famine-stricken place would then know for whose benefit the market-place was established. (2) The system of city inspection of certain portions of the farmers' produce is still in force. A farmer brings in a beef hide taken off in the most careful manner. The inspector looks at it and marks the ticket No. 2, which means a loss to the farmer of two cents per pound on every pound of its weight, and then pays this corporation robber a fee for having thus plundered him. Why do the farmers submit to be thus plundered, and worse than insulted to the face by a corporation employee whose garments are saturated with the bribes, it may be, of those whom he is anxious to please? And so of the cordwood by-laws in many of our towns. One man, often a whiskey sot, sits in judgment on the quantity and quality of every load that comes into the city. Why do not the benevolent city fathers who enact those by-laws send an inspector to every dry goods shop in the town to inspect the goods and brand them, that the purchasing farmers may thereby be assisted? The farmers are oppressed by the combinations of the industries. The manufacturers combine and put on a double price, the printers combine and say these are our terms, whether you like it or not. The profes-

sions even combine and fix a tariff of rates, assuredly not in the interests of the farmer. All these take an undue advantage of the accidental circumstances of their position—contiguity and restricted numbers, which the farmers cannot, owing to their isolation. Manufacturers sometimes exact from the farmer a fee which pays an army of agents, costing them (the farmers) tens of thousands a year. We advise here, come with the cash, and don't pay the fee. Rest assured, if one manufacturer will not accept these terms, others will.

We regard all combinations for the purpose of raising the price as pernicious in their tendencies, nay, they are unjust. It is robbery in the garb of plausibility. Why, for instance, should the dentists have their fixed rate of charges when it is patent to every one, that the work done by one dentist is worth ten times in intrinsic value that done by another. The price paid for anything should be the quantity determined by its intrinsic value, and the surest guides in the estimates of intrinsic values are judgment on the part of the buyer and the reputation on the part of the seller. The manufacturer of a superior article has a right to a price above the average, and he who produces an inferior one has no claim to an average price, though he should creep into notice amid the fogs which combination to elevate prices is sure to create.

Farmers are oppressed by the middlemen, and the degree of this oppression is usually in proportion to their distance from the market. The senses of middlemen are wonderfully acute, particularly so in time of storm, when the unfortunate farmer is compelled to sell. Barley which is brought but one mile to market is usually No. 1, because in such a case it is easily taken back to the granary of the farmer; but when brought fifteen or twenty miles it is a bad color or musty, or of the wrong variety, which often means loss to the farmer to the extent of five or ten cents per bushel. Selling produce by means of sample to these middlemen would prove a wholesome check on their rapacity, if it were pretty generally introduced.

Do not conclude that our faith in humanity is gone. We have unlimited faith in the integrity of one portion of the race, and this portion includes some railway managers, and city fathers, and directors and members of the various industries, and divers of those intermediates; they shine all the more brightly in the contrast of the dark background where they appear. But we must frankly confess that in the sincerity of the desire of each of those classes as a whole to do justice to the farmer, our faith has dwindled to a most insignificant factor.

Now, what is the remedy? Why, counter combination. We have given a complete answer in a word. While it is wrong to combine to fix a uniform price for unequal services or goods that differ in their value, it is not wrong to combine for purposes of deliverance from the thralldom of a yoke which neither our fathers could bear, nor can we. If the serfdom of Canadian yeomen is a desirable thing, then continued submission to these oppressions is also desirable. But surely while the skies are bright above us, and the free air of heaven blows around us, Canadian yeomen never, never, never can be slaves.

While we do desire to see the hide inspector and his associates slung out of the charnel-house of their abominations, while we are anxious to see the overstrained senses of the middlemen set right, while we do long to see our railway corporations under bit and bridle, and while we await the falling of the big farm sledge, that will break price-fixing combinations into fragments, we do not counsel to bring about those changes, much needed as they are, in any other than the most peaceful and equitable manner. We simply ask the farmers of Ontario to combine through the medium of the Institutes. This once done, amicable conference will easily accomplish the rest.

That farmers should have submitted unresistingly to these and kindred impositions in the past is strange indeed. It is a libel on the free air inhaled in our country homes, a libel on the rich lands that have fed us, a libel on the mother who have nursed us, and a libel on the fathers who in the past have been our protectors. It is not so much that these failed in the discharge of the obligations that they owed us, that we suffer these things, but because we have bowed down and worshiped at the shrine of party politics, regardless of our interests as farmers. We have too often delegated the power to legislate for us into the hands of others, simply to gain the shadowy advantage of victory in a parliamentary contest. But surely

we can bury these mistakes of the past in a new dug grave, soon to be forgotten by the spontaneity and vigor of that new life of unity of action that has come at last to the farmer.

We have already referred to the value of the Institutes in an educational point of view, but their functions are now to be extended. They are to be made the medium of the overthrow of the oppressions under which the farmer labors, imposed on him by other interests. They will become the Gibraltar of the farmers' defence, guarding the straits of ingress and egress to and from his inalienable rights in virtue of his citizenship. To put it more simply, they are intended to secure for him, fair play.

You are aware, doubtless, that on that brightest morning that has yet dawned for the farming interest of Ontario—April 28th, 1887—the Permanent Central Farmers' Institute was organized in the city of Toronto, and from the preamble stating the objects of the organization we quote the following, not because we deem it by any means its principal object, but because it bears upon the idea in hand: "To conserve and secure the just rights of farmers in their relation to legislators, corporations and individual industrials." From this you will perceive that it is not simply our mind, but the mind of the entire farming portion of the community—for that meeting was provincially represented—that the farmers of Ontario at the present time have not fair play in their relations to other industries. Now there need be no difficulty in organizing an Institute in every electoral district in the Province, and so secure complete representation by means of delegation to the Central Institute. In this way the mind of the united farming community can be ascertained and their desires secured, for they have but to march to the gates of corporations, and the legislature even, in solid united phalanx, every man standing shoulder to shoulder, when they will get what they ask.

(To be continued.)

Ontario Live Stock Registrations for 1887.

From the very comprehensive report of Mr. H. Wade, Toronto, the secretary of the Agricultural and Arts Association of Ontario, we glean the following:

HORSES.		
	MALES.	FEMALES.
Clydesdale	279	268
Shire or Cart	11	9
Office Record	22	13
Total	312	290
CATTLE.		
Ayrshire	53	100
Hereford	8	13
Polled Angus	10	7
Devon	10	12
Total	81	132
SWINE.		
Berkshire	210	244
Suffolk	20	18
Total	230	262

For which were received from registration fees, \$1314.50.

A Butcher's Trick.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—A fact has come to my knowledge recently, showing the necessity of breeders exercising more care in deciding as to who they shall sell. A party wishing thoroughbred stock told me that he had bargained with a Toronto butcher for a calf to be sent him, which the butcher is to buy from a certain breeder, ostensibly for veal. The same party informed me that he had already bought two calves in this way, both from the same breeder's herd, from which he expects to get this one. As a result he has as good a stock of high grade cattle as his neighbors, who have purchased males direct at high prices. Breeders should castrate all males not sold direct to farmers.

X. V. Z.

Stud Book.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Please let me know if there is any stud book in Scotland called the British Stud Book. If so, please give me the address, so that I may get a copy.

Mount Forest, Ont.

SUBSCRIBER.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Clydesdale Horse in Canada.

By D. M'CRÆ, GUELPH, ONT.

(Eighth Paper.)

WELLINGTON COUNTY CLYDES.

The Clydes are becoming very general favorites throughout the county of Wellington. Not only in the neighborhood of Guelph, where there are several studs of registered mares, and especially that of Woodlands, where Messrs. D. and O. Sorby have the largest and finest lot in Canada, but also in the more central and northern parts, where there are now some very valuable breeding animals. The first direct importation that I have heard of was made by John Duff, of Everton, in the township of Erin, about 21 years ago. His selection was Agricola [334], purchased from the breeder, James Fossett, Esq., of Scalsby Castle, Carlisle, Cumberland. Agricola was a dark brown horse with black legs, foaled in 1864, sired by Dusty Miller, a prize-winner at East Cumberland and Wigton in 1859, and at Carlisle in 1863. He was by British Farmer, by Prince Charlie. Agricola's dam was by Lofty (457), and g. d. by North Britain (568). Agricola left some very good stock in the south-east part of Wellington and in the adjoining counties of Halton and Peel. He gained a number of local premiums; weighed when mature about 1,800 lbs.; had a short, compact body with very heavy mane and tail.

The next importation was by Duff & McCallum in 1871. In that year they brought over Duke of Edinburgh, bred by J. Kerr, The Bloom, Midcalders, Midlothian, Scotland. He was a dark brown horse with very little white; was a good horse but rather long in the back, and somewhat loosely built. He travelled in Eramosa, Nichol and part of Halton. Have not been able to get details of his breeding. In 1873 Mr. Duff bought Duke of Argyle [56], foaled in 1871. He was entered in the Scotch stud book as Lord Glasgow (2964), a brown horse with white stripe on face and white hind foot; bred by Robert McConnell, Kirkinner, Wigtonshire; was sired by the celebrated Lochfergus Champion (449), one of the best breeding horses in Scotland. Duke of Argyle has left a lot of very good stock in Wellington. He had very good style and good action; stood 16-3, with extra heavy quarters; fine legs, and good, silky hair; moderately heavy head with fine, lively ear. While young he was rather light in the middle, but this improved when he grew older. His dam was a mare bred by A. Kerr, Scroggiehill, Castle Douglas. She won prizes at Wigton, Gatehouse, Dumfries and other local shows. Her sire was Inkerman by Lord Byron, her dam by Old Matchem. His death in 1880 was a severe loss to Mr. Duff, who the same year imported Gladstone (1439), a good, active, stylish horse, not very large but with extra good bone and fine legs and feet; bred by Wm. Stevenson, Bishopbriggs, Glasgow; got by Farmer's Fancy (302); his dam Jean (1194) by Hercules (378). He took a number of prizes in Scotland, and had a good place at Glasgow show in 1880 as a two-year-old. Gladstone has got some very good stock and is still in the county. Since then Mr. Duff has imported several good animals, amongst others Davie Lad (2051) [349], a son of Young Lord Lyon (994) a big brown horse, heavy boned and heavy bodied, weighing over a ton. His stock came out well as two-year olds and over. He is now owned by R. McConkey, Arkwright P. O. Cowden Lad [329] (2037), a half brother of Gladstone, being also by Farmer's Fancy (302), and bred by David Dodds—Dollar—now owned by Slimman & Boyd, Drayton. He is a light bay with white strip

on face and white hind feet; good, heavy, bone, clean neck and head, and good body. Reform (3947), a dark mahogany brown, bred by James Bruce, Collythie, Gartley. He is a grandson of the celebrated Prince of Wales (673), one of the best breeding horses in Scotland. He was sold when 18 years old for £945, and has many times repaid the price.

I notice that the advocates of the Shire horse are still repeating the statement which has been so often reputed, that this horse was descended from a Shire mare. No doubt those over-zealous Shire advocates have often wished that such was the case, but this, and repeating the story time and again, will never make it true. I regret to see it again reappearing in the last issue of the LIVE-STOCK JOURNAL Reform's sire was Prince Albert Victor (617), dam Rose (1056) by Duke of Wellington. Reform took first at Aberdeen as a yearling in 1884; was third in a class of 120 three-year-olds at the Glasgow Spring Show in 1886, beating many good ones, and is a valuable addition to the Clydes of Wellington.

Messrs. Andrew and Jas. Young, of Erin, imported about 1871 a good, large, heavy-boned horse named Wellington [289]. He was light bay in color, with white face, and left in the county a lot of very good stock. Sire Wellington (907). Others came to same neighborhood. The details of pedigrees have not yet been secured and recorded. Mr. Richard Leitch, of Harrington, imported in 1882 Prince of Tay [14], a bright bay with white star on face; bred by Wm. Rae, Lawrence Kirk, sire Angus Baronet (12). Also Lord Lyon 2d [15], a bright bay with white face and white points; bred by John Stroyan, Stranraer. He was sired by Young Lord Lyon (994), and his dam has Lochfergus Champion (449) and Lethian Tam (506) blood. At the same time Mr. Leitch brought the mare Bay Nettie [5], sire Young Scotsman (1028), dam by Renfrewshire Dick (696), and she has proved a good breeder, having several registered foals. Tam O'Shanter [39], a horse imported by Simon Beattie, and owned in Wellington by Messrs. Wilson & Patterson, left some good stock. His sire was Loch brow (2225), and his dam a mare by Old Times (579). He is bay with white feet, good body, heavy bone; rather round, with short pasterns. He is still in the northern part of the county.

(To be Continued.)

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Shire Horse.

(Third Paper.)

William the Conqueror (2343), brown in color, was foaled in 1862, and bred by Henry Barrs, Repton Park, Burton Le Trent. He was sired by Leicestershire (1317) (Dombers) dam by William the Conqueror (2340), and his pedigree traces through some of the most celebrated strains of Derbyshire horses back to the Packington Shire horse who was foaled about the year 1746, and is probably the oldest draught stallion of which any record is extant. William the Conqueror (2343) was the winner of several prizes in Derbyshire, and as a sire has proved remarkably successful, especially when mated with mares sired by Stych's Champion (419). Two of his sons have won champion honors—Prince William (3956), winner of the Elsenham 100 g. challenge cup at the London Shire shows in 1885, where he was sold to Lord Wantage for over \$7,600, and Staunton Hero (2918), who also won the Elsenham challenge cup and many other prizes. His daughter, Blue Ruin, also won the champion cup at Spalding shows. Lincolnshire Lad 2d. (1365) was a horse that during the first seven years of his life was highly esteemed.

When a two-year-old he was almost a skeleton in condition, but was possessed of big legs and abundance of beautiful hair, and to a horseman, notwithstanding his low condition, there was something taking in his appearance. He was purchased by a farmer for a small figure, and was regularly worked by him for several years in a team. His owner did not trouble to travel him more than a mile or so, but he has been known to sire over 100 mares, with a very small number of barren. The mares were generally of an inferior class, the fee being low. At six years old he was again sold, still at a low figure, but by this time his stock was beginning to come out, and he began to obtain a better class of mares. He was grey in color, foaled in 1872, and was sired by Mr. Lawrence Drew's (of Harrington) Lincolnshire Lad (1196), dam Madam by Matchless (1506), who weighed over an English ton. Lincolnshire Lad 2d has proved himself one of the most impressive sires of the day, especially when mated with mares by Stych's Champion (419), a celebrated Derbyshire sire, in repute twenty years ago, as his get prove, such as — Lassie, 1st prize at the London Shire show, 1882; Lincoln Tom (1390), 2d at the same show in 1884; Harold (3703), champion horse both at the Royal and the London Shire shows, and also at the great Yorkshire shows; Bonny, the champion mare at the London Shire show, 1886 and Carbon (3523), who likewise distinguished himself last year. Spark (2497), foaled in 1878, color black, was bred by Mr. R. Rowlands, of Creslow, Aylesbury, Buckinghamshire, and sired by The Colonel (2101), dam Daisy (winner of seven 1st and five 2d prizes between 1876 and 1881), by King Charles (1207), who traces back to Honest Tom (1060), bred in the year 1800. Spark is a horse admirably adapted for breeding dray horses; his weight is 2,520 pounds; height 17¼ hands; measurement of his fore leg below the knee, 12½ inches, and his girth behind the shoulders, 98 inches. In 1881, amongst other prizes, he won the champion cup at the London Shire show, and was there purchased by Mr. W. Gilbey for \$4,200. The judges in their report remarked, "No doubt this horse is the best that has been exhibited for many years, and is just the sort all breeders of cart horses ought to aim at. Color black, with immense substance; has the best of joints and feet, and is full of bone and feather." In 1883 Spark again captured the champion cup at the same show, after which Mr. Gilbey retired him from the show-yard, and he is now the senior stud horse at the Elsenham paddock. Among the most successful offspring of Spark may be noted the celebrated filly Glow, which commenced her prize-winning career when a yearling, and as a two-year-old won first and champion prizes for fillies at the London Shire show in 1885, first at the Royal at Preston, and many other prizes; also Brother Glow and Shining Light, both having won champion and other first prizes.

Premier (2646), foaled in 1880, has been one of the most successful sires. During the last two years his get has been constantly coming to the front. He is a bay with white face and white hind legs, bred by John Fisher, Layton Hall, Black Pool, Lancashire, and sired by What's Wanted (2332), dam Star by Drayman (640), tracing on both sides to ancestors that were prize-winners. In 1886 nine yearling colts and fillies sired by him received prizes and commendations at the London Shire show. In 1887 the first prize yearling and foal at the Royal were sired by him, and at least ten times did his sons and daughters capture prizes and commendations at the London Shire show. Queen of Truth, one of his daughters, won first prize out of 31 yearling fillies, and was sold for over \$1,160

to Col. Freeman, Milford. There are many others, such as Bar None (2382), Enterprise of Cannock (2772), Charter (2740), etc., but want of space bids us desist.

THE SHIRE HORSE IN CANADA.

Although it is only within the last few years that Shire horses have been imported to this country in any numbers, yet at a much earlier date, stallions of this breed have at different periods been introduced. As in England, the want of a distinctive title has in a great measure prevented this breed from being more popular in Canada. The majority of them were travelled under the name of draught or cart horses, and many of them were probably supposed to be Clydes by those not conversant with pedigrees, and were no doubt used by them under that belief. This would account for the mixed system of breeding, that has been pursued in many parts of this country, which the revising of the entries for the Canada Clyde Stud Book has brought to light. Few were previously aware how many horses there were that trace to a Shire cross. At Canadian exhibitions Shires have successfully held their own. Many will doubtless remember England's Glory (737) [97], who won first both at the Provincial, Toronto, Hamilton and many other shows, and up to 1872 was said never to have been beaten. Hero (3716), who won first prize twice at Toronto exhibition, and Lord Harry [5], who won the sweepstakes for best draught horse of any age at the Industrial Exhibition.

In the States this breed has quickly taken a firm hold, and many grand stallions and mares have been imported. Our American cousins are no longer content with obtaining medium animals. It is but last year that they secured the famous Enterprise of Cannock (2772), the champion stallion at the London Shire show in 1884, who, unfortunately, however, died on the voyage, and Caractacus (sired by Pompeii (1757), d. Albury Blackbird, by North's Peacock,) who, at the stallion show held in connection with the Fat-Stock Show at Chicago in November last, obtained the sweepstakes for the best draught stallion of any breed, competing against Clydes, Percherons and French draught breeds, and who was said by one of the judges to be one of the three finest draught horses in the world.

The earliest importation to Canada of a draught horse, which is supposed to be a Shire, is Tamworth [92]. All that is known of him is that he was bay in color and was imported in 1836 by the British troops and taken to London, Ont. He is described as a heavy artillery horse. The next importation I have been able to ascertain is King Alfred [72], who was imported to Canada in 1847, but I have no information as to his breeding. The next importation is Brown George [H], imported in 1851, and his is undoubtedly a Shire pedigree. From this date, importations of Shire stallions occur more frequently, but, as yet, comparatively few mares have been imported. It has been extremely difficult to obtain, even approximately, a complete list of imported Shires, and many are doubtless omitted. Horsemen appear to be singularly oblivious to their own interests in not sending particulars of their importations to the stock papers. Rare are the instances in which it is done, although I am sure the STOCK JOURNAL and other papers would willingly allow space for that purpose. Many horses have been imported without having been registered in the English Shire Horse Stud Book, and as a good proportion of horses are sold to American purchasers who often wish to have their purchases recorded in their own stud book, it may not be amiss to remind Shire importers that by rule 6 of the American Shire Horse Stud Book, "imported stallions or mares, sub-

sequently to April 28th, 1885, are admitted only upon the certificate of the secretary of the English Shire Horse Stud Book that they have been recorded in the English Shire Horse Stud Book, or that they are by sire and out of dam both recorded in the English Shire Horse Stud Book."

AGRICOLA.

(To be Continued.)

Our Scotch Letter.

CLYDESDALE BREEDING IN ABERDEENSHIRE.

(From our Aberdeenshire Correspondent.)

The rapid strides that are being made in the improvement of Clydesdales in Aberdeenshire may be pleaded as my excuse for devoting some attention to a subject which in this district is one of ever-growing importance, which may also engage the attention of a not inconsiderable number of your readers. The pre-eminence of the county as one of the most important centres of cattle-breeding in the island has long been recognized, and there are not a few who speak with some authority, who say that before long the "Aberdeenshire" Clydesdale will compel as much attention and admiration as do our famous Shorthorns and "blackskins" of the present day. This much at any rate I can say, that Clydesdale breeding has been taken up in dead earnest by several of our best landlords and shrewdest farmers, who are not the sort of men to put their hand to the plough and look back, so that if genuine enthusiasm, thorough practical interest and sound judgment count for anything, the future history of Clydesdale breeding here will be a record of unqualified successes. A few gleanings on the subject of the earlier improvement of the breed may not inappropriately come first.

There are still those "to the fore," as it is sometimes phrased, who remember and speak with admiration of the stallions named Comet, belonging to Mr. Wilson, late of Durn, which traveled the county. Mention is particularly made of the grey Comet and the black Comet, which were described to me as being splendid, thick-set horses of a really admirable type. Compared with the horses of the present day they would, however, have been accounted deficient in bone and hair. Still there is no doubt they did good to the county and led to further improvements.

A Mr. Elder also introduced some new blood, but of the earlier horses none could be compared with Young Lord Haddie, a horse belonging to Mr. Sim, Faewells, and a most prolific sire, which laid the foundation of many good stocks that were turned to advantage later on. Mr. Duncan Kinkell and other people went to the west of Scotland at various times and brought back with them what their fancy dictated or their pockets permitted, and so it was that the noted Lord Lyon (489) made his way to Aberdeenshire, and his mark upon the local studs. On the larger farms, horses of a superior class were kept as compared with those on the smaller holdings, and the owners had for many years been in the practice of selecting their breeding mares, the best only being retained for brood purposes. Some idea of the character of the better class of mares to be found in the county many years ago may be gathered from the description given me of a mare which was the dam of a horse named Cairnbrogie (116), and owned by the late Mr. Marr, of that ilk. She was a magnificent type of a low-set, thick, active Clydesdale mare, with scarcely so much feather as they had in the south of Scotland, but her head, body and legs were perfection, and she had any amount of action. Such was the mare that may be said to be a typical specimen of the best mares in the county at a comparatively early period of the present century, and such was really the foundation and backbone of the present improved Aberdeenshire Clydesdales, whether they had any affinity to the race of animals that were reared in the southwest, and which have doubtless made the fashion as regards Clydesdales up to the present time, I do not know. Local breeders say they were a distinct strain by themselves, and on this hypothesis they account for the splendid results which have been achieved in combination by the two. I have been informed that thirty years ago some of the work-horses stood over at least 17 hands, which proves indirectly that our farmers had at a comparatively early stage taken in hand the improvement of their horses. They were noted for the toughness of their feet and their thin, hard bone, qualities that no doubt were the means of attracting the large buyers from the south

who find in Aberdeenshire the sort of animal that can best withstand the wear and tear incident to the heavy traffic of the streets of Glasgow. The horses bought for such traffic in this district have for years been acknowledged to have the best wearing qualities, the result, it may be, of our rigorous climate and hard granite soil.

Mr. Marr, Cairnbrogie, told me an incident which shows the active character of these horses. A colt about 17 hands high was being driven into a corner by Mr. Marr's father, when it wheeled round and leaped clean over his head. That was about thirty years ago. The encouragement which the Royal Northern Agricultural Society gave to the breeding of horses in the northeast of Scotland deserves to be acknowledged. Special prizes were offered to horses on condition that their services would be given to certain districts, and this sometimes had the effect of drawing first-class animals from the south. It also became a not uncommon practice for Aberdeenshire farmers to go to the south for mares.

But coming to speak of more recent events, reference will be made to a few of the more typical instances, in which the enterprise shown by individual breeders has been attended with the most abundant good fortune. Mr. John Marr, Cairnbrogie, who will be readily admitted to be one of the principal supporters of this variety of stock in the northeast of Scotland, as he has been one of the most successful breeders in the county, had been at Keir on business, and from what he saw of the famous stud there he was led to invest in a pair of foals at the then long price of 100 gs. His purchases were somewhat of a novelty at that time, being heavier-legged and bigger-boned than the Clydesdales generally seen in this district previous to that time. General (323), which turned out to be a successful prize-taker and a good stock-getter, was one of them, and his companion was Maggie Newstead, also a prize-taker, who was afterwards sold to Col. Holloway at a high price, and the stallion likewise went to America. This, having proved a profitable investment, Mr. Marr was on the alert for new blood, and the dispersion of the Knockdon stud afforded him the opportunity of obtaining as fashionable Clydesdales as could have been found anywhere. He knew at that time that it was a toss up whether the Kier stud or the Knockdon stud had the best material that was to be got. Among the animals offered at the sale was a mare named Young Darling (237) out of the dam of the famous horse Prince of Wales. She had a striking resemblance to her mother, and though other females were put into the sale-ring with a higher show-yard record, Mr. Marr invested his money in Young Darling, and was by some thought to be a rash man for doing so. Events have proved Mr. Marr's judgment to have been unerring, for I do not know that a more fortunate speculation has ever been made in the Clydesdale world. Grand Turk and Merry Mason completed Mr. Marr's purchases at the Knockdon sale, these being two horses that, having traveled Aberdeenshire successfully, were sold at long prices to go to America. Mr. Walker, Coullie, another Aberdeenshire breeder at the same sale, purchased a daughter of the Prince of Wales. She was an animal of great quality, proved a prolific breeder, and left a lot of capital stock, which have brought very remunerative prices. The progeny of such fashionably-bred Clydesdales were soon spotted in the show-yard, where they carried everything before them. Mr. Dunn, Jackstown; Mr. George Bean, Mains of Balquhain; Mr. Lumsden, of Balmedie, and others, also spared no trouble or money to buy the very best material wherever it was to be found, so that Clydesdale breeding is now in the hands of a large number of the very best men in the county, the stocks at the same time being most fashionable and select, while the descendants of the native element to which I referred have of course been maintained and crossed with southern blood, having been an invaluable assistance in the improvement of the breed.

In the course of time the Aberdeenshire Clydesdale breeders found that, although they had an excellent stock of mares, they were rather restricted in their selection of sires to mate with them. A club called the Central Aberdeenshire Horse Club was formed for the purpose of securing a first-class sire, and in 1881 at the Glasgow Show they engaged W. P. Crawford's Lord Erskine (1744), but as he was awarded the Glasgow Society's prize, he could not fulfil his engagement, and Strathleven (1539) took his place for a time. Ultimately, Lord Erskine was secured at a premium of

£100 and high service fees, but the result far exceeded the expectations of even the most enthusiastic supporters of the scheme. The stock he left were remarkably good and even all over; in fact, the number of prizes they took at Glasgow and Ayr, and all the big exhibitions, proved that they were second to none and almost superior to any.

There was nothing that did so much to put Lord Erskine in the front rank, as a breeding horse, as the victory of his five yearlings, all bred in Aberdeenshire, at the Glasgow Summer Show in 1885, where they were pitted against the progeny of such notable sires as Darnley, Macgregor, Belted Knight, etc. To outsiders it was a great surprise, as few of them realized the improvement that had been steadily going on among the Aberdeenshire studs, and which the advent of this horse accentuated in such a marked degree.

His name would have been long remembered in this part of the country had he never produced anything but Mr. Marr's champion Clydesdale horse, Cairnbrogie Stamp (4274).

The blue selected as Lord Erskine's successor, McCamon (3818), a two-year-old colt which gained the champion prize at the Edinburgh Centenary Show in 1884, but in this case they purchased the horse outright, the purchase price being £900. He has been a potent breeder, leaving a lot of stylish stock in the county, and he is still kept on. He is a son of Blue Ribbon (1961), and after the celebrated horse, Darnley (222).

The number of pedigree mares have increased so largely in the county that there is now ample field for at least two, and perhaps three, of the highest class of stallions. This has been recognized by the breeders, who this season, in addition to retaining the services of McCamon, have also engaged Lord Erskine at high terms—£10 for each mare, payable at the end of the season.

I might now take a turn into one or two of the more select studs and see what is to be found within, and I shall select Cairnbrogie first. Mr. Marr returned to Keir and bought several females, being so well pleased with his earlier purchases, and one of these was a notable breeding mare, Lady Lyon (584), by the famous Lord Lyon (489). His stud, indeed, may be said to be laid on the double foundation of the best families at Keir and Knockdon. The Maggie Newstead strain is still represented in Maggie Keir, a prize winner and a valuable breeder, which has, at present, a filly foal at foot, by Cairnbrogie Stamp, of extraordinary promise. Lady Lyon is also in the stud. A most prolific breeder she has been, the dam of Great North, a horse that left some strong, useful horses in Aberdeenshire before he was sold at a high price to go to America, and also the dam of Lalla Rookh, by General (323), which had a great record of prize winning in the county, and was like her mother a splendid breeder. At present she has at foot a filly foal, by Cairnbrogie Stamp, which is expected to be heard of in the future, and her three-year-old filly, by Lord Erskine, a successful prize taker at Glasgow, Aberdeen and elsewhere, is a magnificent type of a low, thick set animal, which promises to grow into an invaluable brood mare. The rest of the stud is composed mainly of the descendants of the now famous Young Darling, purchased, as I have already mentioned, at the Knockdon dispersion at what was then considered the very high price of £290. This family now includes, besides the matron mare, Darling 3d, by Commander (1418), a horse of Keir descent, Darling 3d being a fine, low built, strong boned, characteristic looking Clydesdale, that has won a number of prizes. She is the dam of a fine breeding mare, Darling 4th, by Merry Mason, and in turn, Darling 4th produced Darling 5th, by Strathleven (1539), a noted prize filly which has produced at Cairnbrogie a magnificent yearling colt, by Cairnbrogie Stamp, which is to be shown for the first time next month (March) at the Spring Show of the Royal Northern Agricultural Society.

One of the fillies in the prize group at Glasgow, in 1885, by Lord Erskine, out of Darling IV, is now grown into a beautiful and stylish three year old, and there is still another daughter of the same mare and by McCamon, a two-year-old of great quality and substance, which looks like developing into a fine specimen of a brood mare.

Out of Young Darling, Mr. Marr bred the famous Cairnbrogie Keir (1993), which carried every thing before him in the United States in the year 1882, and proved himself a successful breeding horse in the stud of Colonel Holloway, Illinois. He changed owners several times since then, having on one occasion real-

ised the enormous figure of £1200, and he is at present perhaps the most prominent feature of the fine Clydesdale stud of the Galbraith Brothers, at Janesville, U. S.

But of course the most notable event in the history of Mr. Marr's fine old mare was when Cairnbrogie Stamp first saw light. As I have stated, he was by Lord Erskine, and is now four years old. At one year old he was not in great luck, probably because people thought he was too well filled out and developed at that age to be able to keep his place as an aged horse. If that was so, they have been sadly mistaken, for he has grown into an animal of magnificent proportions, standing seventeen hands high. He has filled out very proportionally in every way, carrying his shapes up along with him, since he was a foal. At the Glasgow, Aberdeen, Dumfries and Perth Highland shows, he won all the champion prizes open to him. Last year he had a very successful season in the Machars district, Wigtonshire, at £5, and this year he has been engaged by a committee of gentlemen in Moray and Banff at £10 for each mare, payable at the end of the season. When in full condition he would weigh considerably over 2,200 lbs., but his dam shows a still more remarkable record of weight. Last year at fifteen years of age, when she headed Mr. Marr's first prize family group at the Highland Society's show at Perth, she weighed no less than 2,184 lbs. She is a beautiful type of a Clydesdale brood mare, and would have had a more prominent show-yard career than she has had, but not being what might be called a ready breeder, Mr. Marr has had to keep her in moderate condition.

I may mention that when Cairnbrogie Stamp was two years old, his owner refused an offer of £1000 net cash for him from Mr. Alexander Baird, of Urie, and since that time he has on several occasions declined to sell him, though offered most tempting prices. At present he is admittedly the finest Clydesdale in this country.

There is no more enthusiastic and devoted breeder in the county than Mr. Lumsden, of Balmadie, who owns a valuable stud of well bred Clydesdales in which he takes great interest. The principal he is acting upon is to put the best to the best, and already he has the nucleus of a first-class stud, which under the careful management which it obtains at Balmadie, will soon make its influence felt in the Clydesdale world.

Some five years ago he bought a well bred filly Lady Margaret Bellenden (2492), by Prince Charlie (634), in foal to Happy Times, but the youngster succumbed to pink eye. In her next foal Mr. Lumsden was more fortunate, this being a remarkably pretty daughter of Lord Erskine, which for quality of bone and feather and true Clydesdale character, has had few equals in Aberdeenshire. She is named Lady Margerie Erskine, and has won a large number of prizes at the leading shows in Scotland. Lady Margaret is a half-sister to the famous Moss Rose and is a very big, wide mare with beautiful feet and pasterns, and her daughter is also perfect at the ground.

A two-year-old Lady Margaret filly by McCamon, is likely to grow into a mare of great quality, with grand feet and pasterns and clean thin bone.

Lady Beryl, a five-year-old, purchased from Mr. W. Park, Hutton, inheriting Prince of Wales blood, represents a valuable strain, and she has had a filly foaled by Golden Beryl (2328), which will be kept for breeding purposes.

A Macgregor mare named Sunbeam, bought from Mr. Andrew Montgomery, Newhall, is a thick-made mare of great quality and the best of feet and pasterns, which has been well placed in strong competition.

Most of these valuable mares have already proved their breeding qualities, and the others have been served with some of the first horses of the day.

The stud horse at Balmadie at present is the Bard (5391), a son of the celebrated Prince of Wales (673), and his dam is Mary of Carlung. He is a beautiful dark brown, with grand head and neck, and likely to make a valuable breeding horse. He shows a great deal of style and action and does not discredit in any way his fashionable descent.

A more recent purchase by Mr. Lumsden is a colt named Royalist, which was bred by Mr. James Lockhart Mains, of Airdies, Stranraer, out of a Prince of Wales mare and after Darnley. This is a marvellously good colt, wide in the barrel, short, but clean and active in his legs, with great quality, and evidently in the possession of a grand constitution. Should he fulfil the great promise he now shows, this is destined

to be a very valuable addition to the Clydesdale blood of the district.

A number of sales have been made from Balmadie, long prices being given, the stud being generally recognised as one of the most select in the district.

Mr. Lumsden has for several years been a very successful exhibitor at our national shows. It should be noticed how full of Prince of Wales, Darnley and Lord Erskine blood are these fashionable Clydesdales of Mr. Lumsden's.

What must recommend the Aberdeenshire Clydesdales in the eyes of foreign and other buyers are the natural conditions in which they are brought up. In a climate like ours they have to endure considerable hardships, for they are put out for a certain length of time all the year round. Cut oats forms the staple of their diet in most cases, and breeders generally, I am told, avoid condiments. Bran, hay and a little linseed cake are in addition allowed in other cases, and this only during the winter months. In summer when they are out all night, the horses get a little, but very little, in addition to what they can pick up.

It is considered better policy to serve the fillies at three instead of two years old, as the risks are less and the foals as a rule stronger. Two-year-old colts are used freely enough, but the mares must be restricted not more than fifteen to twenty-five at most, but for a horse in his prime, 80 mares are not considered too heavy a task to put him to. Mr. Marr's experience is that his mares are easiest to settle in foal where they are allowed to graze, getting nothing but what they can pick up, with a bit of hay or straw at night. There is one thing he never does, and that is, put his mares to service when they are newly out of the cart or plough and in a heated condition, the chances being that in that state they will not settle, and especially is this the case with fillies. If these are intended for service, they should be wrought very judiciously, and indeed the same rule would apply to mares. Light work and natural, not hard feeding, are essential conditions to success in getting your mares to breed, and under these conditions also the progeny is more likely to be healthy.

In the South a system prevails of giving young horses, and in fact aged horses as well, when being fed for exhibition, cow's milk to drink *ad lib.* It produces a fine coat, but it is not a practice that is adopted in Aberdeenshire. Our breeders, while not relaxing their efforts to keep up the standard of the Clydesdale as respects feet and pasterns, are not indifferent to the question of securing a barrel that will please the eye, combined with well rounded quarters, and proper carriage of head and neck. Cairnbrogie Stamp may be taken as the type which our breeders aim at.

I should have mentioned that the Balmadie stud is provided with well arranged, comfortable boxes, which are a local desideratum where a breeding stock is kept.

The horses here are kept in fine, natural condition. They are out all the year round, and I have noticed the youngsters which Mr. Lumsden brings out in the spring, as a rule, excel those from more inland studs in the abundance of beautiful feather, as they are also noted for their great quality and true Clydesdale character, fine bone, grand feet and pasterns.

I might have mentioned others who are engaged and deeply interested in Clydesdale breeding. The names of Mr. Lumsden and Mr. Marr come to one's mind somewhat prominently in this connection, but, had time and opportunity permitted, these rambling notes might have been extended, and I might have thus alluded to the work that is being done by others, and with corresponding success, to improve this noble breed of horses in the county of Aberdeenshire.

Feb. 25th, 1888.

QUIDAM.

"I desire to say that I am highly pleased and gratified with your excellently edited JOURNAL, that I am a subscriber to five agricultural papers, and yours would be last on the list I would desire to have discontinued."—Jos. M. Reitz Fountain City, Wisconsin, U. S. A.

"I like the JOURNAL well. There is a great deal of very useful information in it. I would not like to do without it."—David Halliday, Dunmore, Ont.

"I must warmly congratulate you on the steady advance of your JOURNAL. It is a credit to Canada and is destined to be a power in the land."—W. W. Hubbard, Belmont, N. B.

"I received the sample copy sent to me of the February number. I was greatly surprised at the merits of the paper or JOURNAL, and I think there is no journal in America equal to it. Hoping it will still more enhance my desire if I receive the other numbers."—John Gascho, Wellesley, Ont.

Should We Support the Provincial Exhibition?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR.—There is a growing feeling that our Provincial Exhibition should be stationary, and that the moving about from place to place is an unnecessary expense and therefore the centralizing of the exhibition in one place would do away with a great deal of the expense, and that the buildings and accommodation generally would be better, which is all true. But is the Provincial Exhibition for no greater and deeper use to the Province at large than this? The vital question in my mind is, would our Province continue to advance with the times in which we live in regard to our stock interests as it has done in the past, in such a case? I ask could the Provincial centralized be made so attractive to the extreme limits of our Province that new exhibitors would be drawn to it? If Toronto, Guelph or Hamilton, or any other central point were chosen as a permanent locality for the show, would the people of the Ottawa valley in the extreme east, or those of Essex and Kent in the west, take the same interest in it as if it made the circuit of these people every five or six years? The fact of the Provincial Show being brought into their midst would have the effect of bringing the farmers and their sons out, when they would learn what the real resources of our country are, which would stimulate them to come forward and try what they could do in the same line.

Again, is there any likelihood of this influence being felt in the same degree by those outlying districts from a central show in any one of the above mentioned cities? Would not the extra expense of coming so far tell materially against the more remote districts for all time to come, to say nothing of the hardship stock suffers in the long transit from one place to another, which outside of a radius of about seventy-five miles would be felt by all?

Another plan spoken of is to divide up the Government grant among the various central fairs of the country. This would not mend matters in the least, as the season is so short that most of these would hold their fairs in the same week. Exhibitors would then be effectually prevented from competing with those in other parts of the Province, so that we could not judge of the state of perfection to which any particular line of industry was being brought. The only remedy is, that one particular fair should move from place to place through the whole length and breadth of the Province, and give all parts of the country an opportunity of seeing what is being done. The money for keeping up the Provincial Show comes from all parts of the Province alike; therefore all parts should share alike, and rather than hamper the Provincial we should strive to help it on by seeing to it that we have honest and capable men on the board of directors, and rather than take from the grant, add to it. Twice the amount spent in this way will be a direct benefit to the country by developing its resources to their fullest extent.

WM. McCRAE.

Janeville, Guelph, Ont.

Restoring and Maintaining the Fertility of Soils.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

Will not some of your wise men of the east come to the rescue of such agricultural workers as are groping after facts, which shall denote the limits of profit in efforts to improve lands which need it?

After fertility has become impaired below a certain standard, their cultivation at least cannot be profitably continued, without the turning under of green crops and the liberal use of manure and of artificial fertilizers. So much we know already only too well. The usual practice with such lands is to keep them in grass as long as possible, looking to profit from the rearing and sale of animals, and the sale of their products. But in the 34th Annual Report of the Mass. Board of Agriculture for 1886, page 80, we are told that of the vast acreage of sterile lands in that State, which have long been abandoned to foul growth, a great part was formerly in "dairy farms," "good pasture land." One speaker declared that "within his recollection, they had been very productive lands," and he "believed that their loss of fertility was owing to the fact that they were fed years and years as pasture fields for dairy cattle." "They made large quantities of cheese and butter; they raised their cattle. There was a great deal of beef fattened in Berkshire

county," etc. So that even the droppings of animals, very much of it, no doubt, grain fed, nor the nutrition obtained by the herbage from the atmosphere and rains, sufficed to prevent absolute exhaustion and barrenness. So we are not helped much, at least not in all cases, by dairying.

Now, an agricultural teacher and close observer, a practical man of extensive and successful commercial experience with soils, gives his testimony as to manures; and admonishes us with earnestness and entire positiveness: "Manure must be freely applied. I never yet saw a soil of any kind that had borne a crop of vegetables that would produce as good a crop the next season, without the use of manure, no matter how 'rich' the soil may be thought to be. We believe the common practice of top dressing asparagus beds in fall to be a very wasteful one, in districts where it is not necessary to provide against severe freezing, for a plant is then dormant, the juices of the manure are either evaporated or else washed down by rains below the roots. All our practice, corroborated by direct experiment, has convinced me beyond all doubt that manures, either liquid or solid, organic or inorganic, are unprofitably employed when applied to plants in the dormant state." So, although we are instructed to use manure liberally, we must wait until the last moment to apply it.

Again: "Necessity for heavy manuring." "The crop of wheat is never expected to pay for the manure. It is the after crop of grass that we are laying the foundation for; and here is where the profit of the heavy manuring comes in. I have put on as high as twenty-four tons per acre." He goes on to say: "It is a delusive belief that manuring or tillage, no matter how good, will ever bring a poor thin soil into permanent fertility, unless the application of manure is yearly continued; for no ordinary amount of manuring or cultivation will maintain the fertility of any soil over two years, as it will then either have been taken up by the crops growing on it, or else have been washed down below the depth at which roots penetrate."

These statements are made on authority as weighty as any can be on such points. It seems, therefore, to be a race of diligence between the manure and the plant. The manure hastens to percolate through the soil under some cogent impulse, and if there is not sufficient hungry plant-life in readiness to appropriate it before it sinks, the loss is beyond control. And yet not only "annual" but "heavy" manuring is indispensable, if paying crops are expected.

Now the soils referred to were already in high condition. It must be assumed that they were well supplied with vegetable matter, and were, no doubt, selected with reference to the supposed tenacity with which they would "hold improvement." There appears, therefore, no escape from the conclusion that as to manures, the soil serves as little more than a filter.

Those of us who have been educated to believe that fertilizers became an integral part of the soil, amalgamated and homogeneous with it, mechanically and chemically, and that the retention of manure was dependent upon the character of the subsoil, will not relish what Sir John B. Lawes declares to be true in the matter of the "exhaustion of fertility" by cropping. Hear him! "While the restoration of the carbon and nitrogen, which a soil originally contained, can only be effected by very costly processes, for instance, ploughing two hundred tons of dung upon an acre of land, the condition of the land could be improved. Large crops could be grown every year by various processes. We use the word condition as signifying land which, by reason of artificial manure and the feeding of cake, is yielding much larger crops than the land is competent to yield from its own natural sources. My endeavor was to draw a distinction between the restoration of lost fertility and condition; the two are quite distinct in my mind." And Professor Lawes explains that by the use of "chemical salts" he has grown every year, for forty years, such and such large crops. Now (if he is understood by the writer) you can, by importing sufficient plant-food into the soil, grow pretty much what you please. But we think the considerations previously stated ought to be influential in determining the question of the financial economy of such undertaking.

Now, Mr. Editor, after hearing from these great agricultural lights, those of us who have been trying and hoping to improve poor lands, become very decidedly "pricked in our hearts," and are disposed to cry out, with the Apostles, "Men and brethren,

what shall we do?" Are we really engaged in such a work of moonshine as would appear from these promulgations? Large interests are involved in the solution of this question. The capital absorbed in North America in this undertaking exclusively must be countless millions, to say nothing of the results to those engaged in its prosecution.

INVESTIGATOR.

Virginia, U. S. A.

Nutritive Feeding Value.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will you kindly publish the ascertained nutritive feeding value of rye straw as compared with wheat and oat straw?

Why are feeders so constantly recommended to feed ground oats? The miller's toll is costly, to say nothing of the cost of hauling and handling. The whole oats are, it would seem, sufficiently digestible. What is gained by grinding them or lost by not doing this?

Virginia, U. S.

PIEDMONT.

The following is the analysis given by Stewart, of those kinds of straw referred to:

	ORGANIC SUBSTANCES.						
	Water	Ash	Albumenoids	Fibre	Other Carbo-Hydrates	Fat	Albumenoid Ratio.
Rye Straw	14.3	4.1	3.0	44.0	33.3	1.3	1:46.85
Wheat "	14.3	4.6	3.0	40.0	36.0	1.2	1:45.63
Oat "	14.3	4.0	4.0	39.5	36.2	2.0	1:29.11

	DIGESTIBLE NUTRIENTS.				
	Albumenoids	Carbo-hydrates including fibre	Fat	Nutritive ratio.	Value per 100 lbs.
Rye Straw	0.8	36.5	0.4	1:46.9	35
Wheat "	0.8	35.6	0.4	1:45.8	37
Oat "	1.4	40.1	0.6	1:29.9	45

The nutritive ratio is, rye, 1:46.9, wheat, 1:45.8, oats, 1:29.9. The albumenoid ratio is simply the relation between carbo hydrates and albumenoids, fat being reduced to carbo-hydrates, by multiplying by 2½.

The answer to the second question depends largely on the adjuncts fed along with the oats, and the animals to be fed. When horses are fed cut hay, it is better to have the oats ground and fed mixed with the hay, which precludes any waste of the former; but when fed long hay, it is questionable if it will pay to grind the oats. The same may be said of sheep and young calves. When fed to cattle on cut straw or hay, they are better ground, as then they are ruminated along with the former. When they have to be drawn a distance to and from the mill and the toll allowed, the profit of the process in any case is doubtful, but when ground by wind power at home, they can usually be fed more profitably when ground.

Ground Linseed and Oilcake.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—My greatest concern now is where to buy oil-cake, ground or unground, or unpressed ground linseed for stock purposes at a reasonable rate. Dealers here charge at the rate of \$40 per ton, which is at least \$15 too much. Now, Mr. Editor, where in Ontario or Quebec can this commodity be obtained at a reasonable price? Please give me the address of the largest oil mill or the largest linseed dealer in Ontario or Quebec, that I may be able to get this necessary article of stock food at a paying or wholesale rate.

WM. H. PRICE.

Butternut Ridge, N. B.

J. & J. Livingstone, Baden, Ont., own a very large mill, we think it is, perhaps, the only one in Ontario. There is one in Manitoba, but we cannot give the address. It is not to the advantage of those who manufacture oilcake or linseed meal to keep themselves so carefully hid that editors even cannot find out their whereabouts.—Ed.

The Clydesdale Stallion Show.

The second annual Clydesdale stallion spring show held under the auspices of the Clydesdale Horse Association of Canada, took place in the Drill Shed, Toronto, on the 15th March.

The entries numbered thirty-six, of which eleven were in the class for stallions foaled previous to 1885, fourteen in the class foaled in 1885 and eleven in the class foaled in 1886. In Class I there were six competitors; Class II, twelve, and Class III, seven. The absence of the horses entered, but not on the ground, was caused by the great snow storm which swept over the whole of northern and eastern Ontario, and kept away many persons from the show who otherwise would have been present. Tobias Caster, Goodwood; Graham Bros., Claremont; Jas. I. Davidson, Balsam; Philip G. Button, Ringwood; Major Hodgson, Port Perry, and W. B. Robertson, Charlottetown, P. E. I., were all prevented in this way from getting forward with their respective exhibits. A goodly number of horses of a high order we noticed were not there, including Self-Esteem (5344) [377], owned by the Messrs. Whiteside & Glendinning, Ellesmere; the Messrs. John Miller & Son's Dornock Davie; the studs of Sorby Bros., Guelph; Morris Stone & Wellington, Welland; Jas. Gardhouse & Sons, Malton; Jeffrey Bros, Whitby, and many others whom we might name. Mr. Wm. Moffatt, Paw Paw, Ills., Mr. Robert Ness, Howick, P. Q., and Mr. J. Bell, Athelstone, P. Q., were the judges.

In Class I, the first prize went to Abbot of Rerwick [575] (5474), a grand show horse owned by R. Beith & Co., Bowmanville, Ont. He is rising four years. His sire is Belted Knight (1395), and dam Kirkcanswell Trim (413). The second prize went to Gold Finder [714] (3661), owned by Jonathan Porter, Oshawa, a horse imported by R. Beith & Co. in 1885, sired by Warrior (902), and out of the dam Lovely of Maidland (2574). The third prize was won by John Palmer, Richmond Hill, with Richmond [338] (4666), imp. by W. Rennie, Toronto, and sired by Springhill Darnley (2429), dam Belle of Kirkroads (2914). Mr. Rennie's Bravissimo [579] (4870), sketched in the December number of the 1887 JOURNAL, came fourth. He is sired by Belted Knight and out of the dam Meg of Sypland (444), and is a horse one need not be ashamed to own in any company. The Messrs. Beith's Roger (441) (4071), a large, massive horse, stood fifth.

In Class II, the contest was peculiarly interesting, and the judges took ample time to decide. The Messrs. Beith came first, second and third with The Granite City [709] (5397), sketched in the November issue of the JOURNAL, 1887; second with Lord Fitz-Erskine [710] (5084), and third with Wellington's Heir [577] (5438). The first and second of these are by Lord Erskine (1734), and out of the dams Bee (919), and Polly Ann (4872), respectively. Wellington's Heir is by King of the Forest (1170), and from the dam Sally of Birket (5076). The Granite City with a good head, good feet, good leg, fine deep rib, superb pasterns, stands a peer amongst his fellows. W. Rennie came fourth with Silver Duke [535] (5345), by Breadalbane (1978), a nice, neat horse and a good mover; and Thos. Meagher, jr, Doncaster, came fifth with Dumbarton Jock [730] (5728). This horse, very neat but not very large, is by His Royal Highness (2165), and the dam Rosie of Westfield (6645), by Ivanhoe (596). Some good ones were passed by in this class.

In Class III, Dandas & Granby, Yelverton, were first with Glenorchy [716] (5820), sired by Breadalbane (1978), and out of the dam Sally (5076). This horse is well up in points, and won 1st at Kilbride before he was imported, and is but one of a number of fine ones shown by this firm, who also came third with a get of Lord Hopetown (2965), named Mariner [718] (6073), a fine showy horse of easy action. R. Beith & Co. came second with Sailor Prince [712] (6257), by Old Times; (579) and Andrew Russell, Carrville, fifth, with Star of Fintray [708] (6316), a pretty beast and showy. Mr. Russell had also a number of other horses, good ones, and the same may truly be said of Percy & Young, Bowmanville.

Some other very good ones did not get a place, prominent amongst which was Brown James [731] (5595), owned by David Anian, Pickering. This is evidently a fine stock horse.

The sweepstakes prize was an easy first for The Granite City, owned by Messrs. R. Beith & Co., Bowmanville, and a handsome prize it was—a gold watch valued at \$75, presented by Messrs. E. M. Morphy, Son & Co., Toronto, gentlemen whose names so often appear as donors at the agricultural fairs of Ontario, as to entitle them to the gratitude of the whole country and the warmest thanks of the Clydesdale association on this occasion. One is curious to know what the result would have been if the Messrs. Graham Bros.' hitherto unbeaten Macarthur [360] (3815) had come into conflict with The Granite City, and whether the result would have been any different had Macarthur's younger brother, Macphail [368] (4567), put in a claim for first honors. James I. Davidson's Darling's Prince [59], bred at Balsam, might also have pushed some victorious competitor aside.

The show was very successful, and reflects very much credit on Mr. David McCrae, the president of the association, and on all the management. Alderman G. F. Frankland, of Toronto, who so often turns up just at the right time, when important work in the live stock lines is to be done in Toronto, was instrumental in securing the use of the drill shed, a very suitable place for holding the show. All the Clydesdale men of Canada thank him for this. \$113 were realized at the door; and legislators, aldermen, citizens and farmers looked on with much apparent interest.

It is highly important that our horse shows should prove a real success. In 1887 we sent to the one country lying along our southern border 4826 head of horses free, valued at \$1,141,221, and 20,699 head dutiable, valued at \$2,289,373, and the trade is rapidly growing.

Cutting Fodder.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Would you please give your opinion in reference to cutting straw and hay for fodder. Does it pay? If so, what are the most profitable kinds of feed to cut? Does it pay to cut hay?

JOHN D. FRASER.

Warwick West, Ont.

It will not pay to cut hay or straw and feed them separately and without the addition of a meal ration. It may pay to cut them and feed them mixed without the addition of a meal ration when fodder is scarce and dear. It will always pay to cut them and feed in conjunction with meal. The advantages are: 1, that much more straw will be eaten in this way; 2, that a saving will thereby be effected in hay; 3, the meal is better utilized, being subjected to the process of rumination when thus fed. —E.

The Dominion Ayrshire Breeders' Association.

(From our own correspondent.)

This Association met in the Agricultural Hall, Toronto, on the 14th March.

The following officers were elected: President, Jas. McCormack, Roekton; Vice President, David Nichol, Catarqui; Secretary-Treasurer, H. Wade, Toronto. Executive Committee: James Yuill, Carleton Place; E. W. Ware, Hamilton; Thos. Guy, Oshawa; W. M. Smith, Simcoe; Archibald Kain, Byron, and M. Ballantyne, St. Marys.

The constitution, as read at the Kingston meeting in January last, was adopted with a few changes suited to Ontario conditions.

The following motions were then passed with much unanimity:

1. "That all animals recorded in the Dominion Ayrshire Herd Book, volume one, new series, shall be divided into two classes, viz: 1st Class—Animals that trace on side of both sire and dam to importation from Great Britain. 2d Class—Animals not clearly proved to trace to importation owing to the imperfect manner of keeping records prior to the commencement of registration, which have already been recorded as pure-bred, and their progeny. This class to be published in an appendix with a distinct set of numbers. That

the symbol to be used for the new series be a dash on either side of the numbers, as follows: —I—. For the appendix the same sign with the addition of the letter to the number, as follows: —AI—."

(2) "That the secretary be authorized to request Mr. Rodden to return the books and the pedigrees not accepted for the Canadian Ayrshire Herd Book, as well as to furnish copies of all cattle recorded in the Canadian books sent through the secretary, Mr. Wade, during amalgamation."

(3) "That the secretary be authorized to prepare and issue a circular to the Ayrshire breeders, giving the new standard and urging them to support the Dominion Ayrshire Breeders' Association."

(4) "That all Ayrshire cows exhibited at the exhibition of the Agricultural and Arts Association, and at the Industrial Exhibition, be milked clean at 7 p.m. on the day previous to the day of judging."

An offer made by Mr. Thomas Guy, of Oshawa, to donate a silver medal to the breeder of the Ayrshire bull and cow that take the first prize at the next Provincial Exhibition, was accepted. The meeting then adjourned.

Scrubs.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Well knowing your ability as a writer, and having no regard for raising scrubs, I would like you to devote a small space, say half a column of the JOURNAL each month, and use the strongest language against them and the men who raise them. I will agree to copy it and get it inserted in our local papers. I am working hard against scrub cattle. I have sent you a new subscriber and paid the same myself in the hope of getting the person to whom I refer convinced of his mistake, by reading your paper.

PETERBOROUGH.

Our correspondent will find in every number of the JOURNAL much that might be profitably copied by the local papers on this question, and as often as we can we will give some particulars in a more condensed form, as he suggests. We regard it as a main feature of a life-long mission to war against the scrubs, and it is a war that will admit of no truce. The dying agonies of the last of the scrubs in the act of dissolution can alone satisfy our desires in regard to them. But we cannot say a word against the owners of them. They are bone of our bone and flesh of our flesh, and though they are keepers of scrub stock, we are brethren. We are only sorry that they persist in keeping scrub stock to their hurt, deliberately keeping their eyes closed to the light.

Our friend, "Peterborough," struck on a line of argument that is likely to prove most convincing when he sent us the name of the subscriber to whom he refers. It is the misfortune of most persons who keep scrub stock, that they will not subscribe for a paper which would show them their mistake, hence, one generation goeth, and another cometh along this way of sorrow.

Grading Up or Down.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Please give your opinion, would it be better to use my own bull to his dam, as he is pure bred, or use a common bull, as I must use one or the other? There is no other full bred bull near me.

WOODLANDS.

By all means use the pure bred bull if he is eligible for registration. Although in-breeding is not to be encouraged in ordinary cases, yet it cannot be denied that some of the best herds in existence have been obtained in this way. It is when the process is long continued and the mating injudicious, that the results are baneful.—E.D.

AN active agent wanted at every post office in Canada. Farmers' sons wishing to make a little money should write at once for particulars.

The Park Herd of Herefords.

The herd of pure-bred Herefords from which we have selected Miss Broady 23852 for our illustration on this page, although but recently established, is certainly one of the most promising in the Dominion. Mr. F. A. Fleming, the owner, is a native Canadian who obtained his preference for Herefords partly at the Ontario Agricultural College, Guelph, and partly from a residence of one or two years in England and Scotland, where he went to acquire special knowledge in matters bearing on agricultural pursuits. This preference was strengthened by the results of the famous beefing contest conducted for some years by Prof. Brown, of the Ontario Agricultural College, Guelph, of which our readers will remember very

best animals obtainable, regardless of expense. The first purchases were made in 1883, since when Mr. F. has year by year added choice importations of the best known strains, as the Sir Thomas, Sir Benjamin and Sir David, and the even more famous Horace and Lord Wilton blood. The latter bull, it will be remembered, was sold for more than \$19,000 at eleven years. A very fine lot was imported in 1885. On the day they left England it was cabled to the *Toronto Globe* that amongst other fine animals the best Hereford cow in England had left for Canada to form a part of Mr. Fleming's herd. That cow, the famous Miss Broady 23852, the subject of our sketch, a first-prize winner at the Royal, England, and with an unbeaten record in Canada, though shown at the leading exhibi-

young bull Conqueror, sired by Conqueror, purchased from her Majesty for the Ontario Experimental Farm, and which England was anxious to have returned again for the replenishing of her herds. In reference to this herd, which numbers 75 head, the remark of a critic which we give below, exactly meets our view. It reads: "It would not be easy to find a collection of thoroughbred stock, in which greater care had been taken to stamp the animals composing it with a high type and character."

Mr. Fleming is to hold an auction sale of Herefords at the Park, which is but a short distance from Weston on the main line of the G. T. R., and but nine miles from Toronto, on Wednesday, April 11th,



MISS BROADY 23852.

Imported by and the property of Mr. F. A. Fleming, "The Park," Weston, Ont.

well, and in which the Herefords came off victorious. In this contest the increase in weight of the Polled Angus grade was nine per cent. over the Shorthorn, and of the Hereford grade fifteen per cent. Experience on the ranches had also established the happy suitability of the Herefords as graziers, and in the famous annual contests at Chicago the Herefords threaten sometimes to push the other beefing breeds hard against the wall. One wonders that they have not become more numerous in our midst when their adaptability to the producing of shipping cattle is considered, by using the bulls on the grade cattle of the country, but we cease to wonder at anything when we think of the strange infatuation that leads so large a majority of our farmers to content themselves with keeping scrubs.

This herd has been built up with the blood of the

best animals obtainable, regardless of expense. The first purchases were made in 1883, since when Mr. F. has year by year added choice importations of the best known strains, as the Sir Thomas, Sir Benjamin and Sir David, and the even more famous Horace and Lord Wilton blood. The latter bull, it will be remembered, was sold for more than \$19,000 at eleven years. A very fine lot was imported in 1885. On the day they left England it was cabled to the *Toronto Globe* that amongst other fine animals the best Hereford cow in England had left for Canada to form a part of Mr. Fleming's herd. That cow, the famous Miss Broady 23852, the subject of our sketch, a first-prize winner at the Royal, England, and with an unbeaten record in Canada, though shown at the leading exhibi-

tions in the Dominion, since her importation, is certainly one of the best of this breed in the old world or the new. Sired by Downton Grand Duke 4182, and with Broady 9th 23853, by Alphonso 9961, for dam, she traces through seven of the Broady family without a break in her lineage. Her breadth and solidity are marvelous. The Herefords of the Park have won the full share of prizes in the showings of Canada during recent years, the old bull Corporal, from which much of the young stock is descended, being a first Provincial prize-winner, and in 1887, a bull calf of Mr. Fleming's breeding won first at the Provincial, Guelph, and at Toronto the same year first and silver medal as the best bull of any age. The present stock bull Earl Downton (12797), imported in 1884, pushed closely Mr. Cochrane's celebrated Cassio for first honors at our exhibitions last autumn. Another fine

when a large contingent will be sold. Particulars of the sale will be found by reference to the advertisement on another page, and to the sale catalogues, which will be forwarded on application.

"I must say I am very well pleased with your journal, and find it to be just what every farmer requires. Give the 'scrub' no quarter."—Christover Martin, Egansville, Ont.

The longer I take your journal, the better I like it and think it is just what every farmer needs." C. J. White, Charing Cross, Ont.

"The JOURNAL is both interesting and instructive, being fraught with useful information respecting stock and agricultural matters in general. It has stimulated the other papers to put forth greater efforts to secure the patronage of the farming community, and is now in the front ranks of agricultural journals in Canada."—C. C. Watson, Bridgen, Ont.

Veterinary.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.
Strangles or Distemper.

BY F. C. GRENSIDE, V. S., GUELPH, ONT.
(Concluded.)

Although this disease appears to exist all over the world, or wherever horses are kept, and is comparatively speaking a prevalent ailment, so common that almost any one who has had any experience at all amongst horses, has had opportunities of witnessing attacks of it, and it has been written about and investigated by the best veterinary talent in the world, still we cannot say that the exact nature of the trouble is understood. It would undoubtedly be interesting to have its true nature elucidated; but it is questionable if more precise knowledge regarding it were possessed, whether we would be any more capable than we are at the present time of controlling it, either in the way of prevention or cure. Certainly some morbid matter exists in the blood, deranging the vital fluid, and thus causing a general disturbance of the system.

It has not yet, however, been clearly demonstrated what the character of that morbid matter is; whether it is living matter or a chemical substance or whether it is developed or generated in the animal economy, or whether it is an extrinsic product. An old theory is, and one which some believe in at the present time, that there is an accumulation of effete material in the system, due to sluggish working of those excretory organs whose office it is to remove used up material. This theory, however, can hardly be reconciled with the fact that strangles is communicable from the diseased to the healthy; for it has been observed that on the introduction of a subject of distemper into a healthy stud of horses, that the disease has spread, and attacked animals of all ages. Unless this suspected effete material assumes a definite form, or in other words becomes an organized poison, it is hardly conceivable how it can be transmitted from one animal to another; and if we admit that there is an organized poison generated in the system, then we come in opposition to what has been proved, viz., that life never generates spontaneously.

It is much easier to recognise that strangles is due to a living germ, like some other diseases have been proved to be, and that this germ exists here and there, and is readily transplanted from one place to another, and that if it comes in contact with a suitable subject it may attack it.

We find that colts are usually most susceptible, and we can readily understand that young, growing and unhardened animals would prove suitable soil for a parasite that successfully attacks the equine race under favorable conditions.

It has been found that the germs of diseases grow very virulent on passing through the system of a weakly animal; and this may account for the fact that the young, growing and weakly colt is usually the one first attacked in a stud, and that the matured show a strong resisting power, only succumbing to the action of the virus of the disease, when it has assumed unwonted activity.

Although we have very strong evidence of the contagiousness of strangles in some instances, still there are many cases in which there does not seem to be the slightest likelihood of it having been conveyed directly from the sick to the healthy. Assuming that the poison is a living one, we can understand that the living particles which form it exist everywhere, and only require suitable conditions in order to bring them into activity, and render them capable of making a

successful attack upon susceptible subjects. Naturally one would assume that any accumulation of the excretions of horses, however slight, would form a suitable habitat for the germs of a horse disorder to lurk in, and become active, and if any inhabitant of a stable was in a susceptible condition, the germs on entering the system of such a subject would flourish at the expense of the health of the victim. The poison seems to remain latent in the system for a varying time, but as soon as evident symptoms of illness are manifest, fever is present, and the temperature remains heightened until the abscess matures and bursts, then the fever soon subsides, and, as a rule, the subject regains his health.

Some consider the restoration to health is due to the poison being eliminated from the system with the discharge from the abscess; and that this explanation accounts for the fever not leaving until the abscess discharges. But the knowledge gained from the experience of some other diseases would indicate that the poison had spent itself, and the maturity of the abscess shows that the ailment has run its course, and that the poison which has caused it has nothing more to feed on in the exhausted system, and consequently must leave it. There are other diseases to which the lower animals are subject, which are due to a specific poison, and that give rise to no lesion that would act as an outlet for the morbid matter, and consequently it must be discharged through some of the ordinary excretory channels, as the bowels, kidneys, lungs, or skin. This appears to be the case in strangles.

After the poison leaves it, then the system has to overcome the evil results of its presence, which are mainly depletion, and the changes which have taken place in the upper air passages, sometimes showing themselves by sonorous breathing, as roaring, whistling, etc. The blood becomes impoverished and altered from the action of the disease virus upon it, and to such an extent in exceptional cases, that restoration to health does not occur after the elimination of the poison; but more serious blood disorders follow as sequels to distemper.

In the majority of instances recovery occurs. The circumstances which particularly influence the course and termination of an attack of strangles, are the subject, whether strong or weakly, the surroundings and treatment, and the character of the attack, whether benign or malignant. In some cases, where the subject is vigorous and the surroundings good, the disease assumes unwonted virulence, which would indicate that the activity of the germs varies under different circumstances. There is no disease to which horses are heir that demonstrates so forcibly the importance of attention to veterinary hygiene, particularly the purity of the air and cleanliness.

Experience teaches us that where horses are overcrowded, or in other words have not sufficient space from which to get their air supply, or if the droppings from the inhabitants of the stable are not frequently removed, but allowed to decompose and give off unwholesome emanations, the air becomes charged with impurities which are taken into the lungs, and thence to the blood, in every act of breathing. Thus the already pure vital fluid becomes more poisoned, rendering the attack more severe and the recovery more prolonged, or perhaps bringing about a fatal termination. It is particularly essential that the stable in which distemper patients are kept should be roomy, the impurities allowed to exit through the roof, and fresh air introduced without the production of draughts. In cold weather this may cause the temperature to be unduly low; but this can be compensated for by clothing the body very warmly. A loose box is

most conducive to a patient's comfort. Good, rich food should be allowed at will, and the appetite tempted by a variety of diet, a portion of which should have a laxative action, as bran mash, boiled grain, or roots. Cold water should be constantly before the patient, in quantities of half a pailful at a time. Three times a day half an ounce each of nitrate of potash and sulphate of soda may be mixed with the drinking water. If the patient will drink skim-milk, it is beneficial.

As soon as the abscess begins to soften it should be opened. Poulticing will encourage the formation of matter and lessen the soreness of the jaws. If there is much soreness of the throat, as indicated by protrusion of the nose, difficult, sonorous breathing, and cough, the application of a stimulating liniment, asthily mixed mustard and water, to the surface round the throat, will be beneficial. As soon as the acute symptoms subside, tonics and good food should be attended to.

Sudden Death of a Young Bull.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Quite recently I lost a valuable Shorthorn bull. In the morning he was all right, ate his dinner the same day. When the man cleaned him he was quite playful. The same person went in about four o'clock to take him out to water, and just as he entered the stable the bull dropped dead. When opened his heart and liver were perfectly white, with considerable fat about the heart. Can you tell me the cause of his death?

SUBSCRIBER.

Kent Co.

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

From the sudden death, I would infer that there had been some diseased condition of a blood vessel, and that it had suddenly given way, allowing escape of blood. The correspondent says nothing about finding any escaped blood, so that possibly the rupture may have taken place in the brain, and caused pressure on the brain substance, with arrest of its functions.

The Farm.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

What we Have Learned in Reference to Grain the Past Season.

BY THOS. ELMES, GRAIN EXPERIMENTER, PRINCETON, ONT.

1. That it is imperative to sow all spring crops early, on well tilled, well drained soil, if we are to reasonably expect success.

2. That all old, worn out, late ripening varieties are sure to be overtaken by rust and blight, and will not pay expenses; while all early, strong, vigorous varieties are sure to be a success.

3. That it is useless to sow spring wheat in Ontario unless it is done before the 28th day of April, and we must also take particular care in the choosing of the varieties we select for seed, as our past seasons have been particularly trying to this cereal. We must, therefore, select varieties which are strong, vigorous growers, with sap vessels well protected by fibre of straw, so as to resist rust, and it is also advisable to have bearded varieties, as these are not so liable to blight. In all cases the land must be fall ploughed, or failure is almost certain.

4. That barley has been the best paying crop this past season, and in all probability will be poorest next, as all are determined to sow a large acreage, and over production will doubtless be the consequence.

5. That peas must be sown early, as all early sown were a good crop, or nearly all, while those parties

who waited for the moon and sowed late will be obliged to look to that luminary for the crop.

6. That grain swindlers still have a strong hold upon the farmers of this Province, and have sold a large amount of worthless grain at fabulous prices, making the farmer believe, through their oily tongues and cunningly devised schemes, that by investing he would immediately attain unto wealth and affluence.

7. That when a farmer gives his note of hand for an amount, no matter what has been the extent of the fraud perpetrated to procure it, or what outside agreement he may hold to secure the amount of note, he always finds when the same falls due it is in the hands of a third party, who pleads innocent in the matter. The note must be paid, and the farmer must look in vain for the fulfilment of any agreement he may hold from second party.

8. That it is wisdom for the farmer to purchase seed only from honorable residents of our own Province at reasonable prices, and of tried varieties, and not to patronize itinerant seed pedlars and swindlers, as it was never yet known that a single variety introduced by them was worthy of being sown.

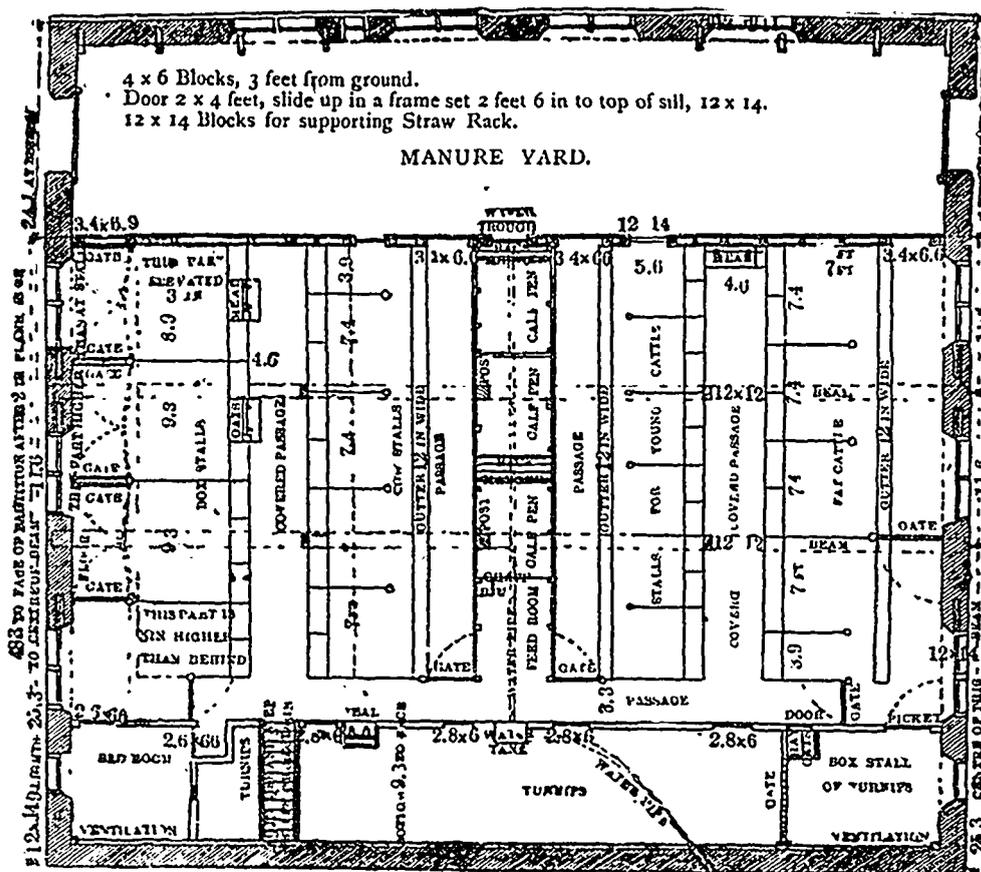
9. That in all probability Commercial Union would be a relief to the embarrassed farmer, although their seems to be two sides to this important question.

10. That it is important we should turn our attention more to stock raising and dairying, so that if our grain crops partially fail, after we have done our best, we still have our stock and dairy, hence the loss will not be so heavily felt. Our lands would also become richer if an equal proportion were devoted to these branches as is sown to grain. No doubt mixed farming is altogether the best for Ontario; but let us unitedly strive for the best grains, best stock, best product of the dairy, and prosperity will still be ours.

Orchardville Basement Barn.

The accompanying diagram shows the ground plan of the new barn built recently by the Messrs. Caldwell Bros., Orchardville, Ont. It is in many respects a model plan, especially as regards economy of space. This barn stands with its end to the main road, the basement wall facing which is twelve feet high, and built in courses with stones alternating, dark and light. The corners are of cut stone, and there are arches over the doors and windows. The stable floors consist of three-inch rock elm planks laid in a heavy coat of mortar. The four box stalls in one end are intended for mares and young colts, the working horses being kept at another stable. The joists above the stable are maple 3 by 10, and 2 feet apart. Those over the root-cellar are cedar. Instead of double stalls, as shown in the plan, these have been changed to single stalls 3 feet 9 inches wide, some of which are short. The water supply comes from a spring 600 feet from the barn, and has a fall of 8 or 10 feet. It is conveyed into every stall and is self-feeding. The stall-posts are all cedar, six inches square. As the description forwarded with the plan is not very full, we feel quite safe in assuming that the Messrs. Caldwell will be very pleased to give any further information on application. The plan was drawn by Mr. Thomas Ruddle, Oustie; the stonework, which is a good job, by McDonald Bros., Durham; and the carpenter work by James Reid, Varney.

The Messrs. Caldwell Bros. have not been long engaged in farming, but they are bringing that intelligent application of business principles to their work which enables them to push it on rapidly, and yet safely. They are following a mixed system of farming, and give much attention to breeding horses, princi-



BASEMENT PLAN OF BARN OWNED BY THE MESSRS. CALDWELL BROS., ORCHARDVILLE, ONT.

pally of the roadster types, and to dairying. They are the owners at the present time of 16 head of Ayrshire cows, registered in the Canada Ayrshire herd book, purchased from Mr. N. P. Ball, Rock Island, Vermont, and they are also gathering Jerseys.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Weeds.

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

V.

CLASSIFICATION OF WEEDS ACCORDING TO NATURE AND HABITS.

LEGUMINOSAE (PULSE FAMILY.)

A family of great economic value, supplying us with some valuable plants, such as beans, peas, clover, etc. Many of the flowers are very irregular and present a striking appearance. There are usually ten stamens, nine united into a sort of tube, and the seeds are generally borne in pod-like structures.

Vicia — (Wild Pea). This weed is becoming very common in some parts. As yet it has not come directly under my notice, but from descriptions given, it appears to be a tare rather than a pea, and probably is the variety *vicia cracca*, common in Britain. It bears many bright blue flowers, the tendrils somewhat branched, and the rootstock creeping. Where this weed has got a firm foothold it will require thorough cultivation to get rid of it. It ripens its seeds early, so that they are thus matured before the crops are harvested, and seed the ground for another year. The growing of clover and thorough working of the soil will eventually suppress it.

Medicago Lupulina (Black) Medick, Nonesuch, Yellow Clover). This plant is more commonly known as yellow clover, and is often sown as such. It is a

very good pasture plant, being pretty much the same as yellow clover in chemical composition, but in some parts it has usurped the land and become a weed. It can be distinguished from yellow clover in the form of its seed-pods, which are kidney-shaped, and turn black when ripe. Care requires to be exercised so as not to allow this species to spread. Where it has got too strong a hold, summer fallowing will kill it out.

Medilolus Alba (Bokhara, Sweet Clover). This rank species, from three to five feet high, in several places has become a weed. The flowers are white, but in the species *M. Officinalis* they are yellow. Both forms are seen growing by the wayside in some places. In Welland county the railway track is covered with it. It flowers pretty much all summer. Where either variety reaches the fields they soon disappear before thorough cultivation. The roots do not continue longer than two years, consequently constant stirring of the soil and preventing the formation of leaves will soon end the plant's existence.

UMBELLIFERAE (PARSLEY FAMILY).

The stems in this family are usually hollow and furrowed, and the flowers in so-called umbels. Some species are aromatic. Here we find several economic plants, such as carrot, parsnip, celery, carraway, parsley, coriander.

Daucus carota (Wild Carrot). This biennial has become a great nuisance in some parts. The stem, two to four feet high, is heavy, leaves much cut, plant of a grayish green; root spindle-shaped, fleshy and yellow; flower umbels flat, but becoming concave in fruit; the flowers are whitish, or tinged with purple. Being a biennial, it is best destroyed in the second or flowering season. Hand pulling and throwing into a heap to be destroyed as fast as it produces flowers,

will be effective. Cutting well below the surface should be effective, but merely cutting the plant near the surface is more likely to increase its vigor.

Cicuta maculata (Water Hemlock, Cow-bane). This poisonous perennial plant has tall, smooth stem, sometimes streaked with purple, and is usually found growing in swamps; leaflets lance-oblong, coarsely toothed. The root is a deadly poison, and should be destroyed when discovered.

Conium Maculatum (Poison Hemlock). A plant with rather stout, smooth and spotted stem, two to



Conium Maculatum (Common Hemlock).

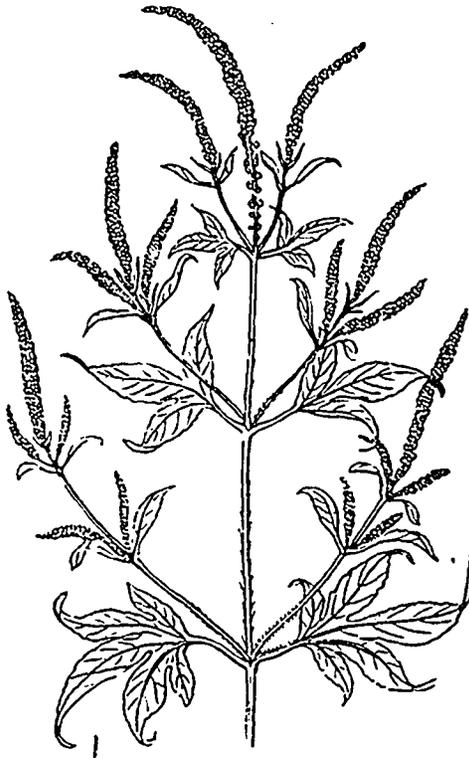
four feet high; plant bluish green, and very compound leaves; root fleshy. This is a very poisonous perennial plant, and wherever found should be rooted out.

COMPOSITE (COMPOSITE FAMILY).

One of the largest orders in the plant kingdom, embracing about one eighth of all the flowering plants, or about 10,000 species, and yet comparatively few plants of economic value are found in this great family. Fruits, vegetables and forage plants must be sought elsewhere, but here we find some very troublesome weeds. Plants in this order produce a great number of seeds, for what at first sight seems to be a simple flower is in reality many flowers. A single dandelion flower mass contains in the vicinity of 150 to 200 flowers, hence the term composite flowers. Some interesting garden plants are in this group. One of the chief characters of the flowers is their beauty in close heads, composed of many florets embraced by numerous leaflets (tracts forming a general covering convolvulce). The flowers of the thistle, dandelion and sunflower may be taken as typical forms.

Senecio Vulgaris (Groundsel) This little annual, with drooping heads and yellow flowers, is very common in some gardens. The stem is from six to fifteen inches, often branched from the base, and succulent; the leaves are cut and irregularly coarsely toothed. Continual hoeing is probably the only effective cure for this prolific garden pest.

Ambrosia artemisiifolia (Ragweed). This is a common weed in some parts, and is often complained against. It bears two kinds of flowers on the same plant; the upper are staminate and the lower pistillate. It is on the lower parts of the branches you find the seeds. The stem is slender and much branched, and the leaves are much cut.



Ambrosia Artemisiifolia (Ragweed).

Being an annual, and only a portion of the flowers bearing seeds, it should not be difficult to suppress, and certainly must give way to thorough cultivation and rotation of crops, by which the plants are not permitted to flower.

Maruta cotula (May-weed, Stinking Chamomile). An annual very common along the roadsides; stems mostly erect, leafy and bushily branched; leaves very much cut; discs of the flowers yellow, surrounded by white rays. This stinking weed, though common in back yards, lanes, etc., never proves of much trouble in the fields.

Sonchus oleraceus (Sow-thistle). This is the annual form of sow thistle, and while in some places very common, it is not difficult to overcome. It has flowers and lower leaves not unlike those of the dandelion, but the plant is 1 to 4 feet high.

Sonchus arvensis (Corn Sow-thistle). This species is much like the other, but very bristly along the flower stems and around it on the underside; is perennial, with a creeping root stock and larger heads of bright yellow flowers. Owing to its habits of growth it requires more cultivation to get rid of this than the former, and vigilance should be exercised to keep it subdued, and if possible out of the fields.

Erechtthys hieracifolia (Fireweed). This plant has received its name on account of its appearing to spring up where woods have been cleared and ground burned over. It is rank and coarse, often hairy, and 1-4 feet high, with a stout stem, bearing many flowers of a dull white color. Cutting this annual down will soon overcome it. It is seldom seen in well cultivated fields, but seems to grow on newly cleared places or neglected spots.

Growing Rape.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I would like to know something about growing rape for sheep feed in the fall. When would be the best time to sow it? Would it do to plough the land twice in the spring and sow it by hand broadcast? As I have no turnip drill, please give full instructions about it and you will much oblige me, and it may be some other farmers.

DANIEL HALLIDAY.

Dunmore, Ont.

ANSWER BY JOHN I. HOHSON, MOSBORO', ONT.

In replying to the letter of inquiry forwarded me, asking information as to the best mode of cultivating a rape crop, time of sowing, etc., I perhaps cannot do better than give my own practice, and which I may say is similar to that followed by the most successful growers in this section, where it has been largely grown for many years.

The preparation of the land is in every way the same as for turnips. Plough deeply in the fall, and if the land is stiff it is often a benefit to rib it, presenting in that way a much greater surface to the action of the frost. The work done the following spring will depend on the object in view. If, as is often the case, the growing of this crop is made to take the place of a summer fallow, and it is a very important consideration to clear the land of foul weeds, then the work should be done with that end in view, and ought to be thorough and complete. In no case should the land be ploughed less than twice (that is, besides the fall ploughing) and as much surface working done as may be required to make it as clean as possible before sowing.

The sowing may be done any time from the 20th of June to the middle of July—about the last week of June appears to be about the right time if the weather is favorable. If the seed is fresh and good three quarters of a pound per acre is sufficient, when sown in thirty-inch drills. It is always well to sow in drills either raised or on the level. The plan which I almost invariably follow is to sow on raised drills; in this way, when the work has been well done, the horse-hoe can be set so as to cut close up to the edge of the plants and then hand-hoeing, if considered necessary, is but a light job. The hand-hoeing is only necessary for the purpose of striking out weeds or thistles, not for thinning, as with turnips.

I would just say here, that keeping a rape crop clean in this way is not nearly so serious a matter as some farmers who have not tried it may think. A great deal depends on just doing the work at the right time, and the right time is when the land is dry and before the little rootlets have gone deeply down. Cut off a thistle that is deeply rooted and it has to be done again. Is it not one of the great mistakes which some farmers fall into, that they are always two or three days behind their work? Another advantage in sowing in drills is, that the sheep do not tramp on and waste as much as when sown broadcast; they prefer walking along the drills and nibbling away at each side. There is, however, one objection to raised drills, and it is a pretty strong one: unless they are well worked down with the horse-hoe, sheep or lambs, when they become fat, are very apt to get on their backs and not be able to get up again without help. It is always well to look over the field once or twice a day. It pays.

The question of manuring for the crop will depend on the conditions of the land on the other circumstances, of which every farmer must judge for himself. Good crops can be grown on soil comparatively poor if other conditions are favorable. A well prepared seed-bed, with a top dressing of from one to two hundred pounds of plaster, and three hundred pounds of salt, will often give double the quantity, and even more than would be on the same land if carelessly put in, without top-dressing. The value of plaster is accounted for from the fact that the chemical composition of the plant shows that there is a large percentage of sulphur in the ash. Sulphur is an ingredient in plaster, plaster being composed of sulphuric acid and lime. The amount of sulphuric acid in rape is more than in clover, which explains why such results so marked are often obtained from the use of plaster.

Then, again, it is a plant that draws much of its food from the air, and what it abstracts from the atmosphere tends to make it a vigorous plant; and so enables it to draw well upon the sources of food in the soil. It will thus be seen from the nature of the plant and from its value as a fall-feed for both cattle and

sheep, that under certain systems of farming it can be grown to great advantage.

In feeding it, great care should be exercised when putting on either cattle or sheep for the first time. It is well to take them off grass when they are quite full, they will then eat but little. Gorging on an empty stomach is when the mischief is done. My own practice is to always try and have a pasture field adjoining for the stock to go into; then when once put on rape, to leave them there, never taking them out unless the weather becomes too cold or wet, requiring them to be housed at night; in that case am very careful that their stomachs are full before they are turned on in the morning. There is much greater risk in taking stock off than in leaving them on, even when the weather is a little rough, excepting when managed very carefully. Late sown or young rape is always dangerous stuff.

To sum up—the advantages of growing this crop are, that perhaps better than any other it takes the place of a summer fallow—better than the turnip or other root crops, for the reason that there are two or three weeks longer to clean the land, and at a time when cultivation for that purpose is of most value. With the exception of clover it draws more from the air than any other forage crop grown. And without any exception it puts on flesh more rapidly than any other food which is grown, is eaten directly in the field, and as it comes in when the pastures are usually getting scanty, it renders good service between the seasons of summer and winter feeding; even the strong, thick stalks on a well grown crop form a rich, nutritious food, which can be often used for a good while after the early snow falls.

The Dairy.

Cheese Inspectors.

Four cheese inspectors have been appointed by the executive committee of the Western Dairyman's Association for the present year. These are Mr. H. O. Forster, Tiverton; Mr. James E. Hopkins, Brownsville; Mr. E. Hunter, Woodstock, and Mr. John R. Isaac, London. The inspection of the milk at each factory is to form a prominent feature of the work. The Eastern Dairyman's Association have followed this practice for several years to a certain extent, and purposes increasing its efforts in this direction.

The executive have also decided to require each factory to pay \$5 a year toward the funds of the Association, and those factories the output of which is more than fifty tons per annum, are expected to contribute at the rate of ten cents per ton. Only the factories so contributing will receive the aid of the inspectors.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Green Fodder in Summer.

BY JAMES CHEESMAN, TORONTO.

After the experience of the summer of 1887, few stockmen will require much persuasion to plant freely an area of green food sufficient to meet their requirements this year. It is not easy to exceed the limit, for whatever surplus may exist is easily disposed of as hay, or may be used as a substitute for grass, and the grass saved can be converted into hay.

For dairy purposes, preference should be given to such plants as will yield the largest amount of nitrogenous compounds. Plants answering to this description are the common clovers, the French clovers, Lucerne and saintfoin, peas and oats, vetches or tares. It is not the intention of this article to discuss the selection of fields or their preparation prior to spring time. It is assumed that the writer is addressing men who are familiar with the general principles of their occupation.

On the best managed Canadian farms, the favorite practice is the eight course rotation, which favors an

alternate pasture of three years ley, involving the use of three-eighths of the cultivable farm area for grasses and clovers. On farms where this practice is in vogue, a few words may be admissible to indicate the treatment necessary to secure the best results from clover lands. In however favorable a sward, too much care can hardly be exercised during the earlier period of growth. Infancy and early life, whether in plants or animals, require the tenderest consideration of the husbandman. Clover lands should be topdressed with a manure spreader in early spring, as liberally as the resources of the farm can afford. If the manure has been treated with land plaster, by daily sprinkling over the litter, all the better for the field crop which receives the dressing. Clover thrives best in limestone soils, and plaster is always a welcome food, but much more so when it has done duty as a stable purifier. As the ammonia and other soluble salts are washed out of barnyard manure into the soil, the tender rootlets gather up their food early, and with the aid of such a start, present their new season's leaves to the action of the sun light and air, and from thence pursue their own function of growth and development till ready for a toothsome bite.

The practice of turning out stock on clover or grass lands too early cannot be too strongly condemned. On many farms the short supply of winter food is a strong temptation to prejudice the wellbeing of clover fields by seeking a full subsistence for stock at too early a date, after the first few bites, the ground is once more bare, thus depriving the plants of their chief organs, the leaves, which collect nitrogen from the atmosphere for transformation into food. It is better to keep stock off the clover field till it attains a height of at least four or five inches. One often hears, even in high places where special attention is supposed to have been given to these plants, "that clovers soon die, or that this or that plant is not permanent." As already stated, this argument is not concerned with permanent pasture, but it is incumbent to point out here, that if plants miss or fail to appear the second or third year in a fairly good soil, the reason is that the occupier of the farm has most likely failed in some one or more important duty connected with its cultivation.

Having briefly outlined the general principles of careful husbandry with clover fields already established, let us now consider what may be done on land available for a green fodder crop, such as a mixture of peas and oats, tares or lucerne. Lucerne, as the French call it, or alfalfa as it is called in Mexico and California by its Spanish name, is one and the same plant. It is old, and was well known in the days of the old Greeks and away back in early Roman history, as a plant of high nutritive value. This plant does well in a good, free loam or light soil, with free, deep subsoils. On the limestone soils of Northern France, it forms the backbone of what the late Mr. H. M. Jenkins called "arable land dairying." In the southern counties of England, within one hour's ride of my native city—the great metropolis—on the chalk downs, where sheep bleat, and Shorthorns and Sussex cattle graze, it may be seen, in all its grand luxuriance; furnishing inexhaustible supplies for all kinds of stock. In Canada it has already found favor with dairymen and sheep breeders. The fact that it has outlived clover on American soils specially exposed to drought, ought to commend it to such of our farmers who suffer most from exposure. I favor liberal seeding, and prefer broadcasting to drilling, not less than fifteen pounds per acre, harrowed for a good seed bed. According to soil, season and locality, it may be mown in from seventy-five to ninety days, and should always

be cut when it is forming its flower. It is at this stage that the stems contain their maximum of food, but if allowed to flower, the stems form woody fibre rapidly, which greatly diminishes their feeding value. Lucerne is richer in nitrogen than any other clover, and will furnish, bulk for bulk, a greater amount of milk making food.

Peas and oats may be sown almost as early as any crop, and had better be drilled in at the rate of 18 gallons of peas to 12 gallons of oats per acre. Such a seeding will smother the ground and effectually prevent any growth of weeds. Both plants are rich in nitrogen, but what peas lack in oil and starch, is made up by the oats, which form the Scotchman's staple food. Although some feeders cut as soon as the crop is in blossom, it is better to defer cutting till the seed is in milk, when the plants are in a much higher state of maturity. I have seen some severe cases of scours result from feeding this crop when cut in blossom. It is a heavy cropper, and will yield from ten to sixteen tons according to soil, climate and treatment. The fine combination of albumenoids, starch, oil and gum in this crop, render it one of the most useful and economical. Its variety of flavor gives it a slight advantage over lucerne as a food.

Vetches, or tares, are not grown in Canada as extensively as they should be. With a food value similar to the pea, it has a slightly different flavor, and is much relished by dairy cows. It may be asked, why grow such a variety of food when we can have the same result from peas. The reason why permanent pasture grasses are so valuable as grazing feed, is mainly because of their variety, not only of chemical composition, but in their action on the stomach. Whatever varies scent and flavor in food, is a physiological gain, because it promotes the enjoyment of feeding, and so increases the activity of the digestive organs and the secretion of a fuller and healthier flow of digestive ferments, on which the efficiency of digestion and assimilation depend. The Editor will remember me showing him a sample of Scotch tares recently received from Scotland through a Montreal friend. They are fully two and a half times the size of the Canadian and English seed of the same plant. Tares may be cut three to five times in a season, and will crop from two to three tons per acre at a cutting. No reliance can be placed on pasture after June 15th to July 15th, without the aid of green crops.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Outlook of the Creamery Business.

BY J. W. ROBERTSON, PROFESSOR OF DAIRYING, ONTARIO AGRICULTURAL COLLEGE, GUELPH.

A few men have encouraged the habit of looking at the bright side of everything into a fixed quality in their character. That is admirable. Others, without looking into the merits or demerits, the strength or weakness, the helpfulness or harmfulness, the benefits or disadvantages of any subject or business, are forever pouring out compliments and congratulations. That is unfortunate.

To the creamerymen, who are satisfied with last season's business, let me offer a few suggestions with a view to the making of their appreciation of the business fully justifiable by an examination of its real and possible value to the farmers of Ontario. I purpose also to respond to the croakings of the few pessimists who are continually vexing the exposed surface of their souls by reason of the fear which they have talked themselves into believing as real, viz., that the bottom is just about to fall out of the dairy and especially the creamery business. That state of mind is deplorable—for them.

By examining the nature of last season's operations future failure may be guarded against by change and

improvement wherever weakness of management or arrangement has been discovered.

There is need for more thoughtful and honest enthusiasm on the part of those engaged in extending the industry. There is cause and just ground for the feeling in the consideration of what a single co-operative creamery is worth to a locality which gives it a hearty support.

The average price of creamery butter throughout the Province is at least six cents per pound higher than the average price of dairy butter. The average yield of butter per cow during the creamery season is under 125 lbs. Thus 1,000 cows in any locality—which one creamery could very well serve—would yield at even the present lamentably low rate per head about 125,000 lbs. of butter per season. That quantity of average creamery butter would bring into the locality \$7,500 more money or value than an equal quantity of average dairy butter. By allowing an equal increase of value for the butter product of every 1,000 cows in the whole butter making area of the Province, a fair estimate may be formed of the possible value of the creamery industry to the farmers of Ontario in only one of its aspects.

Besides the milk cows whose milk is wholly used in calf raising, there are some 620,000 cows milked in this Province. A large quantity of milk is used in cheese-making, and table consumption requires many millions of gallons. Still there are about 900,000,000 lbs. of milk made into 32,000,000 lbs. of butter in Ontario. Not more than 50,000,000 lbs. of milk are used by the creameries. The outlook therefore offers large opportunity for the usefulness of creameries.

Their value can be increased and extended even in districts already occupied, by securing the undeveloped milk supply of these sections. Observe (1) that not more than half the cows in many such neighborhoods contribute milk; (2) that twice as much milk and butter might be got from the same number of cows; (3) that twice as many cows might be kept per acre on the same area. This eightfold increase can be realized in time by agitation and education that will reach every farmer. Nothing should be left undone that will induce the farmers to think, plan, prepare, select, breed, feed and care for cows for the special and particular purpose of dairying.

They may be attracted towards the creamery by many means. Let me specify two of them.

1. By fostering direct market contact and consequent market education of dairy butter makers they will be led to appreciate the creamery's provisions.

2. By proving the practicability and advantage of raising good calves economically on skim-milk stock-raisers will be drawn to support it.

Every creamery owner and creamery patron can increase his own profits very much, while substantially furthering the interests of the industry by drawing the attention of his neighbors to these facts through his own practice.

Some of the needs of the creamery business already hinted at may be presented as

(1) The need for a reduction in the cost of producing cream on the farm.

This need can be met and satisfied by the selection of suitable and profitable dairy cows. It pays best to have cows that give milk for not less than ten months every year. Two hundred and fifty pounds of butter per cow for the season should be the lowest standard for which the creamery dairyman should aim.

Fodder corn seems to be an indispensable crop for the economical production of milk. The best results as to feeding value per acre will be secured from mammoth Southern sweet corn, B. & W. corn, Red cob Dent corn, or some other such variety of large growth in leaf and stalk. The corn should be planted in rows at least three and a half feet apart, or in hills, and not sown broadcast. Abundance of sunlight and air are necessary to the attainment of full feeding value. When planted in drills let them always run nearly north and south. The earlier it is planted the better. One freezing in the autumn does the fodder more harm than three freezings in the spring. Before cutting for fall and winter feed the plants should have matured nearly as far as the glazing stage, or to that condition when the ears or nubbins are almost fit for roasting or boiling. It is beyond the scope of this paper to discuss fully the best feeds and how to use them; but mention must be made of the value of bran to the creamery dairyman. It will pay to feed a small quantity of dry bran twice a day all summer. Then, intelligent care of the cows and kind treatment adapted to their work of milk-making, is essential to

further success in the endeavor to reduce the cost of production.

(2). Another of the creamery's needs is that of a better market for its products. To gain this it becomes us to develop the home market of our own towns and cities. Scores of families are willing to pay remunerative prices for a regular supply of fancy mild butter. A home market would be one more permanently profitable for the butter-maker than a foreign one. The finest quality in butter will always command a fancy price, and will create for itself an unlimited consumptive demand.

Let me now in sequence describe a few of the difficulties that stand in the way of the prosperity and progress of the creamery business:

(1). First stands a lack of interest of an intelligent quality in their own business by those who manage factories and supply cream.

(2). There is next the still cherished doubt (it needs to be nursed by the green whey of prejudice to keep it alive) as to whether stock-raising can be followed with the best results, when prosecuted in connection with the business of furnishing cream.

(3). There yet lingers in some farmers' minds a fear that the business will not develop into profitable permanency.

(4). A lurking suspicion has existed that advocates of the creamery system had some ulterior purpose to serve in the way of patent rights or contrivances.

Happily these difficulties are being quickly overcome or dispelled by the experience of years. A thoughtful contemplation of the outlook, for the creamery business reveals the existence of certain dangers which had better be plainly named that they may be guarded against. Disaster cannot be otherwise averted.

1. There is grave danger in the careless neglect of some patrons to properly provide pure water, wholesome feed and free access to salt for milking cows.

2. The danger from the want of knowledge of how to care for milk in the preparation of cream for creameries is serious. Every butter-maker should furnish each patron with a card of instructions.

3. There is danger to the character and consequently to the reputation of creamery butter from the aim of too many makers being merely to produce an article that will pass instead of doing their level best to turn out an article that will fully please both the buyer and the consumer.

4. There is danger from a season of severe drought finding the patrons unprepared with a suitable soiling crop by which to keep up the flow of milk.

5. A year of disappointingly low prices will prove very damaging, unless all concerned take heed in time and adopt means such as those suggested for reducing the cost of production. Safety as well as profit lies in putting the cost of a pound of butter down to the lowest possible point.

In concluding this short analysis of the outlook, let me point out a few ways and means that may be followed and used to promote the interests and extend the business of creameries.

1. A butter-maker's instructor and creamery inspector should again be appointed.

2. Bulletins will be issued from the dairy department of the Ontario Agricultural College, Guelph, from time to time during the summer.

3. The home markets of Ontario should be appropriated by creamery men. The market competition with dairy butter-makers would benefit the creameries.

4. Some adequate cold storage convenience should be provided for all butter intended to be held over.

5. Winter dairying should be encouraged.

6. A meeting of the patrons of every creamery should be held at least once a year, to compare notes as to the amount of money per cow realized by the several patrons. The methods of the most successful would thus become known to all with much benefit to every one.

7. Meetings under the auspices of the creamery association and attended by a competent speaker might be held in unoccupied sections, seeking full and reliable information concerning the business.

"I like your journal very much. The information it gives upon all subjects relating to agriculture is certainly very valuable to the farmer."—R. Wight, Paris, Ont.

"I would not like to be without your valuable paper. I am convinced you are doing a grand work for Canada in banishing the 'scrub' and inspiring stockmen and farmers with the laudable ambition that ought to characterize their noble profession."—Leonard Gaetz, Red Deer Crossing, N. W. T.

The Most Important Factors in Making the Butter Industry Profitable.

BY V. E. FULLER, HAMILTON.

(Continued from March.)

DRY FODDER CORN

is not used for milk production to the extent that it should be. When cut and steamed and fed with bran and shorts, it makes a most excellent and cheap food, and the knowledge of its merits should be more thoroughly disseminated throughout the country. When it cannot be steamed, it run through a cutting box and dampened it has almost equally beneficial results. After an experience of three years in its use, I am convinced that one of the elements that will go far towards solving the question of the production of a cheaper milk on our farm is properly cured

ENSILAGE.

It will allow, if properly stored, cured and fed, the keeping of three cows to every one now kept on the farm. I do not refer to ensilage when the water has been allowed to flow into it. There is no necessity for expensive pits in which to store the ensilage. It requires to be kept free from water and air. Mr. Hoard, of Fort Atkinson, Wis., in a recent conversation on the subject of what was the cause of the great strides Wisconsin had made in the past two or three years in butter-making, attributed it to the increased knowledge in the production and curing, and the merits and value of ensilage as a fodder to dairy cows, as also the use of cows especially adapted to butter-making. As a paper is to be read on the subject of ensilage I shall not dwell on this subject longer, but would merely say, after giving it a most thorough test of three years, we would not be without it at Oaklands, and I am convinced that it is the most important factors in making the butter industry profitable.

It is with some diffidence that I approach the last requisite in profitable butter making—namely, a cow especially adapted to the economic production of milk which can be most profitably converted into butter. This is the first paper I think in which I have ever touched upon this subject, and I have refrained from so doing because I was aware that self motives would be attributed to me, but I could not close this subject without doing so, and do justice to it. To such as would attribute selfish motives to me I would say that all breeds of cattle are open to me to choose from in conducting our dairy business at Oaklands, and as it is carried on not as a "philanthropic society," but as a business enterprise, were I not convinced that in Jerseys we have the cow best adapted to butter-making, we would purchase what we considered were better. When it is further borne in mind that I could have disposed of my herd for at least \$100,000, credit must be given me of a firm conviction that for cream and butter the Jersey is to our minds the most profitable cow to use.

Mr. Fuller again referred to the enormous strides that Wisconsin had made in butter production, and stated that after careful enquiry he found that one of the most important factors producing this result was owing to the introduction of Jersey and Guernsey blood, and the displacement of the native cow by the progeny of thoroughbred Jersey and Guernsey bulls. That cases were constantly being reported from the Farmers' Institutes of people who had increased their production of butter per year from 150 and 200 lbs. a cow to 250, 300 and 325 lbs. per cow per annum, and that the statement was constantly made that the cost of the maintenance of these animals did not exceed the maintenance of the common cow.

He said that it was a great fallacy to state that the Jersey cow was not a good milker, that while she did not give so large a flow of milk when freshly calved, her continuity or habitude of holding to her milk was well known wherever she had been handled, and that the cross showed this characteristic. He stated that from 25 to 30 lbs. of milk are, as a rule, required in this country from the ordinary cow for the production of one pound of butter, whereas in the Oaklands herd 15 to 16 lbs. of mixed milk of a whole herd have often produced one pound of butter on winter feed; and that the reports made at the Farmer Institutes and other meetings in Wisconsin in the discussion of dairy matters showed that whole herds of three-quarters and half-bred Jerseys were producing a pound of butter from 17 to 20 lbs. of milk. He advised strongly the purchase of thoroughbred bulls of either of these strains for the production of butter, claiming experience in the United States not only in

Wisconsin but in the East, showed that where a farmer had used grade Jerseys or grade Guernseys, butter-making had become a profitable industry; and cited cases where such had been done.

I reiterate what I conceive to be the most important factors in making the butter industry profitable.

1. A better knowledge of the art of butter-making and marketing, in all its branches; and in this connection I conceive the creamery to be the best educator.

2. An increased production of milk per cow obtained by a proper regard to the feeding, caring for and fixing in the cow a habitude to a prolonged flow of milk, and as an encouragement to this end, winter dairying in creameries.

3. More economic feeding of our milch cows. An important factor is the use of more corn fodder and ensilage.

4. The use of grade cows got by a pure-bred sire of a breed of cattle especially adapted to butter-making; or of our native cows who by testing have been shown to be profitable butter-makers, and from whom not more than 20 lbs. of milk is required to a pound of butter, and as the Jerseys and Guernseys have as a race proven themselves profitable butter cows, the use of grades of these breeds.

More Light on Ensilage.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—We are much pleased with the March number, notably so with Mr. Cheesman's article on silos and ensilage, but there are minor details yet to fill in. First, how is the ensilage to be got up sixteen feet without some costly appliances in a cut or uncut state? Some speak of cutting it on top of buildings. Next, about the roof—will a common roof on such a narrow building be a hindrance to filling? Lastly, will marsh or fine hay of any kind with any convenient weight upon it do instead of earth? We cannot brook the idea of putting a foot of earth on a mow of feed sixteen feet high. I trust there are a number of practical men who can clear up all these little wrinkles. I am writing to get information that will be helpful to men of small means.

OXFORD.

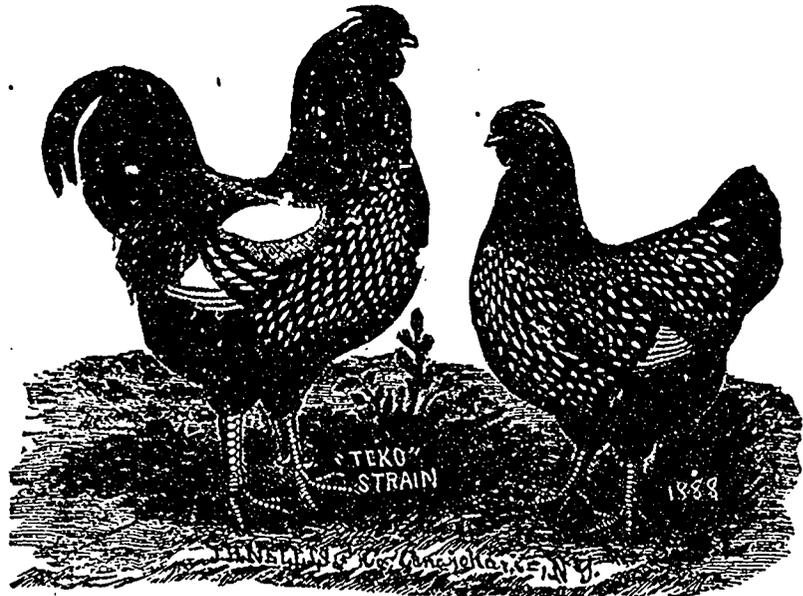
Poultry.

Silver Laced Wyandottes.

Wyandottes are pretty generally acknowledged by all who have bred them to be one of the best general purpose breeds known. No other breed perhaps ever came into favor more rapidly. Their admirers claim that they are not simply the coming fowl, but that they have come, and come to stay. Of the varieties of Wyandottes, none is more beautiful than the silver-laced, a description of which we append:

"They have clean, orange-colored legs and yellow skin; heavy breasts and plump thighs. They are hardy, easily grown, and reach the broiler size at an early age. It is claimed that they mature fully three weeks earlier than Plymouth Rocks, and pullets lay at least a month sooner. They are very gentle pets, and seldom fly over a four-foot fence. They cannot but suit the fancier, for much skill is required to improve their markings, which in well-bred specimens is a beautiful combination of white and black. They are well adapted to the farmers' needs, as the hens make good sitters and careful mothers, and are not so persistently broody but that they cannot be easily broken up, and as winter layers they are excellent—in fact, as all the year layers they surprise those who breed them at the amount of eggs they produce. Their general appearance and markings can be gathered from the illustration. They have bay eyes, bright red wattles and earlobes, and low, close-fitting rose combs. Cocks weigh about 8½ pounds; hens, 6½; cockerels, 7½; and pullets, 5½."

The Messrs. J. H. Nellis & Co., Canajoharie, N. Y., a pair of whose beautiful birds are represented in the sketch on this page, write us that although they have grown many hundreds, they have never had one case of gapes in the poultry yard. They breed nothing else but silver-laced Wyandottes, grow many hundreds every year, and from the general excellence



SILVER-LACED WYANDOTTES.

of their birds, must give them careful attention. In such a case it would be strange indeed if success did not follow, for where energy and money are concentrated to bring about best results, and where the ability arising from the possession of numbers enables the breeder to mate judiciously, it would be anomalous to have any other result arise.

This firm have also issued a circular, minutely describing the markings of choice Wyandottes, and giving many pointers on how to mate and breed. They also describe their buildings and give practical information as to how to keep poultry healthy and raise them with profit, which will be forwarded without charge to any desiring it.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Essex Poultry Farm, Managed as We Understand It.

BY ARTHUR HARRINGTON, KINGSVILLE, ONT.

(Continued from February.)

THE CHOICE OF A BREED.

Having determined upon a suitable place, the quality and kind of stock naturally and rightly demands attention next in order. We may have occasion to speak strongly on this point, but we are writing for the benefit of the novice, and must say exactly what we think.

In beginning anything it is necessary to commence right, if success is the desired end. Many a wreck has been occasioned by a few wrong moves at this vital time, and their shattered hulks sadly remind us of the need of watchfulness. Begin right, then, in your present enterprise, and send a ray of light far down the pathway leading to prosperity. Upon your selection of stock depends to a great extent the realization of your hopes. It is suicidal to err here. There are breeds and there are strains. Most people are well acquainted with breeds, but fail to realize that the strain is of far more importance than the breed. Place two birds of different strains but of the same breed side by side, and possibly so far as extensive merit goes, but a very slight difference would be noticed; but there is hidden in one of them the power to lay a dozen eggs more per month than the other, or the ability to mature quicker, or throw a much larger per centage of standard birds, and in many other ways fully bearing out the truth of our assertion. Choose, then, with judgment. If you want

to go more particularly into show stock, of course you require birds that will give good results in this direction, but nine-tenths of the poulterers in our land today make this branch of the business secondary, and require something more than merely external ability in their stock, and this is why our justly popular Plymouth Rock retains its hold in the public estimation. As a breed it combines utility and beauty to a high degree; while there are strains almost phenomenal in intrinsic merit.

We several years ago selected a particular strain of this breed as good enough for us, and after experimenting, reading and comparing notes with some of the most famous poulterers in New England often since, have never felt that a change was necessary—a bird that feathers just fast enough, is plump when killed at any age, is perfectly hardy, is eagerly sought after by marketmen, will produce eggs when they are wanted, viz., from December to May, will rival the Leghorn in productiveness, lay a brown egg of good size, is withal pleasing to the eye, suits us well enough, and we shall do our best to raise five thousand of them this present season. A worthy rival has a large job ahead of it, and we think many days will come and go before a successor shall be appointed to supersede this noble fowl in the practical American mind.

(To be continued.)

Condensed Report of the American Poultry Association.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

The thirteenth annual meeting of the American Poultry Association was held in the Denison Hotel in the city of Indianapolis, Indiana, at 2 p.m. on the 23d of January, 1888, the president, Philander Williams, in the chair.

He stated the object of the meeting was the revising of the American standard of excellence.

To give the proceedings in full would take up too much of your valuable space. We will, therefore, only notice a few of the leading features of most interest to your readers.

After the transaction of such other business as should properly come before the convention, the secretary-treasurer, Mr. Walter Elliott, then submitted his report, showing that his receipts for the year were \$300.48; disbursements, \$557.69; cash on hand, \$242.79.

On motion of Mr. Orr it was ordered that the editing committee classify the Standard in sections as follows, including each variety under the proper section: 1. American; 2. Asiatics; 3. Mediterranean; 4. Polish; 5. Hamburgs; 6. French; 7. English;

8. Game and Game Bantam; 9. Bantam other than Game; 10. Turkeys; 11. Ducks; 12. Geese; 13. Miscellaneous.

Mr. Budeock moved to amend by adopting the following classification: 1. American; 2. Asiatics; 3. Mediterranean; 4. Polish; 5. Hamburgs; 6. French; 7. Game and Game Bantam; 8. Bantam any other than Game; 9. Miscellaneous; 10. Turkeys; 11. Ducks; 12. Geese; which amendment was carried, and the motion as amended adopted.

On motion of Mr. Felch, it was resolved that sweepstake prize birds not suffering from weight clauses competing with other classes, be handicapped one and one-half points.

Mr. S. M. Williams, of Indianapolis, moved that White Plymouth Rocks be admitted, and that the Standard be the same as Standard Plymouth Rocks except in the description of the color of the plumage, which shall be "white in every part." Which motion was adopted.

On motion of Mr. Scheel it was ordered that the Standard for White Wyandottes be the same as Golden Wyandottes with the exception of the description of color, which shall be "white in every part of the plumage." Which motion prevailed.

Mr. Orr moved that the Standard of White Javas be the same as Black Javas except in the matter of color, which shall be white, and that the disqualifications be the same, except that feathers other than white or yellowish white, and legs other than willow be a disqualification. Which motion was adopted.

Mr. Conger moved that the Standard for Silver Laced Wyandottes and Golden Laced Wyandottes be the same, including weights and scale of points, except in the matter of color. Adopted.

Mr. Mortimer offered a resolution tendering the thanks of the Association to the President for the impartial manner in which he had discharged the duties of his office, and congratulating the Association for having re-elected him for another year. The resolution was seconded by Mr. Scheel and unanimously adopted.

Aberfoyle, Ont.

W. B. COCKBURN.

The Apiary.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

April Work and Other Matters

BY ALLEN PRINGLE, SELBY, ONT.

The bees are still in winter quarters, or ought to be in this climate. They are wintered for the most part in Canada in cellars and on the summer stands, more or less protected. A few are buried and a few stowed away in lofts, granaries, etc. A quarter of a century ago when bee culture was still in its primitive stages in this country, and when the "old box hive," as it is now called, was the standard hive in use, the bees were mostly wintered outside on their summer stands without any extra protection. And they used to winter in that rough way very well, often coming through the rigors of the severest Canadian winter in good condition. The question how this is to be accounted for is often asked. And the question is a pertinent one in view of the fact that we have at present such difficulty in getting our bees successfully through the winter and spring with all of our increased knowledge and improved hives and appliances. I think the seeming anomaly may be explained on the following grounds. In the first place the bees of those days in the old-fashioned hives almost always had first class food for winter, and abundance of it, as there was no extracting done then, and the honey gathered in the early summer and thoroughly ripened and capped over remained in the hive for winter food—the surplus taken from them being mostly from caps on top after the hive had been well filled. A further cause of the successful wintering of their bees by our forefathers with their limited apiarian knowledge may be found in the fact that only the strongest colonies were allowed to face the music of winter—the weaker ones being all "taken up" in the

fall, *i. e.* "brimstoned," and that means digging a hole, putting sulphur in it, lighting it, setting the hive over it, and smothering the industrious little creatures to death, and then taking possession of their stores. A still further cause would no doubt be the peculiar construction and arrangement of the combs by the bees, which, in many cases, instead of running parallel to each other as we now force them to do by means of our movable frames, converged from the inner walls of the hive towards the centre, thus materially favoring compact clustering and facility in reaching the food in the cold weather. A final factor in the problem would, I think, be the natural protection afforded them by the forests, which have now mostly disappeared, leaving the bees which are outside without artificial protection, exposed to the piercing winds of winter.

If these are the true causes of the phenomenal success of old time wintering under what is thought such adverse conditions, the apiarist of to-day may learn a lesson from each and every one of them. First, let him put a little check on the extractor and leave the bees plenty of honey, and of the best quality for winter. Double up all weak colonies, and try to carry none but strong ones through. Meet the requisites of compact clustering and convenient food by spreading the frames a half inch or so in the fall and giving freedom and space to the bees above the frames in winter. When wintered outside protect them by means of sawdust or chaff packing or otherwise. Under such advantageous circumstances as surround the modern apiarist, he certainly ought to be able to carry his bees through the winter and spring more successfully than his grandfather did.

The most important part of the work among the bees for April consists in looking after the stores to see that they have plenty of food, attending to the colonies that show signs of bee-diarrhœa, and setting out of winter quarters. As brooding has now commenced there will be an increased consumption of food, and those short of stores should be amply supplied. If there is honey on hand saved over in frames (as there ought to be) supply those in need with these. If not, make a somewhat stiff candy of extracted honey and number one granulated sugar, and place in cakes over the frames under the quilts where the bees can reach it. The candy may be made by warming the honey and mixing the sugar, leaving it for several hours in a warm place till the honey and sugar get thoroughly incorporated. It must of course be of such consistency that it will not melt in the degree of heat under the quilt and above the bees—say 60° to 80° Fah. Colonies showing signs of disease and restless, ought now to be carried out to the summer stands for cleansing flight. This ought to be done on a fine, warm, calm day, and they must be carried back to the cellar at night, provided the time has not come for leaving them out. This brings us to the question of

TIME TO SET BEES OUT.

When bees ought to be put out of winter quarters on to their summer stands must depend upon the season and some other conditions. As a rule it is not well to put them out until the weather becomes warm and somewhat settled and natural pollen appears. This time will vary according to season and locality, all the way from about the middle of April till the middle of May. The bee-keeper must use his own judgment in the matter, as no invariable rule can with safety be given. But there are certain principles which apply under all circumstances and conditions, in spring management, one of which is, that food in plenty is required for brooding; and another equally important

is, that a certain degree of heat is always required. Both are imperatively essential. We can supply both, and therein will largely depend our success in getting our bees through the spring in good condition for the harvest. More bees are lost in spring than winter. "Spring dwindling" is the dreaded Nemesis of the modern bee-keeper. But equipped with the modern knowledge of his art, he can meet and vanquish this enemy. What is spring dwindling? Most of us know by experience, more or less dear, what it is. It is the gradual, often rapid, dying off of the old bees in the spring faster than the young ones are brought forth to take their place. The obvious remedies are first, to prolong the lives of the old bees in the spring; and, secondly, to hasten the raising of young bees sufficiently to meet and fill the loss of the old ones. The question now is, how is this to be done? Conserve the life of the old bees by keeping them quiet; that is, so far as out door exercise is concerned. Let their energies be spent inside the hive rearing brood. When an old bee begins to forage in the fields in the spring it will very soon shuffle off its mortal coil. Simply do away with the necessity of this. Prevent it from spending itself in that way. How? By supplying it with plenty of food within the hive, so that it need not go out for it, and by supplying it with sufficient heat for brood-rearing. But some bees, like some bipeds, like to be fussing about whether there is any need for it or not. This can be remedied in case of the bees by leaving them in their winter quarters till they get well on with the brooding.

Upon referring to my apiarian record I find that in the spring of 1885 I commenced setting my bees out of cellar April 16th, and finished May 13th; while the fall record shows that the latest out did as well as those out first or later. That spring was backward, and those having plenty of stores for brooding, and remaining quiet, I left in till late, with quite satisfactory results. In 1886 I commenced setting out April 13th and finished May 2d—the first natural pollen appearing in the fields April 19th. In 1887 I commenced April 10th and finished same time as previous year, May 2d—the first pollen appearing on that date.

The reader will see from the above records that I am not in favor of rushing bees out in the spring the first warm day that comes. Some that are restless, or from other causes, will require to be put out before others. I commence with those requiring the change most, and keep on in that way till all are out. Every one must use his own eyes and judgment for himself in this matter as in others.

A NEW HIVE.

Messrs. Jones & Macpherson, of Beeton, Ont., are about to (or perhaps have done so already) agreeably surprise the bee fraternity (scientific) with a new invention for the production of comb honey. The main features of the new system of reversing and taking comb honey consists of a reversible queen-excluding honey-board and super reverser with spacer, which are fitted to and work upon the Jones "combination hive." Although I had not these fixtures in hand long enough last season to give them a thorough test, I am strongly impressed with their rare merits as compared with any of the existing systems of taking comb honey. Simple of construction, safely manipulated, apparently rain and wind proof, affording the bees no chance to glue the sections, the scientific comb-honey specialist will, I am inclined to think, cry *Eureka!* when he sees it. This is an age of progress in all directions, and apiculture is keeping well up to the front in Canada.

Horticultural.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Plum Culture.

BY E. D. SMITH, WINONA, ONT.

INSECTS, ETC.

The chief insect injurious to plums is the curculio, which, if left unmolested, frequently destroys the whole crop. The beetle that does the mischief is a small, rough, greyish, blackish insect, about a 1/4 of an inch long, with a black shining hump on the middle of each wing-case, with a short snout, which is used to make a small cut through the skin of the young fruit, into which an egg is deposited; then a crescent-shaped slit made beneath this, the object apparently being to leave the egg in a flap, which will shrivel more or less. The egg hatches in a few days and the resulting larva works its way to the centre of the plum, where it feeds upon the portion adjacent to the pit. Another insect, the plum gouger, works in a somewhat similar manner, only no crescent-shaped slit is made, and the larva, when hatched, proceeds to the interior of the pit and feeds upon the kernel. The same remedies are useful to eradicate the latter as to lessen the ravages of the former. Jarring the trees morning and evening from the time the blossoms begin to fall until three or four weeks have elapsed, catching the beetles in sheets stretched beneath, has proven eminently successful, where thoroughly carried out. But as this is a tedious and disagreeable task owing to the dew on the foliage in the early morning, very few have had the perseverance to follow it up. Many other remedies have been proposed, and which have merits, too, such as the annual destruction of all fallen fruit by pigs, and the destruction of the larva in the ground by hens and chickens. But it has now been demonstrated, I think, beyond cavil, that Paris green used with discretion is an effectual remedy for this great pest. The great objection to the use of this deadly poison being the uncertainty of its purity, I think there should be a severe penalty for selling an adulterated article. Four ounces of pure Paris green to forty gallons of water is quite sufficient to kill any insects that feed upon the foliage of fruit trees, as well as curculio, which feeds upon the young plums. More poison than this is injurious to the foliage. But we often get an article from the stores so adulterated that this amount does little or no good. I have put eight ounces to forty gallons of water after trying four and then six in vain, and it did no harm to the leaves of apple trees. Again I have destroyed the leaves entirely with four ounces, where put on too copiously, or possibly where not well mixed near the bottom of the barrel. The solution requires frequent stirring, as Paris green does not dissolve in the water, the mixture being not a chemical one, only mechanical. The trees should be sprayed as the blossoms begin to fall, and again each five or six days for about three weeks, or oftener in rainy weather.

There are various insects that feed upon the leaves, but the spraying for the curculio will make short work of these. The peach borer sometimes attacks the roots of plum trees, especially young trees in the nursery. These should be carefully examined when planted, and all borers removed with the knife.

The third cause of failure and the only one not yet well understood, is the black knot. The only cure—which is rather a preventative than a cure—is the careful watching and removal of all the swellings or knots as soon as seen, and the burning of the same. It is said this will keep it in subjection, though it has

failed to do so upon the common cherry trees, the knot spreading so fast as to destroy the tree in about four years after its first appearance, notwithstanding constant pruning and burning. Possibly, however, the knots are allowed to remain on too long, usually being only cut off once or twice a year.

VARIETIES.

The following are some of the best varieties of plums. It is a little difficult to state exactly the comparative time of ripening, as the crop as well as the localities has a great influence in this respect:

Among the earliest good plums is Prince's Yellow Gage, above the medium size, productive, vigorous, of very good quality, and never troubled with black knot, it is said. Ripening with the last is Imperial Gage, color greenish yellow, Prince's Yellow Gage being a golden yellow. Imperial Gage is exceedingly productive, vigorous, and altogether desirable. Both of these are quite hardy near the lakes. Green Gage is smaller in size, and tree a slower grower; color, yellowish green; quality best, and productive; not quite so hardy as Imperial Gage or Lombard. Yellow Egg, a very large, fine looking plum, not of best quality; productive, tree vigorous and among the hardiest. Washington, tree vigorous, and about as hardy as Lombard; fruit very large, yellow and good quality, not as regularly productive as others, in some localities a shy bearer in fact. McLaughlin, another large yellow plum, very vigorous and very productive, about as hardy as Lombard, though some say much hardier. All of the above ripen about last of August to first of September. A little later comes Jefferson, a moderate grower, productive, golden yellow, size large, one of the very best dessert plums, not quite as hardy as the others named. Ripening towards the last of September are some fine yellow plums—Reine Claude de Bavay or Bavay's Green Gage, of large size, very productive and vigorous, quality best; about as hardy as Jefferson. Coe's Golden Drop, a large plum of fine quality, productive, tree vigorous and about as hardy as Lombard. General Hand, an extra large yellow plum, of rather coarse quality, vigorous and fairly productive; about as hardy as the last. These are about the best green or yellow plums. Commencing again at the last of August with the blue and red plums, about the earliest is Bradshaw, reddish purple, of large size; tree vigorous and productive; not among the hardiest, but quite hardy enough for lake shore. Ripening about same time is Duane's Purple, very large plum, productive and of good quality; tree vigorous and about as hardy as Lombard, which ripens immediately after, and is the standard plum, being so very productive, of good size and quality; tree vigorous, and hardy enough for the plum belt around the lakes, but not hardy enough, it would seem, for the interior counties. Ripening at same time is Columbia, a very large purple plum, of magnificent appearance, a little more subject to rot, however, than most of the others; it is a heavy yielder, and about equal to Lombard for hardiness. Prince Inglebert, a large purple plum, ripens about this time also; tree very hardy and very productive, one of the most desirable varieties for the interior. Another plum ripening about this time is Smith's Orleans, a very large reddish purple plum, of good quality, a very heavy bearer; tree very vigorous but not very hardy. A little later we have Moore's Arctic, a moderate grower, but one of the very hardy varieties; plum is only medium size but of fine color, being a deep purple with a bloom on it like Moore's Early grape; it is a heavy cropper. German Prune, also ripens a little later still; a very large purple plum, an excellent shipper, very productive, about as hardy as Lombard. An-

other very fine plum, ripening about this time, is Pond's Seedling, color almost red when ripened in the sun; very large in size, of good quality, tree very vigorous and productive; about as hardy as the last. Victoria or Sharp's Emperor ripens also at this time, a large, light purple plum, very productive, very showy and popular; not as hardy as Lombard. Quackenboss, a large, coarse purple plum, said to be same as Glass' Seedling. If so, a shy bearer, but very hardy. Later still comes Felleberg or Italian Prune, very productive, of juicy, sweet, blue plums, of medium size; tree moderately vigorous and half hardy. A plum that should have been mentioned earlier is Red Magnum Bonum, a large plum of fair quality, productive, but noted chiefly for hardiness.

This is surely a sufficiently long list of choice plums from which to choose almost any quality desired. It will be noticed the following are accounted the hardiest plums—Moore's Arctic, Red Magnum Bonum, Prince Inglebert, and Glass' Seedling, with Yellow Egg close after them.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

A Few Words on Forest Tree Culture.

BY E. D. SMITH, WINONA, ONT.

Very much can be said in favor of planting forest trees, and much more in favor of properly conserving those already planted, and the importance of maintaining a considerable area in forest cannot be too strongly urged, both for climatic reasons and for profit as well. But we can scarcely expect the general average of landowners to devote land to this purpose except for the last reason, viz., profit. One would think the estimated product of land devoted to the growth of walnut trees would be a sufficient inducement to set the whole country planting them; but such is far from the facts. Probably the stories we hear are too big. I think they are myself. I cut some very large walnut trees last winter, one a mammoth, four feet across the stump, which brought \$125; another extra fine one brought \$90. Now an acre of such trees even forty feet apart, which is not closer than they would grow, would net about \$3,000, which is a lot of money, though far short of many estimates I have seen. But the trees were at least eighty years old, and on the very choicest deep wash land at the foot of the mountain, land worth anywhere in the older parts of Ontario \$100 per acre, and worth much more here. Now \$100 put out at interest at six to seven per cent. will double in about ten years, and in eighty years will amount to \$25,000, or eight times as much as the walnut trees. Of course the trees could be planted closer and thinned out gradually, these thinnings bringing in the aggregate possibly \$3,000 more. Still money put out at interest would pay much better. So you see we must plant on cheaper land. We must plant on land worth less than \$25 per acre; and here is what I wish to emphasize. Walnut trees will not thrive and produce satisfactory results on any but the very best soil, rich and deep and well drained. So this shuts us out from general planting. But there is still admirably adapted for walnut planting; almost all the face of the Niagara or Helderleigh escarpment is just the land for walnut, or most other trees for that matter. There are doubtless many thousands of acres of hillsides equally well suited. It is such places we must keep covered with forest, leaving our level land for the growth of crops for the present generation. But it would pay to plant strips of forests across our farms as windbreaks. The elm, a quick-growing tree, will be in demand for hubs at remunerative prices in the near future. Hickory grown in nursery

rows, and thinned out for various purposes, such as walkingsticks, which sell for fancy prices in the large cities, barrel hoops, and finally axe handles and buggy spokes, would prove remunerative. White ash grows quickly and will bring a fancy price in a few years. Wild cherry also grows quickly and brings a good price. Walnuts draw too much from the surface soil for a great distance on either side. It is useless to plant walnuts on land not thoroughly dry below, as the top roots will rot off in soil having a wet bottom. It is a mistake that walnut trees cannot be transplanted with safety. I had occasion to move over a hundred once, and every one grew, and grew well too. I cut off the top root about eight inches from the surface. Basswood or Linden is a valuable tree to plant if one intends keeping bees. Every windbreak should have two rows of evergreens; perhaps Norway spruce is best, they will grow upon very hard and poor soil, if it is only dry.

In conclusion, I would say, let us plant lots of trees along our lanes and roads, as windbreaks, and on land unsuited for general cropping, but think twice ere we devote good arable land to the business. More another time on this subject.

The Apple Prospect for 1888.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—After the past five years or more of our experience in apple growing, which is now only viewed as most discouraging to the orchardist on account of the depredations of the many insect enemies, and also the fungoid disease, commonly known as the apple scab, which not only destroys the fruit but has also a very injurious effect on the foliage, we have now some reason to expect better crops. The fine growth and rank, dark colored foliage indicate the departure of these destructive enemies, and it is hoped their absence may be a long one. The codlin moth remained with us and seemed more destructive than ever, almost destroying the crop in some localities. The mode of spraying with paris green for the successful combating of this pest, has been so often described as to scarcely need further mention. However, care must be exercised in purchasing to get the pure article. One fourth of a pound to forty gallons of water, kept well stirred while spraying, is the best and safest proportion of the mixture to apply. The best time to apply it is when the apples have grown to $\frac{1}{2}$ inch in size and yet stand erect, which allows the paris green to enter the blossom end of the apple, which soon after turns downward from increasing weight, shedding off the rains and allowing the poison to remain to destroy the succeeding broods of worms as they hatch from time to time during the summer. The tree should be well drenched from all sides to insure the reception of the poison into the blossom end of all the fruit. Some have made the mistake of spraying while in bloom, thus injuring or totally destroying the delicate organization of the blossom.

The above mode of destroying the codlin moth has been so often tried and has proved so successful in its application, that it may be fully relied on as a safe remedy if properly done and at the right time. Mr. E. D. Smith, of Winona, informs me of his most successful treatment of a few old trees in sod, some of which yielded as high as 10 to 13 barrels of clean, sound fruit, and also of a yield of one bushel per tree of clean, sound, large fruit in a young orchard, while another orchard of ten acres set at the same time on his farm, failed to give any good fruit—only small, wormy apples not worth taking in. We neglected to spray our own orchard, and although it set a fair crop and the soil was thoroughly cultivated, yet the crop was almost totally destroyed, not five barrels of fruit fit to barrel where we should have had fifty. We don't intend to be found napping this season or any other, as long as we own an apple orchard. We would say, let apple growers take courage, prune, spray and cultivate, and expect an old time apple crop.

J. TWEDDIE

Stoney Creek, Ont.

"We are well pleased with the JOURNAL. It beats all others for advertising."—A. C. Hallman & Co., New Dundee.

Jottings.

The Industrial Exhibition. The Toronto Industrial Exhibition will be held September 10th to 22nd, 1888. Live stock will be on exhibition during the second week of the show.

Not Our Mistake.—In last issue of the JOURNAL we announced the Clydesdale Spring Show for the 14th March instead of the 15th. We have only to say that for this announcement we are not in fault.

From One Well Competent to Judge.—Farmers, give your boys a chance. "THE CANADIAN LIVE-STOCK AND FARM JOURNAL should have a place in the home of every intelligent farmer. It is brimful of choice reading."—*Dufferin Star*, Grand Valley, Ont.

Dairying.—This is a great and growing interest. We are determined that the JOURNAL shall be kept in the van in this department also. This month we have articles from V. E. Fuller, J. Cheesman and Prof. J. W. Robertson, who stand in the front rank as authorities on this subject.

Full Measure and More.—Since last August we have enlarged every issue of the JOURNAL without any additional cost to the readers. Very much useful matter has also of necessity been held over. We aim to give a good dollar's worth. Our readers must judge as to how far we succeed in our aim.

Color in Shorthorns.—An examination of the entries of calves in the English Shorthorn Herd Book for 1886 shows the average proportion of the horns for 1884, 1885 and 1886 was 44.13 per cent., red and white 25.63, red 20.69, white 9.55. From these figures we are justified in concluding that the millennial age of all red shorthorns, in England, is a long way off.

The Outlook in New Brunswick.—Mr. W. W. Hubbard, Belmont, N. B., an ex student of the Ontario Agricultural College, writes thus: "I am happy to say times are improving in New Brunswick. There has been a great change inside the last twelve months and we look forward to a boom in all lines, which if not very exciting we expect to be lasting."

Merinos.—The wool product of merino sheep is very remarkable when compared with the weight of the sheep. Two sheep owned by Mr. L. E. Shattuck, Stanberry, Mo. sheared 26 pounds of a 4 inch staple, and 24 $\frac{1}{2}$ pounds of a 4 $\frac{1}{2}$ inch staple respectively. The carcass of the first weighed 121 lbs. and that of the second 106 lbs. Merino flocks are not numerous in this country, but we believe the breeding of this class of fine woolled sheep is extending.

From the Pigeon Reserve.—Mr. W. Middleton, Farm Instructor at Fort McLeod, Pigeon Reserve, N. W. T., has written saying: "We were visited by a most thorough-going Chinook on January 25th, which stayed with us a full week. It very quickly cleared off all the snow, and the dust was just commencing to blow in the fields when it took its departure and winter came again. I can assure you it livened us up wonderfully while it lasted."

Lack of Light.—Men who are circumscribed in their opportunities for getting light are always narrow in their judgments. A subscriber of our excellent contemporary, the *Breeders' Gazette*, of Chicago, thus wrote in his innocency regarding it: "The *Gazette* is the only Live-Stock Journal in the world, the other publications are simply imitations." It is clearly evident that man never saw the CANADIAN LIVE-STOCK JOURNAL.

Minnesota Farm for Sale.—Those in search of enlarged territory will do well to read the advertisement of the farm of Mr. Stanton, of Morris, Minn., U. S., said to be one of the best dairy and breeding farms in Western Minnesota. It is owned by Mr. Stanton, a son of Edwin M. Stanton, President Lincoln's private secretary, who engaged in farming eight years ago for the benefit of his health. Business interests now oblige his return to the east, which has led him to put this farm on the market.

"A Blundering Boy."—This is the title of a book that has reached us, by Bruce W. Munro, formerly of Toronto, but whose present address is Hamilton. The object of the writer, as stated in the preface, is "to cast ridicule on certain pedants and romancers, and to jeer at the ridiculous solemnity, mystery and villany that hedge in works of fiction. We must all feel that there is abundant room for a mission such as this, and in its prosecution Mr. Munro has done his work fairly well. The story is one of rural life, and is written in an easy and interesting style. We regard it as creditable to Canadian literature.

National Association of Swine Judges.—Our American cousins are a great people. Like the waters of the troubled sea they cannot rest. They have formed a National Association of Expert Judges of Swine, for the purpose of examining candidates who desire to obtain certificates from the Association as to their capability in discharging the duties of a judge of swine. They are required to mark the score of living animals in the presence of the examiners, and then to undergo an examination as to the reasons for their so doing. Something really advantageous to exhibitors may grow out of this if such examinations can be kept free from the trammels of favoritism.

Courage, John Bull!—Some of the United States breeders of pure-breds are attempting to get a share of the trade in pedigreed stock to the South American States, in regard to which not a few of the English breeders are somewhat exercised. This gives us Canadians not much concern although we are interested in a certain way, for the more good Shorthorn blood the people of the United States send to South America, the more they will want from us to keep up the stamina of their herds. John Bull should not take this matter very much to heart, for we pledge our word that if he helps us to keep up the stamina of our herds as in the past, we will see to it that the Americans do not suffer. He will still continue to send his cattle to the South American States, though it may be via Canada and the United States of North America.

The Clydesdale Stud Book of Great Britain.—Our thanks are due the Secretary of the Clydesdale Horse Society of Great Britain and Ireland for a copy of the tenth volume of the Stud Book. It contains pedigrees of 1,87 foals, 1000 mares and 951 stallions, a total of 3,138 as compared with a total of 2,956, the largest number in any previous volume. The number of members is, Life Governors, 110; life members, 538, and members, 422. Every member must pay, on entrance, a fee of ten shillings. In addition to the entrance fee, Life members pay a subscription of five pounds, and Life Governors of ten pounds. Annual members pay an annual subscription of ten shillings. In the list of Life members we observe the name of Robt. Miller, Jr., Brougham, Ont., and of Life Governors, John Clay, Jr., Chicago. Appendix (A) contains a list of changes in ownership and corrections of pedigrees entered in previous volumes; appendix (B) a list of stallions that have traveled districts or served mares in districts in 1887; and appendix (C) obituary and dates of exportation of horses that have traveled at least one season previous to 4th January, 1888.

The Clydesdale Stud Book of Canada.—The second volume of the Clydesdale Stud Book of Canada is to hand. It is issued, like the first volume, under the joint auspices of the Clydesdale Horse Association of Canada and the Agriculture and Arts Association of Ontario. It contains the pedigrees of 1,122 animals, of which in the stud book proper are 355 stallions and 230 mares. In the Draught Horse appendix, containing the pedigrees of mixed breeding, Clydesdale blood predominates, are 42 stallions and 65 mares, and in the Scotch appendix are 246 stallions and 210 mares. The minutes of all the meetings held to the end of 1887 are appended, and a list of members for 1888 which numbers no less than 224. The officers for the present year are:—President, D. McCrae, Guelph; Vice President, Wm. Smith M. P., Columbus; Secretary-Treasurer, Henry Wade, cor. Queen and Yonge Sts., Toronto; Directors, Wm. Rennie, Toronto; Robt. Graham, Claremont; James Beith, Bowmanville; Arthur Johnston, Greenwood; John Davidson, Ashburn; D. Sorby, Guelph; John McMillan M. P., Constance. The Association is in a prosperous condition, and the outlook for its future is very hopeful.

THE BREEDS OF LIVE-STOCK.

BY J. H. SANDERS, CHICAGO.

An exhaustive treatise on the general principles of breeding, with comprehensive descriptions of all the breeds of horses, cattle, sheep and swine known in this country, illustrated with 135 of the finest Engravings of Live-Stock ever executed. The whole forming one of the most attractive and instructive books upon live-stock ever issued in America. It is a work that every stock-breeder will be proud to have on his table, and one that cannot fail to interest and instruct any person who takes the slightest interest in the subject. From it the novice may quickly learn the distinguishing characteristics of all the various breeds, and its beautiful engravings will prove a constant source of pleasure and instruction to all. Four hundred and eighty large octavo pages, printed on the very finest plate paper, elegantly and strongly bound, in cloth, \$3; half morocco, marble edges, \$4; full morocco, gilt edges, \$5. It may be obtained in cloth, free as a premium for a club of ten subscribers to the CANADIAN LIVE-STOCK AND FARM JOURNAL, at \$1 each. Address

THE STOCK JOURNAL CO., Hamilton, Ont.

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 James Henderson, Belton, Ont., reports. "We have just purchased the colt Lord Ullin, from the Messrs. Graham Bros., Claremont, Ont. He is a very heavy colt, weighing 1870 pounds, has good bone and lots of silky hair and possesses much substance. He is by Darnley (222), and has for dam Tarbrax Tibbie (2420). He has a fine pedigree throughout. The rest of our horses are doing well."

The standard-bred Hambletonian trotting stallion Bonner Morrill No. 4910, advertised in last number of the JOURNAL for sale, and owned by Messrs. D. M. Fuller and J. M. Ford, Cowansville, P. Q., was bred by Col. Russell, Milton, Mass., owner of the celebrated trotting stallion Smuggler. Col. Russell sold Bonner Morrill for \$3,700 when four years old.

Mr. Matthew Carlyle, Dunbar, Ont., is doing an excellent work in his neighborhood. He has kept good Clyde horses for some years. In January last he imported three Clydesdales from Scotland, one sired by the celebrated Merryton Prince of Wales (673). He is two years old and is very promising. A second is by Knight of Snowdon, also two years old, and a third by Thane. A fourth, a two-year-old Shire, is a very fine specimen of his breed, and has since been sold to Messrs. Merkle and Dillabaugh. A sixth, an English thoroughbred, is six years old. He is sired by Geo. Frederick, winner of the Derby in 1874. Dam May Bell, by Lord Clifden. He stands 16 1/2 hands high, is of good form, has splendid limbs and feet, and is of a beautiful bay color. A seventh, a Norfolk Hackney, two years old, a dark brown in color, has good form and action, with plenty of bone, and will weigh about 1,200 lbs when matured. There are also four ponies.

Messrs. D. & O. Sorby, of Woodlands, Guelph, Ont., report the following sales of Clydesdales in March: To Messrs. A. & G. Davidson, Monticello, Iowa, Lorna Doone, (220), imp., foaled 1883, sire Macgregor (1487), dam Brisk and (618). Lorna Doone is carrying foal to Farmer Lyon imp. (302) (3340), and was first prize at Guelph Central Exhibition in 1884. To John Davidson, Ashburn, Ont., two colts bred at Woodlands, viz: Loch Doon (205), foaled 1886, sire Farmer Lyon (302) (3340), dam Lorna Doone (220), and Prince of Gourock (624), foaled 1887, sire Gallant Boy imp. (303) (4387), dam Jane Eyre imp. (3127). Last October we bought from the Waterloo Horse Co., Hawkesville, Ont., the grand old stock horse Boydston Boy imp. (216), (1872), to stand at the head of the stud, of which a sketch appeared in the April No. of the JOURNAL for 1884, and also his pedigree. Boydston Boy is one of the best bred horses now living, and certainly one of the best stock horses.

We are pleased to note the good work being done by Messrs. Collison & Lavin, Harrison, in the line of pedigreed Clydesdale stallions. They are at present the owners of four of these, all imported. Davie Lad (3556), foaled 1882, by Silver (2404), a second prize winner at Carlisle, is well known and of strong bone. His sire was Lord Lyon (830), by Hercules (378). Hercules Blink (4450), foaled 1883, and like the former of strong bone, is by Waterloo Lyon (2266), and the dam Jean of Shillingworth (3317), by Sampson (741). He won several 1st prizes at Kilbarchan, Paisley, and Johnstone shows before being imported. Capitalist (4004), foaled 1883, is by Riddell's Rothschild (3969), dam Darling (3631). Capitalist has for grand sire Darnley (222), and Merry Monarch (338), the sire of his dam, is by Drew's Prince of Wales (673). He is not a little of the Macgregor stamp, compact in body, but has more bone, and was 5th at Glasgow in a class of 28 in June, 1886. Tryme (3273), we regard as the plum of the lot. He is long, low, level and wide, a good horse with good body, good feet and good action. Foaled 1881, he has for sire Prince Frederick (1504), and dam Jess (7704), by Prince of Wales (673). In 1887 Tryme was awarded 1st prize and sweepstakes at Listowel open show as best horse on the ground. These horses have been abundantly patronized in the neighborhood, the best criticism that can be offered as to their worth.

The sale of the Messrs. T. & A. B. Snider, of German Mills, Ont., held on the 14th of March, was seriously interfered with by the great storm which immediately preceded it. Nearly all parties living north of the main line of the G. T. R. were prevented from reaching the sale, and a great many letters, expressive of regret, have been received by the Messrs. Snider from parties who were desirous of securing a share of the stock. The principal buyers from a distance were W. M. Moffat, Paw Paw, Ill.; S. Kline, Kansas; F. Davis, Red Wing, Minn.; E. Gaunt, St. Helens, and Samuel Johns, on Harrison. Although there was a goodly company from the neighborhood, local buyers were slow to invest in the valuable class of stock sold. The Messrs. Snider have written saying: "We are pleased to notice that a great many who contemplated being present at the sale have written in reference to what is still unsold, and in this way we expect soon to dispose of what is left. We intend to dispose of all our stock, and so long as we can realize anything like their value we will sell, that our time can be more fully concentrated on our milling business." The strictly honorable manner in which the sale was conducted, under very trying circumstances, is noteworthy. The following is a list of the animals sold and prices obtained: *Females*—Matchless 29th and calf, 30 days old, \$100, Gean Blossom 2nd, \$225, Gean Blossom 3rd, \$215, Gean Blossom 4th, 1st mo. old, \$205, Julia Lenton, \$150, to Wm. Moffat & Bro., Paw Paw, Ill.; Humber Maid, \$250, Edwin Gaunt, St. Helens, Ont.; Martha, \$165, Samuel Johns, Harrison, Ont.; Empress 3rd, \$50, T. C. Douglas, Galt, Ont.; Empress 4th, \$50, John Wallace, Stratsburg, Ont. *Bulls*: Young Strathallan, withdrawn at \$210; Deacon, \$80, Theron Buchanan, Branchton, Ont.; Beaumont, \$66, John Grant, Stratsburg, Ont. *Stallions*: Grey, Hawk, \$1,225, Samuel Kline, Marion, Kansas; Bordine withdrawn at \$2,000. The mare Helen Fawcett, \$150, Mr. Coughlin, London.

Advertising Rates.

The rate for single insertion is 28c. 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. Contracts broken by bankruptcy or otherwise, shall revert to the regular rate of 28c. per line.

Copy for advertisement should reach us before the 25th of each month (earlier if possible). If later, it may be in time for insertion, but often too late for proper classification. Advertisers not known at office will remit cash in advance. Further information will be given if desired.

G. M. BEEMAN, Napanee, Ont., breeder of heifers of choice strains of Jersey Cattle. Twenty-five cows and calves for sale. Write for catalogue and prices.

W. J. RUDD, Eden Mills P. O., near Guelph, breeder of choice Devon Cattle, Cotswold Sheep, Berkshire Pigs, and Plymouth Rock Fowls.

FOR SALE—YOUNG SHORTHORN BULLS, COWS and HEIFERS. Prices to suit the times. THOS. SHAW, Woodburn P. O., Co. Wentworth, Ont.

FOR SALE—5 choice young Shorthorn Bulls. Send for prices. E. JEFFS, Grange Park, Bond Head, Ont. mar-2

FOR SALE TWO IMPORTED CLYDESDALE Stallions, sired by the noted horses Lord Lyons and Prince of Wales. Address, WM. McLEAN, Napier, Ont. jan-4

Ohio Improved Chester Whites From imported stock. Young pigs for sale. R. & J. GURNETT, ANCASTER, ONT. ap-3

SHORTHORN HEIFER, Handsome red, two-year-old Heifer, sired by imp. Kinellar bull, in calf to imported Cruickshank bull. J. C. SNELL, Edmonton, Ont.

ENGLISH PEDIGREE STOOK. Shire Horses, Hereford Cattle, Shropshire Sheep, Berkshire Pigs and Collie Dogs are bred and can be supplied by mar-4 T. S. MINTON, Montford, Shrewsbury, England.

Pure-Bred Guernsey Bull for Sale. Fit for service this spring. Sire and grand-dam imported by the Experimental Farm. Will be sold cheap. mar-2 THOS. BALLANTYNE & SON, Stratford, Ont.

FOR SALE CHEAP. SHORTHORN BULL CALVES, 4 to 14 months old, registered in Dominion Herd Book. Address, C. E. BARR, Tweedside P. O., Winona Station, Ont. mar-2

CHOICE BERKSHIRES All ages, at farmers prices. Sows in farrow to prize boars. All from imported stock of largest size. W. G. CAVAN, Cox 127, GALT, ONT.

SHORTHORN BULLS. I have three very good young Bulls for sale, from 10 to 15 months old, good size and quality and nicely bred. Prices moderate. J. C. SNELL, Edmonton, Ont.

YOUNG BERKSHIRE SOWS FOR SALE Autumn litters and markings right Pedigrees unexceptionable. Prices very low. THOS. SHAW, Woodburn P. O., Co. of Wentworth, Ont.

For Sale - Young Bates Bulls Fit for service, representing Duchess and Seraphina families. Pedigrees right. Low, fleshy, and on short legs. **CHEAP! CHEAP!** mar-2 J. F. DAVIS, Glanworth, Ont.

BERKSHIRE PIGS. YOUNG BOARS AND SOWS of November and December litters. Spring pigs bred from first-class imported Boars and recorded sows. We ship to order and guarantee satisfaction. JOHN SNELL'S SONS, Edmonton, Ont.

FOR SALE. A few good SHORTHORN females, some of them show animals and prize-winners, in calf to an imported bull, can furnish a splendid young herd. Michigan parties can visit me cheaply and quickly, just eight miles from river St. Clair; reasonable figures. Address or see D. ALEXANDER, Bridgen, Ont. ja-3

GRADE COWS AND HEIFERS FOR SALE. From thirty to fifty head with from 3 to 12 pure crosses by first-class bulls. All in breeding condition. Will be sold cheap to make way for pure Shorthorns. THOS. SHAW, Woodburn P. O., Co. Wentworth, Ont.

Messrs. J. Moffat and R. Craik, of Teeswater, Ont., are doing good work in that locality in handling and breeding Clydesdale horses. They commenced this work in 1882, buying What Care I (1533), which travelled 5 years in the neighborhood. In 1883, Baron Solway (1938), was bought, and sold to R. Fair, Milverton, 1887. In 1885 and 1886 several good animals were imported. Bob's Boy (2450), now three years past, is by Lord Dantyre (2242), g. sire Darnley (222), dam Nan (3369), by Britain (87). Clifton Lad (vol. 11), a bay, is two years past. Like the former, he was bred by Mr. Wm. Craik, Clifton, Dumfries. His sire is Cheviot (2672), and g. sire Darnley (222), dam Fanny of Clifton (4524), by Lothian Chief (503), Statesman of Barchaple (vol. X), foaled 1885, has for sire Charming (2014), by Bonnie Scotland (1070), and for dam Fanny of Barchaple (2150), by Merry Tom (3535). Farmer 284, Glancer (338), and Loch Fergus Champlon (440), figure in this pedigree. Lord Hatfield (vol. 2), was also foaled 1885, and has for sire the famous Macgregor (1487), by Darnley (222), dam Meg of Syppland (444), by Gladstone (333). Meg of Syppland is also the dam of the noted breeding horse Charming (1870), and of Mr. Wm. Rennie's (Toronto) fine horse Bravissimo (1870), whose portrait appeared in our December issue. Neil 607 was foaled 1886. He has for sire Baron Wyllie (3407), and up the stream of his descent we find Newcastle (1597), and Lofly (458). His dam is Kate of Byes. They also own the mare Border Gipsy 2d, by Knight of Netherby, a useful animal. Several horses in the neighborhood have been sold recently to go to the U. S., for from \$300 to \$400, the get of their old stock horse What Care I (1533), some of them at two years old.

Shorthorns. Mr. F. W. Charteris, Chatham, Ont., reports the birth of a fine heifer calf, a red, from the dam Lady Evelina (15027) and the sire 10th Earl of Darlington. Mr. Charteris has on hand a number of good young Shorthorns both male and female, several of the former being fit for service.

Messrs. Green Bros., of Innerkip, Ont., write: "We have sold the roan Shorthorn bull calf Highlander, sired by Burford Laddie—2645, dam Duchess of Hailton, by High Sheriff III—2811, to Mr. John F. Learned, of Cookshire, P. Q. Highlander is a very heavy fleshed, short legged bull of great quality, and has gone into good hands."

Mr. W. Murray, Chesterfield, Ont., advertises in this issue, the grandly bred bull Alaric, Duke of Oxford, a roan, calved Jan. 1886, sired by Duke of Brant 55478, and out of the dam Gr. Duchess of Oxford 69th, by Baron Oxford 12th 45926. He traces through an ancestry rich in famous blood, ending with Young Wynard (2859).

Mr. Mathias Kirby, Armstrong's Mills, Ont., has purchased from Mr. F. W. Stone, Guelph, the promising young bull Lord Gloster 316, 2 yrs. old, roan, sired by Barrington J ad 31746, dam Maud 9th, by 8th Airdre 21883, etc., tracing to imported Maud =335.

Mr. A. Wood, St. Marys, Ont., has bought a 1 year Strathallan bull, a roan, from John Miller & Son, Brougham, Ont. His dam is full sister to the celebrated Strathallan cow which won so many Provincial prizes for the Messrs. T. & A. Snider, German Mills. His sire is the fine imp. Cruickshank bull, Vice-Consul at head of Mr. Miller's herd. We are safe in saying that this is one of the best Canadian bred Shorthorn bulls in the country. See breeder's card of Mr. Wood.

Messrs. S. Barclay & Son, Beaver Meadows, Dale P. O., mention: "Since last report we have got one red bull calf, dropped December 19th, 1887, got by Oxford imp., dam Priscilla, by Dr. Miller. On February 24th, 1888, one heifer calf, red, by Oxford imp., dam Priscilla 4th, by Barrington Champion. We sold to W. Magee, of Janetville, one heifer calf and one yearling bull, making six to him since of twelve months. One yearling bull to J. H. Rosevear of Cobourg, and one to Mr. Bowman, Cold Springs. These are the ones that took 1st, 2d and 3rd prizes at Cobourg Central last fall as calves."

POSTPONEMENT OF SALE.—We desire to call the attention of our readers to the postponement of the sale of Messrs. John Ireland and Wm. Templar, Jerseyville, Ont., which was advertised in the last number of the JOURNAL for March 21, in consequence of the stormy weather on that day. It will be held on the 11th April, when 20 head of purebred Shorthorns, of which 25 are females, to head of Shorthorn grades, 6 young horses and 17 Leicester sheep will be sold. The Shorthorns are good milkers, a great requisite in this era of dairying. The cattle are in fine condition for breeding and the sale will afford a fine opportunity for beginners to invest.

Mr. A. Williamson, Toronto, has just sent out a carload of stock and farm furnishings to his beautiful farm in Manitoba, situated near Souris City. The Shorthorns included several animals from the herd of Mr. T. D. Hodgins, London, Ont. Of these Seraphina Duchess 5th was bred by R. Gibson, Delaware. She is a very fine cow and a rich milker. Elmwood Garland 4th, is by Beloch, a \$3000 imp. bull, bred by C. Ward, England. Bella is of a similar strain, and very similar in breeding, are Elmwood Garland 3rd and Elmwood Bell. A pair of Berkshires were included from the herd of T. Shaw, Woodburn. Mr. Williamson has now one of the finest stock-farms in Manitoba.

Mr. David Milne, Ethel, Ont., writes: "Our stock of Shorthorns are doing well. Have made the following sales at fair prices during the last twelve months: 1 bull calf to Chas. Wheeler, Belgrave; 1 heifer calf to W. McCracken, Sunshine; 1 bull calf to R. Charteris, Seaforth; a yearling heifer to W. Carnochan, Egmontville; 1 bull calf to T. Nash, Seaforth; 1 two year bull to J. Young, Wroxteter; 1 bull to P. McDonald, Cranbrook; 1 bull calf to J. & C. Wheeler, Sunshine; 1 bull calf to J. Harris, Walton; 1 three year cow and heifer calf; 1 five year cow and 1 two year heifer to Peter Scott, Neepawa, Man.; and 1 bull calf to J. B. Govenlock, same place. The herd now numbers 33 head with six cows to come in yet. Three of the number are young bulls fit for service. The bull imp. Red Knight, bred by Mr. S. Campbell, Kinellar, heads the herd. Have also commenced to breed Clydesdale horses and Berkshire pigs."

Mr. Heber Rawlings, Ravenswood, Ont., writes as follows: "Shorthorns doing well. Sales good, having just disposed of five yearlings at good prices. Lady Stanley has a roan c. c., Lady Clarence a roan b. c., Snowball a roan b. c., Fance, Roan, a white b. c., Lady Clarence 3d, a red b. c., Queen of the Fashion, a red b. c., Fashion 3d, a roan b. c., Fashion 2nd, a roan b. c., Maud, a roan c. c., all sired by Minister Eclipse, the first prize yearling at Toronto. He has proved himself a good getter. The imported Clydesdale stallion Craig-endarrach has done well. He is a very even colt on short legs, weighing 1,700 lbs. although only two years and nine months old. Have eight brood mares, five of whom are in foal to him."

Mr. Hugh Mitchell, Southend, Ont., will sell by public auction his entire herd of Shorthorns on Wednesday April 18th. It consists, as stated in the advertisement, of the stock bull The Bachelor, seven cows, five heifers, one yearling bull and four calves. The Bachelor is a red roan of fine, even development, and good all round quality, a bull of whom none need be ashamed in any company. His back, loin, quarter, head, all are good. He is by imp. Lord Lansdowne (51601), dam Irim Belle and The females are chiefly of two ancient families, one descended from stock owned by the late C. M. Lansing, Niagara, and tracing through a long line of bulls, the seventeenth of which is the bull, a son of Bolingbroke. Others come of that famous old Bates family which are descended from Beauty = 638 =, by Brilliant = 375 = etc. The young stock are from a son of Prospect. Some are from Prospect, bred by J. & W. Watt, mainly Cruikshank, and the young calves are by The Bachelor. The herd is in good condition, and is composed of strong, hearty animals.

Herefords.

On Wednesday April 11th, Mr. F. A. Fleming, of The Park, Weston, Ont., will hold an auction sale of Hereford cattle. Send for catalogue.

Mr. W. F. Stone, Guelph, Ont., advertises in this issue, a number of choice Hereford bulls for sale. They are descendants of those families which for so many years captured the prizes at our leading exhibitions.

Galloways.

Mr. Thomas McCrae, of Guelph, has sold to Mr. R. E. McGregor, Rapid City, Manitoba, the young Galloway bull Randolph 460, of the celebrated Rance family, and by Violet's Clansman (4053), bred by Capt. F. E. Villiers, Closeburn Hall, Dumfriesshire, Scotland.

The Galloway herd of Mr. Wm. Kough, Owen Sound, Ont., is one of high average quality. The stock bull is Closeburn 674, calved in 1883, first at Toronto, 1885, and 1886, also silver medal same year at Toronto, and first and silver medal at Provincial, Guelph, 1886. In 1887 he was first at Toronto which was also the Dominion exhibition, and won silver medal at head of herd, for one bull and four females, and bronze medal at head of herd, for one bull and four females over one year, and also first at Provincial, Ottawa. There is also an imported bull Croochs 673, of 1885, Robin Adair 2124 an 1885 bull, by Closeburn (674), and a successful prize winner, an 1886 bull Claverhouse (4250), bred at Dalbeattie, Rajah of Brooke 3070, by Closeburn (674), and Punch of Dromore 4645, calved 1888, and sired by Croochs 673. In this herd there are seven cows, two two-year heifers, six one-year heifers and three heifer calves. A large number of these are imported. The cows are mostly by Lord Chelmsford (521). Some of the younger stock are by Closeburn 674, some by Croochs 673, and some are imported from the herd of Thos. Biggar & Son, Chapelton, Dalbeattie. These are by the great Crusader.

Mr. Wm. Martin, of Morris, Manitoba, has purchased from Thomas McCrae, of Guelph, a small herd of Galloways of superior merit, to found a herd of these hardy cattle in Manitoba. As the Galloways have done better than any other breed in the uplands of Colorado and on the plains of Dakota and Minnesota, they will no doubt do equally well in Manitoba and the North-West. Mr. Martin takes the young bull Black Crusader (4504), sired by Crusade 2858, and from the Blackie family of Balig, the oldest record 2nd family in the Galloway Herd Book. He has also a Crusader heifer Christabel (10002), a winner of several first prizes both at Toronto Industrial and at the Provincial at Ottawa. She is descended from the Wellington (22) Blackie family on the dam side. Hannah I. C. R. (10004), a winner at the Provincial at Guelph, in 1886—a good cut of her as a calf has appeared in this JOURNAL. She was bred by Sir R. Jardine, M.P., of Castlehill, Lockerbie, Scotland, and is a member of the Hannah (214) family, the premier one amongst the Galloways. Black Beauty XII (10500), from Balig, is a very blocky, short legged heifer, of a type of animal very hard to beat. In three-year-old heifers he takes Grace of Penningham (9448), bred by A. McConchie; Newton Stewart, a very well bred heifer tracing back to Havlock (544), bred by J. Wallace, Langbown; Martha III (9487), bred by Thos. Biggar & Sons, Chapelton, Dalbeattie, sire Corporal (1838), a Balig bred bull, and Kate II, of Bamioffity (10501), bred by W. Sherman, and descended from Kate of Balig (1335). Mr. Martin takes also three calves, Karoo, Black Beauty of Guelph and Hannibal, making in all ten head. They go to their new home via C. P. R., by north shore of Superior.

Messrs. Thos. Biggar & Sons had the misfortune lately to lose their fine Galloway bull Crusader (4538). He was calved Mar. 6, 1883, and his personal merit, combined with the marked excellence of his stock, entitle him to rank as one of the finest bulls of this valuable and hardy breed. His breeding could not be surpassed, his sire being Scottish Borderer (666), a son of the noted Black Prince of Drumlanrig, and his dam Clara 4th (3963), a member of the Clara tribe, which the Messrs. Biggar have owned and bred for twenty-five years. Clara (1375) was their first exhibit at the Highland Society, and carried off first prize in the cow class in 1869. Crusader was exhibited as a yearling at the Galloway Derby in 1884, and on that occasion took fourth place in a class of over ninety entries. Messrs. Biggar also took first and third places in the same class, but they showed their preference for Crusader by reserving him at £200, and subsequent events proved the wisdom of their choice. At the Centennial show of the Highland Society a few months later he was an easy first in his class, defeating all the bulls previously placed

JOHN FENNEL, Berlin, Ont., offers for sale a few well-bred fresh JERSEY COWS, also a fine ST. LAMBERT BULL CALF, 7 months old. ap-2

FOR SALE—HOLSTEIN BULL
Five years old Good animal. Very quiet.
ap-3 Address, ELIAS PANNABECKER, HBSFALLER, ONT.

SHORTHORN BULLS FOR SALE.

EIGHT Young Bulls from 9 to 18 months old, got by my Sheriff Hutton bull "The Premier," one two years old by "Prince James" #968. They are an extra good lot, and will be sold very cheap, as I am short of feed. Also ten choice Leicester ewes, due to lamb in April.
mar-2 W. G. PETTIT, Burlington, Ont.

Clydesdales For Sale.

One Clydesdale Stallion, 2 years old; one Clydesdale Stallion, 1 year old, one Clydesdale Mare, 10 years old. All grand animals, and registered in the 2nd vol. C. S. B. Or

WILL EXCHANGE FOR CLYDESDALE FILLIES.

ap-3 Address, W. C. B. RATHBUN, Deseronto, Ont.

BULLS FOR SALE.

THE Imported Cruickshank Bull "Lord Lansdowne (51601)," and five young bulls from twelve to twenty-four months old.

J. & W. B. WATT, Salem P. O.,
Elora, G. T. R. and C. P. R. stations.

—FOR SALE—

STANDARD-BRED HAMBLETONIAN TROTTER STALLION
BONNER MORRILL No. 4910 Wallace's Trotting Register. Can trot in 2:30 when fitted. Color, dark bay. Weights 1,200 lbs., 16 hands high; sound. One of the finest stock horses in the country. Sire, Robert Bonner—record 2:32; he by Rysdyk's Hambletonian. Dam, Juliette, by Young Morrill, he by Old Morrill, he by Sherman Morgan. Sold as we have no use for him. D. M. FULLER & J. M. FORD,
fe-3 Cowansville, P. Q.

IMPORTED CLEVELAND BAYS FOR SALE.

I have three imported Cleveland Bay Stallions and one mare, in foal, also one first-class imported shire stallion, and a good grade in each of the above classes. The stallions are all three and four years old, sound and good. For particulars, address,
FRED ROW Avon P O,
Elgin Co., Ont, Canada.

Three Cleveland Bay Stallions For Sale.

King Farrfield, rising 5 years old.
McArthur, rising 3 years old.
Bay Comet, rising 3 years old.

These stallions are all highly bred, the three-year-olds are in-bred. Farrfield's dam was awarded first and diploma three years in succession at Toronto and Guelph Provincial. The dam of Bay Comet carried second at Toronto in 1885, 1886 and first this year at Carriage Breed Mare.

W. C. BROWN, Meadowvale, Peel Co., Ont.
Farm, ½ mile from Meadowvale Station, C. P. R. ja-3

SHORTHORN BULL FOR SALE.

ALARIC DUKE OF OXFORD, roan, calved January 10th, 1886, sire Duke of Brant 5478, dam 69th Duchess of Oxford, imported from the Duke of Devonshire's herd. Large, of fine appearance, grand quality, smooth and even. A first-class animal.
ap-2 WILLIAM MURRAY, Chesterfield, Ont.

JERSEYS FOR SALE.

Twenty-five cows and heifers, A. J. C. C. Jerseys for sale. Herd headed by the pure St. Lambert bull, Kitty's Stoke Pogis. Prices unusually low, and time given for payment if desired. Write for catalogue and prices. Also

HAMBLETONIAN HORSES AND SHROPSHIRE SHEEP FOR SALE.

G. M. BEEMAN, Napance, Ont.

FOR SALE.

TWO IMPORTED HORSES.

ONE Cleveland Bay, 7 years old, weighs 1,270 lbs., 16 hands high, winner of 3 first prizes and 1 silver medal. One Clydesdale, 2 years old, weighs 1,550 lbs., 16½ hands high, and registered in 10th vol. C. S. B. of G. B., also C. S. B. of Canada, winner of 4 first prizes; also 12 varieties of pure-bred Poultry, at low prices. Bronze Turkeys a specialty. Correspondence answered by sending 3 cent stamps. Address,
ja-3 MAJOR THOS. HODGSON, Port Perry, Ont.

above him, and he also carried off the twenty-five guinea cup as the best Galloway bull of any age. He was only exhibited on three occasions afterwards, and always maintained the premier position, and for two years past has been entirely devoted to breeding purposes. His sire, Scottish Borderer, has proved a noted sire of heifers, and Crusader has proved equally good. Two of his daughters were placed second in both the two-year-old and yearling classes at the Royal Show at Newcastle. A yearling bull was placed second in the Derby of last year, and other of his calves have taken first prizes both in this country and in America. Messrs. Biggar have on hand about thirty of his produce, but the loss of such a valuable sire is much to be regretted. A well known breeder writes: "I think Crusader had the most quality of any bull I ever saw."—London Live-Stock Journal.

Aberdeen-Angus

Messrs. Hay & Paton, New Lowell, and M. Boyd & Co., Bobcaygeon, are to hold a large combination sale of Aberdeen-Angus cattle in Chicago sometime in May. Our Canadian farmers should not allow all the Aberdeen-Angus cattle that we breed to go to that land of illimitable possibilities. Aberdeen-Angus beef is very toothsome. When we come to try it often, we will not be without it.

Jerseys.

Mr. John Fennell, Berlin, Ont., advertises for sale in our issue of this month, a few head of fresh Jersey cows, and a fine St. Lambert 7 months old Jersey bull calf. The St. Lambert family, all Jersey breeders know, is probably the best of the kind. This is saying a great deal, as the Jerseys are well known to be great butter producers. We understand Mr. Fennell has lately sold some fine young animals. His stock bull is a son of Canada's John Bull, a very fine animal which has produced some excellent young stock. No doubt the Jersey cow is a very desirable animal for persons living in towns, and we may add out of them also.

Holsteins.

B. B. Lord & Son, of Sinclairville, N. Y., write under date of March 3d: "The spring is advancing and with it comes renewed interest in the farm and the dairy. Holstein-Friesian cattle no longer need commendation at our hands for their claims to superior merit are well established. Mr. Herman Bollert, of the enterprising firm of H. & W. F. Bollert, Cassel, Ont., has just visited the Sinclairville Stock Farm, and made from us their eighth purchase of Holsteins. This is their second purchase within a year; and gives some idea of the increasing demand for these cattle in the Dominion. These eight sales amount to nearly \$8,000, and have established one of the finest Holstein herds in Canada. This selection includes two extra fine imported cows (of last year's importation) one a daughter of the beautiful Glenburnie, with a milk record of 8½ lbs. per day and 18½ lbs. of butter in seven days. The other has a milk record of 8½ lbs. per day and 19 lbs. butter per week.

Messrs. A. C. Hallman & Co., New Dundee, Ont., report The demand for first-class Holsteins is fast increasing. We receive enquiries for stock daily. Our customers speak in the highest terms of the stock they are getting, and report very encouraging patronage for their young bulls for the season. We have made the following sales since our last report: A very fine 2-year-old bull to Mr. Henry Young, Tavistock, Ont., and a pair (bull and heifer) to Mr. Charleston, St. George, Ont. These are the first taken to that section, and we are sure Mr. Charleston will find it a very profitable investment. The heifer took first prize at London in 1887, and the bull is sired by our noted herd bull Prairie Aggie Prince. We have two young bull calves dropped, sired by our young Netherland bull, and they show very fine qualities. We have still a very good choice of young bulls on hand, and will be pleased to have parties inspect our stock at any time.

The Messrs. Bollert, of Cassel, Ont., write under date of 23d March: "We are advised from the quarantine station at Point Edward that our Holsteins are doing very finely, and that the herd has increased by a birth from the heifer Michigan Maid, which dropped a beautiful large b.c. sire by a grandson of the famous Barrington. This importation includes some of the finest cows ever brought to this country. The home herd decreases rapidly in numbers through the many sales we are making. To-day we shipped two fine imported cows to John Gemmell, Wroxeter, Ont., and a very choice yearling bull to L. Lowell, of same place. Next week we are to ship a homebred yearling heifer, Huron Maid, to Mr. J. Wilson, Jamestown, Ont., and the yearling bull, Vista's Sir Archibald, to Wm. Forrest, of same place. The demand for superior animals is continually increasing, so much so that we are compelled to make a third importation in order to supply our customers. This importation will consist mainly of yearling heifers of the very finest breeding and quality."

Sheep and Pigs.

Mr. F. W. Stone, Guelph, sold last month to Messrs. Rice & Vining for shipment to Manitoba, one Cotswold ram and 36 Cotswold ewes; also one Southdown ram and 2 Southdown ewes.

Mr. W. G. Cavan, Galt, Ont., writes: Since last writing you my Berkshires have done well, and 6 of my best sows have produced me 31 living pigs; fine, lusty fellows they are, and lots of them. They look just the material for making winners. Among my recent sales are the following: One boar and one sow, W. Andrews, near Kingston, Ont.; 1 boar and 2 sows, M. Lennox Churchill; 1 boar, Geo. Hawkins, Pembroke; 2 sows, D. S. Holcomb, Jackson, Mich.; 1 sow (being the second this winter), to R. E. Swazey, Muskoka; 1 boar and 2 sows, L. F. Ashley, Columbus, Ohio; 1 boar and 1 sow, Wright's Stock Farm, Lockport, N. Y. Among my recent purchases I have secured the noted show sow, Montford 92, winner of 2d prize at the English Royal last year, also winner of 1st at Toronto, Ottawa and Hamilton fairs as aged sow. She is now in farrow and I expect a grand litter. I also bought the choice sow of the litter farrowed by her at Toronto show last fall. This handsome young sow is also imported and is a beauty, and will likely be heard from later on. Trade is good, and I am booking spring orders. It is only fair that I should mention each 'ad' in your paper brings me lots of customers."

Mr. H. H. Spencer, Brooklin, Ont., writes: "Shropshires and Berkshires have been in good demand and have brought fair prices. Berkshires sold off very close. Young stock coming vigorous and healthy. The Shorthorn calves are all reds in color, and all sired by Cruikshank bulls. Shropshire lambs coming nicely. At this date (15th March), 14 ewes have produced 25 very choice lambs, all living and doing well, and 19 of them are ewe lambs. Two out of the fourteen have triplets, and are doing well."

Messrs. W. H. & C. H. McNish, Lyn, Ont., write: "We have no reason to complain of our Berkshire business of late, as we have sold all we wished to sell, and we are now taking orders for spring pigs, of which we have three very fine litters all doing well. We are expecting an importation from England early in May, of a grand boar and several sows. We give you the following list of sales which we have made since last reported: To T. R. Proctor, Utica, N. Y. 1 imported boar and 3 sows; S. Ransome, Delta, Ont., 5 sows (two imported); Geo. Green, Fairview, 1 imported sow; T. Shaw, Hamilton, 1 imp. sow; J. M. Kuter, Greenbush, 1 boar and 1 sow; B. Brown, Lyn, 1 sow; F. Bonnycastle, 1 boar; W. J. Commins, Spencerville, 1 boar; Arthur Craig, Craighurst, 1 boar; W. S. Cuthbert, Hammond, N. Y., 1 boar; S. Frayne, Lombardy, 1 boar; R. Littlejohns, Lyn, 1 sow; Jas. Peterson, Gosport, 1 boar; W. G. Cavan, Galt, 1 imp. boar; Jas. Dickey, Lyn, 1 sow; S. Hinman, Dundonald, 1 sow. We have also sold our Canadian bred Clydesdale colt Ivanhoe, rising three yrs., to Messrs. Jas. Neilson & Sons, Blink Bonnie Farm, Ly. Ont."

Messrs. E. Gaunt & Sons, St. Helens, Ont., report the following sales: Leicesters—1 shearling ram, Francis Wharram, Romney; 1 shearling ram, Wm. Hogg, Thamesford; 1 imp ram, Jas. Patterson, Ripley; 1 ram lamb, M. Mitchell, Kincardine; 1 ram lamb, A. Bishop, M. P. P., Exeter; 1 ram lamb, Jas. McLean, Dunganon; 1 ram and 4 ewes, J. Murray, Lucknow; 3 ewe lambs, H. Deacon, Belgrave. Shorthorns—1 bull calf, R. Ferry, Whitechurch; 1 heifer calf, Jas. Cranston, Langside. We have also purchased a cow and calf at Messrs. T. & A. B. Snider's sale. Our stock bull, Lord Lovell, who pressed close for first place at the last Western Fair, still retains his wealth of flesh on comparatively scanty fare, and though probably termed a "lump of tallow" by some, we easily distinguish a wide difference between a natural fleshiness, for which the Cruikshank cattle are noted, and a forced and pampered animal, which hides many faults but yet does not possess that quality which is of first importance to-day. We are having some remarkably fine calves dropped to his service and think he bids fair to equal his noted sire, Barmpton Hero, in this respect.

Poultry.

Messrs. Butcher & Ivy, Jarvis, Ont., advertise on another page eggs for sale, from a large variety of choice breeding fowls; also have for sale a few cockerels.

The fowls of Mr. William Hodgson, Myrtle, Ont., so frequently advertised in the JOURNAL, won many prizes at the leading fairs last year. The following score of birds owned by Mr. Hodgson was given by the judge, Mr. J. V. Bicknell:—Light Brahmas, 97½; Dark Brahmas, 93; Black Spanish, 97½; Dorkings, 94; Langshans, 99; Plymouth Rocks, 89.

Table of Contents.

Table of Contents listing various departments and their page numbers: STOCK DEPARTMENT (103-110), VETERINARY DEPARTMENT (110-111), FARM DEPARTMENT (111-114), DAIRY DEPARTMENT (114-115), POULTRY DEPARTMENT (115-116), HORTICULTURAL DEPARTMENT (116-118), MISCELLANEOUS (118-125).

BERKSHIRES.

We now offer for sale some really fine spring pigs, either singly or mated for breeding in pairs, at reasonable prices, and bred from our Imported prize-winning herd.

NINETY PURE-BRED SHORTHORN & HEREFORD BULLS FOR SALE

At reasonable prices. Single animals or by car load. Good Animals and first-class Pedigrees. Also COWS and HEIFERS.

F. W. STONE, 42 Gordon St., GUELPH, ONT.

POSTPONEMENT OF SALE

The subscribers, in consequence of the very severe storm and almost impassable state of the roads on March 21st, have been compelled to postpone their sale announced for that day until Wednesday, April 11, 1888

when the whole of their high-class stock, as previously advertised in this journal, will be sold to the highest bidder, without any reserve whatever. Mr. Ireland, having leased his farm, must of necessity dispose of his stock. Sale to commence at 11 o'clock sharp. Shorthorns will be brought under the hammer at 2 o'clock p.m. Parties will be conveyed to and from all trains stopping at Copetown station on day of sale and afternoon previous. Seven months' credit will be given on all sums over twenty dollars on approved notes; under that amount, cash. Lunch at noon. Send for catalogue.

JOHN IRELAND, Copetown P.O. WM. TEMPLER, Jerseyville P.O.

Note by the Auctioneer.

Having had an opportunity of inspecting the whole of the stock on the day first announced for the sale, I can highly recommend them to intending purchasers as being animals of superior merit and in prime condition, and well worthy the attention of anyone requiring good, thrifty well-bred stock.

GEORGE ANDREW, Auctioneer, Oakville, Ont.

SALE

Imported and Home-Bred HEREFORDS

Wednesday, 11th April, 1888.

I will sell by public auction at my farm at Weston, Ont., on the above date,



30 Head REGISTERED Herefords,

consisting of 23 young cows and heifers and 7 bulls—seven animals being imported, the remainder from imported stock. All are in fine condition, and well bred. The blood of Horace Grove 3rd and Lord Wilton being well represented—breeding that cannot be excelled.

WESTON is 8 miles from Toronto, on the Grand Trunk (main line) and C. P. R. (Owen Sound Branch). The farm buildings are half a mile from both railway stations.

Sale will take place under cover if the weather is unfavorable.

TERMS—Seven months credit on approved notes. Seven per cent. per annum off for cash.

Catalogues sent on application to JOHN SMITH, Brampton, Ont., Auctioneer, or to

F. A. FLEMING, Proprietor, Weston P. O.

POULTRY.

REYCROFT & STONE, Highgate, Ont., breeder of Light and Dark Brahmas and Plymouth Rocks. Prize-winning stock for sale. Eggs, \$1.50 per 13. Write for wants. apr-3.

EGGS for hatching from prize-winning Silver and White Wyandottes, \$2 per 13. P. G. KEYES, Ottawa, Ont. apr-3

The BEST and CHEAPEST Get 1005 from first prize strains of PLYMOUTH LIGHT BRAHMAS, BLACK HAMBURGS EGGS, \$1 for 13. Carefully packed in baskets. Satisfaction guaranteed. Address, C. H. RICHMOND, 125 King Wm. St., Hamilton, Ont.

PLYMOUTH ROCKS FOR SALE. Pulletts, cockerels and eggs in any quantity, cheap and good, and of a very fine laying strain. THOS. SHAW, Woodburn P. O., Co. Wentworth, Ont.

HENRY BAILEY, Highgate, Ont.

Breeder of WHITE LEGHORNS (Lee's strain) and WHITE CRESTED BLACK POLISH. Eggs \$1.50 per 13.

GEO. LEE, Highgate, Ont., breeder of WHITE LEGHORNS exclusively. My yard for this season contains 10 extra fine hens and pullets, mated with "Admiral," score 95½. Eggs only \$1.50 for 13. mar-3.

A. G. H. LUXTON,

OF THE BARTON POULTRY YARDS, is prepared to supply eggs from thorough-bred Light Brahmas, Buff Cochins, Plymouth Rocks, Houdans, Black Spanish, White and Brown Leghorns, Golden Sebright Bantams and Cayuga Ducks, at \$1.50 per setting, carefully packed. See January number for prices won. apr-2

EGG KEEPING PROCESS

Best in America to preserve Spring and Summer Eggs for Winter use. Will keep eggs good and sound for over 18 months, pays for itself on a few dozen. I have sold Spring preserved eggs in winter for highest prices as quick as fresh eggs. Will do all I claim it to do. References given (as to the merits of this process) if required. Send with full printed directions for \$3. Send money order if possible. Address either E. HORLEY, Vienna, Ont., or 457 Fort St. E., Detroit, Mich.

UNION POULTRY YARDS

We will sell EGGS from Houdans (Bogue strain), S. S. Hamburgs (Bogue and McNeil strains), P. Rocks (Conger strains), Light Brahmas (Autocrat strain), Wyandottes (Conger and Dakin's strains), Brown Leghorns (Hamlet and Paton strains).

\$2.00 PER 13.

Have a few Cockerels for sale. Write for description of pens. Address,

JAMES BUTCHER and R. F. IVEY, JARVIS, ONT.

W. B. COCKBURN, ABERFOYLE, ONT.

Plymouth Rocks and Toulouse Geese

My Plymouth Rocks won first prize on both old and young birds at Guelph last fall, only place exhibited. Eggs from these only—\$2 for 13. mar-3.

WESTMINSTER POULTRY FARM

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

Eggs for hatching DARK BRAHMAS and WYANDOTTES. Stock equal to the best. Have won wherever exhibited. At the late Ontario Show my Brahmas won seven out of a possible nine prizes.

PRIZE-WINNING BIRDS FOR SALE.

LIGHT and Dark Brahmas, Plymouth Rocks, Langshans, L. W. F. Black Spanish, Houdans, White and Brown Leghorns, Colored Dorkins, Black Minorcas, Bronze Turkeys, Rouen and Pekin Ducks, Toulouse Geese. Upwards of 60 prizes at the recent Poultry Shows.

EGGS FOR SETTING NOW READY.

Send three cents for circulars. Birds and prices right.

WM. HODGSON, BOX 12, BROOKLIN, ONT.

LAKE ERIE POULTRY YARDS.

L. W. EDSALL, Proprietor, SELKIRK P. O., ONT.

L. and D. Brahma, P. Rock, S. G. Dorkins, Wyandottes, Langshan, Polish, Leghorns, Houdans, S. S. Hamburgs, B. Spanish, and all kinds of Bantams; Pekin, Rouen and Aylesbury Ducks; Mammoth Bronze Turkeys.

EGGS from fowl, \$2 for 15; from ducks, \$3 per 13. Single birds, \$2, \$3, \$5 and \$10. Per pair, \$3, \$5, \$7 and \$10. Per trio, \$5, \$7, \$10 and \$15. A few choice birds for sale now. mar-6

WANTED—A GOOD FARM HAND, to work by the year. Without good references none need apply in writing state wages. JOHN SOULE, South End, Ont.



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

Pure SHORTHORN CATTLE

The splendid young roan bull 10th Earl of Darlington, bred at "Belvoir," and possessing the blood of the Darlington, Oxford, Airdrie and other famous strains, at head of herd.

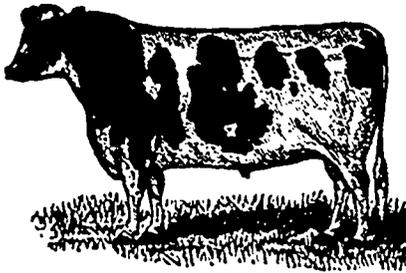
Four bull calves for sale, sired by Crown Prince (22366) and Lord Byron (8821), and a few heifers, all registered in the new Dominion Herd Book.

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

Visitors met at station.

1105-12

J. E. PACE & SONS,
AMHERST, NOVA SCOTIA,
On line Intercolonial Railway,



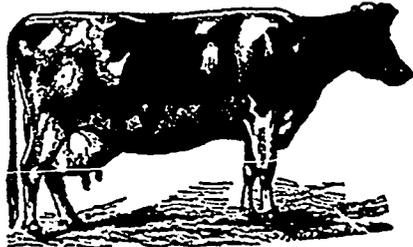
Importers and Breeders of

HOLSTEIN-FRIESIAN CATTLE

Including strains of the best milk and butter families living. Herd headed by CLOTHILDE and ARTIS, whose dam, Clothilde and, gave at 4 years old 23,600 lbs. of milk, and made 23 lbs. 4 oz. of unsalted butter in seven days when six years old. G. dam, Clothilde, winner sweepstake prize at New York Dairy Show, has milk record of 26,080 lbs. of milk and 23 lbs. of unsalted butter in seven days. Sire, Artis, winner first prize at New York Dairy Show.

Young stock, all ages, for sale, including Carlotta's, Netherland Prince, dam Carlotta, with butter record of 22 lbs. 1 oz. unsalted butter; sire, Netherland Prince. Prices low for quality of stock.

The Manor Stock and Dairy Farm



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

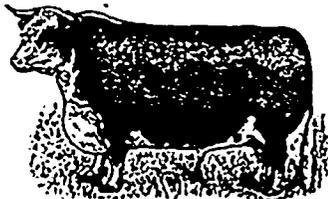
Parties wishing to secure bull calves or yearlings from such a grand individual, and out of nothing but imported Holstein-Friesian cows, will find it to their advantage to write to

F. N. RITCHEY,

St. Anne la Perade, Co. Champlain,
on line C. P. R., near Quebec.

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

THE TUSHINGHAM HERFORDS



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

J. W. M. VERNON,
Waterville, P. Q.

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

MAPLE LODGE STOCK FARM

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

We are now offering
FOR SALE
decidedly the best lot of
YOUNG BULLS

we have ever raised, age from 8 to 15 mos. They are good teds and rams, lengthy, thick-fleshed, stylish bulls, on short legs, choicely bred, and our cows are first-class milkers.

We also wish to sell about one-half our females. Our prices are very moderate.

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



WYTON

Stock-Breeders' Association

BREEDING OF PURE

HOLSTEIN AND FRIESIAN CATTLE

A SPECIALTY.

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

The largest herd of Holstein cattle in Canada, from which we are prepared to sell bulls and heifers. If you are in want, come and see us. Prices reasonable. Correspondence solicited.

Address

WM. B. SCATCERD,

Secretary, Wyton, Ont.



For Sale.

REGISTERED



Suffolk and Berkshire Pigs

HOLSTEIN BULL CALF

12 months old, from imported dam and sire, eligible for American Herd Book.

2 Pure-Bred Clyde Fillies—Yearlings

One from McArthur and one from British Flag, both imported horses—McArthur first at Toronto last Industrial. Also

SHORTHORN COWS FOR SALE.

J. F. RAMSEY,

MOULTONDALE STOCK FARM,

DUNNVILLE P. O., ONT.



Daniel DeCourcy
BORNHOLM, ONT.

IMPORTER AND BREEDER
OF
**OHIO IMPROVED
CHESTER
WHITE SWINE.**
Stock for Sale. Registered pedigree.

A. FRANK & SONS

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

BREEDERS OF

Thoroughbred Horses

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

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

**LORRIDGE FARM
SOUTHDOWN SHEEP.**

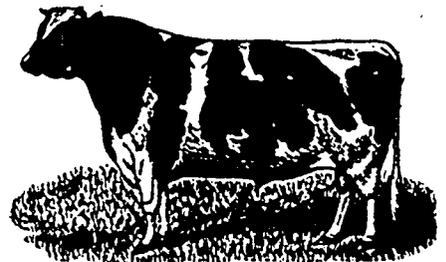
Flock first established 1857. Commenced exhibiting 1867. Since then have taken over 1,000 prizes, including a large number of medals and diplomas.

Imported Rams used only.
Stock for sale.

ROBERT MARSH, Proprietor.

RICHMOND HILL, Aug. 17th, 1886.

HOLSTEIN and JERSEY CATTLE



OWING to the expiry of the lease of part of my pasture land, I offer for sale a considerable part of my fine herd of Holstein and Jersey Cattle. My herd of Holsteins is the finest in Canada, and consists entirely of animals imported from Holland or their calves. The herd is headed by Presto 380 N. H. B., the only bull in Canada winner of a first prize at any of the great Fairs in Holland. My herd was exhibited at only three Fairs in 1887—the Dominion and Industrial in Toronto, the Provincial at Ottawa, and the Central at Hamilton—and won more medals, diploma and money prizes than ever were won at the same number of Exhibitions by any herd in Canada. No fancy prices. Easy terms of payment. For catalogue and pictures of cattle and prices, apply to or address
JOHN LEYS, Toronto.

**CREDIT VALLEY STOCK FARM.
SMITH BROS.**



CHURCHVILLE, (PEEL CO.) ONTARIO,

Breeders and Importers of Pure-bred Registered
HOLSTEIN-FRIESIAN CATTLE
SADDLE and CARRIAGE HORSES.
Stock always on hand for sale. Send for catalogue. Visitors always welcome. jnc.6

JAMES DRUMMOND,
Petite Cote, Montreal.

Importer and Breeder of

PURE-BRED

**AYRSHIRE
CATTLE**



Of Large Size, and from Choice
Milking Strains.

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

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

A. C. HALLMAN & CO.,
NEW DUNDEE, WATERLOO CO., ONT.

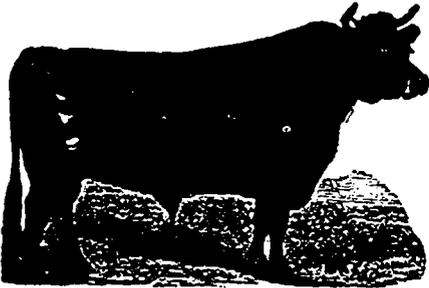


Importers and Breeders of Thorough-bred

HOLSTEIN-FRIESIAN CATTLE.

Herd headed by the noted prize-winner Prairie Aaggie Prince H. F. H. B. No. 2, first prize at the Industrial and Provincial in 1826, dam, Prairie Flower, 5 yr. old butter record of 20 lbs. 1 oz. unsalted butter per week. This herd has been crowned with more honors in the showing than any other herd in Canada. Selections made from the finest herds and most noted milk and butter producing families in America. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto, "QUALITY." Stock for sale. Visitors welcome. Correspondence solicited.

* JERSEYS * BY AUCTION



THE FIRST ANNUAL SPRING SALE
OF

JERSEYS

WILL BE HELD AT OUR FARM

OAKLANDS

—ON—

Wednesday, April 25th,

At 11 o'clock a. m.

THE SALE WILL INCLUDE

- COWS IN MILK,
- HEIFERS IN MILK,
- YEARLING HEIFERS,
- HEIFER CALVES,
- THREE-YEAR-OLD BULL,
- BULL CALVES.

All registered in the American Jersey Cattle Club Register. Among them will be pure St. Lambert cows and young bulls, sons and daughters of

CANADA'S JOHN BULL

The best bred and greatest prize-taking bull of the great

ST. LAMBERT FAMILY.

OAKLANDS FARM is 1½ miles from Waterdown station, on the Great Western Division of G. T. R. (Toronto Branch).

Catalogues free on and after 15th April.

V. E. & H. H. FULLER,

HAMILTON, ONT.

— AUCTION SALE —

I will sell by public auction,

ON WEDNESDAY, 18th APRIL, 1888,

at my farm in the Township of STAMFORD, (2½ miles west of Niagara Falls, G. T. R. depot,) my entire

HERD OF SHORTHORNS

consisting of superior stock bull "THE BACHELOR," red roan, rising 2 years, bred by J. & W. B. Watt, Salem, Ont., Seven cows, five heifers, one yearling bull, and four calves. All are of first-class breeding and quality, of Bates and Cruickshank blood, and are registered in the D. S. H. B. Certificates will be furnished for each. Sale at one o'clock p. m.

If the day prove stormy, stock will be sold under cover.

TERMS—6 months, on approved joint notes, with interest.

For further information apply to

HUGH MITCHELL, South End, Ont.

VALUABLE STOCK FARM

—FOR SALE—

ONE and a half miles from Morris, county seat, a town of 1500 inhabitants. Morris has three railroads, good schools and churches, two banks, and it is a good shipping point for stock and grain. Farm consists of 600 acres—200 acres plowed ready for crop, 200 acres in tame grasses, 15 acres timber, balance natural meadow and pasture. Well watered. Large modern barns, accommodating 180 head of cattle and horses. Handsome dwelling on bank of beautiful lake.

Farm house and all necessary buildings for first-class farm. Farm is highly improved, well fenced and drained. Stock and machinery sold with farm if desired. Price reasonable and terms easy. For further information apply to

LEWIS H. STANTON, MORRIS, MINNESOTA.

JAMES HUNTER, ALMA, ONT.

Importer and Breeder of

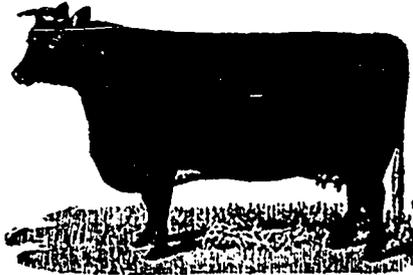


**SHORTHORN CATTLE,
CLYDESDALE HORSES,
AND SHROPSHIRE DOWN SHEEP.**

Stock of both sexes for sale.

FRANK R. SHORE & BROS.

R. R. STATION, LONDON. P. O., WHITE OAK.

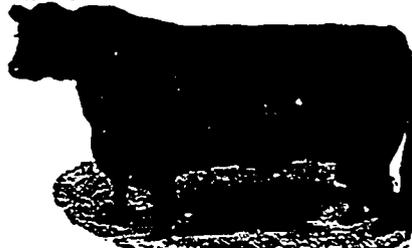


—BREDDED OF—

SHORTHORNS AND SHROPSHIRE

Have a grand lot of bull calves sired by our imp. Cruickshank bull Vermillion (50587), and a very choice lot of heifers, now in calf to Vermillion; also shearing rams and ram lambs from imp. sire and dams. Prices moderate. Terms easy.

100 PURE-BRED ABERDEEN-ANGUS CATTLE



MOSSON BOYD & CO.,

BIG ISLAND STOCK FARM,

BOBCAYGEON, ONTARIO, CANADA.

Ericas, Prides, Windsors, Victorias, Sybils, Kinnochtry Bluebells, Westertown Roses, Ballindaloch Coquette, 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.

RUGBY FARM



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

—BREEDER OF—

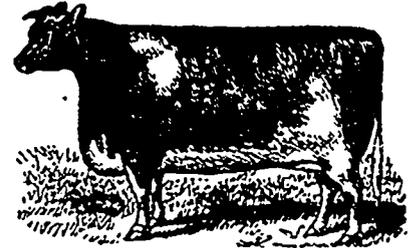
Shorthorn Cattle and Berkshire Hogs

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

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

ARTHUR JOHNSTON,

Greenwood, Ont., Can.



I HAVE now on hand and for sale 20 extra good young home-bred bulls, all by imported sires and mostly out of imported dams, besides an excellent lot of imp'd and home-bred cows and heifers. All for sale.

I expect my recently imported young bulls and heifers home from Quarantine about January 25th, 1888. New catalogue now ready. Send for one. I have also a good lot of imp. CLYDESDALE STALLIONS and MARES for sale.

Claremont Station, C. P. R., and Pickering Station, G. T. R. Parties met at either station on short notice. Come and see them. No business, no harm.

CLAREVILLE STOCK FARM

CAYUGA,

Lying between Canada Southern Railway, Dean's Station; Cayuga Station, Grand Trunk Air Line.

I breed and have

FOR SALE

A-1 Shorthorns,
Baron Constance 10th heads the herd.

Leicester and Cotswold Sheep, Berkshire Pigs,

HEAVY AND LIGHT HORSES OF ALL KINDS.

Young Bulls a specialty. Supply always on hand. Come and See.

J. R. MARTIN, CAYUGA P.O., ONT.

JOHN DRYDEN,

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BREEDER AND IMPORTER OF



Shorthorns,

CLYDESDALES

AND

Shropshire Sheep.

IMPORTATIONS the past season include 225 Shropshire Sheep, and the entire herd of 41 Shorthorns owned by E. Cruickshank, Letheny, Aberdeenshire. The best lot of young bulls ever received at Maple Shade are now offered for sale. Also a few choice cows and heifers.

Inspection invited. Catalogues on application.

THE GLEN STOCK FARM,

Innerkip, Oxford Co., Ont.

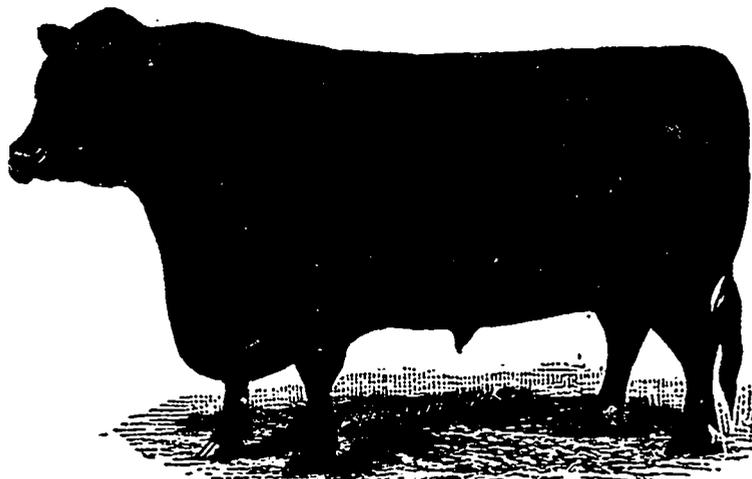
SCOTCH SHORTHORNS,
SHIRE HORSES,
BERKSHIRE PIGS.



Herd headed by imported Earl of Mar (47815), winner of the gold medal at the Grand Dominion and 30th Provincial Show, and numerous other prizes. P. O. and Telegraph Office at Innerkip. Farm is one mile from Innerkip station on the C. P. R. (Ont. div.), and a short distance from Woodstock station on the Canada Pacific and Grand Trunk R. R.

GREEN BROS., THE GLEN, INNERKIP.

CANADIAN HOME OF THE ABERDEEN ANGUS-POLL



Imp. Chivalry. (1765).

The Champion Bull Chivalry (imp.) (1765) 2691 [2]

Winner of First Prizes, Medals, Diplomas and Sweepstakes at Barrie, Collingwood, Ottawa and Toronto. Sire of Miss Charcoal, Mary 3d of Knockiemill, Master Peter of K. P., and the invincible Emma of K. P. S174.

IN wishing our friends and patrons the compliments of the season, we take the opportunity of saying that we are in a position to supply young Bulls of the above excellent breed of cattle at prices within the reach of all, and as to their quality we need only mention that our herd finished this season by taking the medal and diploma, for the fifth year in succession, at the Provincial Exhibition, held in Ottawa. Send post card for our Illustrated Catalogue, and give us a call before investing.

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Aberdeen-Angus and Jersey

HEIFERS, COWS AND YOUNG BULLS FOR SALE

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SHIRE AND CLYDE HORSES.

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All our pigs registered in the English Herd Book.

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Imported and home bred stock for sale. Every pedigree guaranteed. Prices low. Correspondence promptly attended to.

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Sutton West, Ont.

Choice of 50 head of
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Including three yearling bulls, by Butterfly Duke 6th, he by 4th Duke of Clarence of Bow Park fame; all from the best strains, and registered in the Dominion Herd Book. Also young Horses and Pigs. Inspection invited.

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Colonus Stock Farm.

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of the highest breeding and individual merit, and

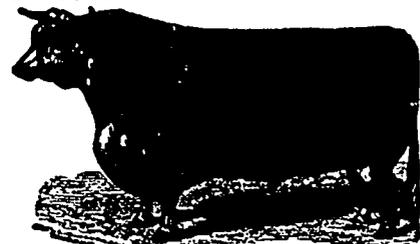
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Young stock for sale of both sexes.

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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. ap-y. G. F. BENSON, Cardinal, Ont.

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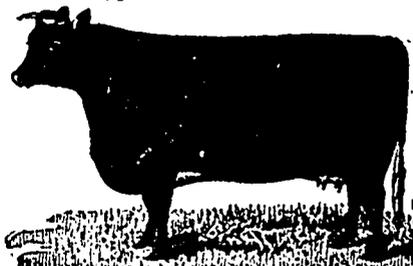
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Have at all times a number of both sexes for sale. Catalogue of young bulls recently issued.

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(2 1/2 miles south from Paris.)



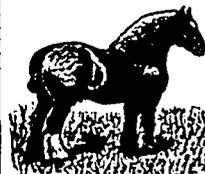
BREEDER of Shorthorn Cattle, all registered in the new Dominion Herd Book. The highly bred Bates bull, 7th Earl of Darlington, bred at Bow Park, at head of herd. The herd is composed of a choice lot of young cows and heifers, all of the ROAN DUCHESS strain. Young stock at all times for sale. Apply to

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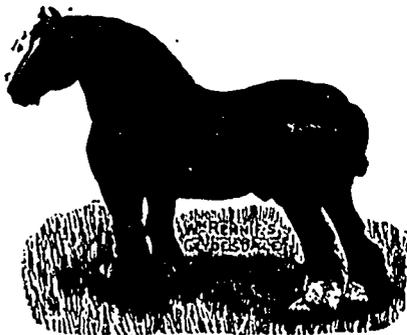


Home of the Provincial Renowned Manfred (1758).

Have on hand for sale, on very reasonable terms, their 1887 importation, consisting of 8 very choice and carefully selected REGISTERED CLYDESDALES

prize winners, of very superior quality, form and finish, consisting of 3 two-year old stallions, 2 one-year-old stallions, 1 four year-old mare, 1 filly two years old, 1 one-year-old filly. Our importation consisted of the get of Lord Erskine, Cairn-brogie Keir, Good Hope (by Darnley), Crown Jewel and other noted sires.

We invite the attention of intending purchasers to the rare individual merit and excellence of our stock. Also two very fine Canadian-bred Stallions, 3 and 4 years old, almost solid colors, sure foal getters.

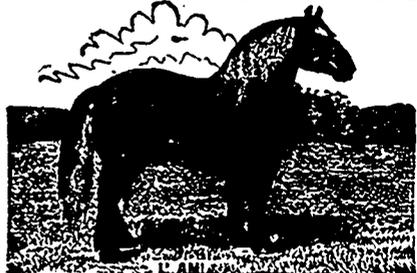


IMPORTED CLYDESDALE HORSES

of superior breeding and quality
FOR SALE AT REASONABLE PRICES
 both Stallions and Mares, from 2 to 4 years of age, all registered in Scotch and Canadian Stud Books, bred from the following noted sires: Darnley (222), Belted Knight (1395), Breadalbane (1978), What-Care-1 (1912), McCannion (3818), Harold (2854), Trademark (3269). Inspection solicited.

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 P. S.—Also SHETLAND PONIES.

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 Importers and breeders of
 Percheron, Belgian Draft, and French Coach Horses.
 We have now over 150 head of imported Percheron stallions and mares on hand. Our importations this year have been selected from the best breeding districts of France. Our Belgian Draft horses are all prize-winners and recorded in Belgium and America. Our stock is all recorded in France and 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.

Imported Clydesdales FOR SALE.

Prices moderate and terms to suit purchasers.
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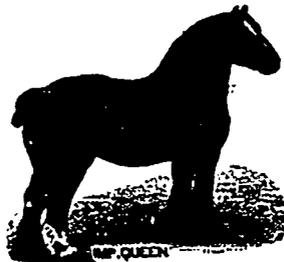
CLYDESDALE Stallions and Fillies

from 1 to 3 years old, and with the exception of three all have been prize winners at leading shows in Scotland. Including gets of the celebrated sires Darnley, St. Lawrence, Lord Hopion, Macgregor, Old Times, Gallant Lad and What-care-1.

Our horses are all selected with the greatest care from the best studs in Scotland. We pay a little more for our choice than those who buy in job lots. Parties wishing to purchase superbly bred animals should inspect our stock.

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

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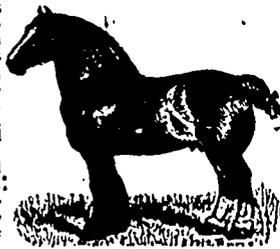


Broeders and Importers of
Clydesdales.

27 registered ones on hand and for sale, including gets of the following sires: Darnley, Lord Lyon, What-Care-1, Macgregor, Belted Knight, Goldenberry, Corsewall, Top Gallant and Prince Charlie; of which 14 are Stallions and Colts, 8 of them our own breeding, which we can sell very cheap; the rest are Mares and Fillies, mostly in foal.

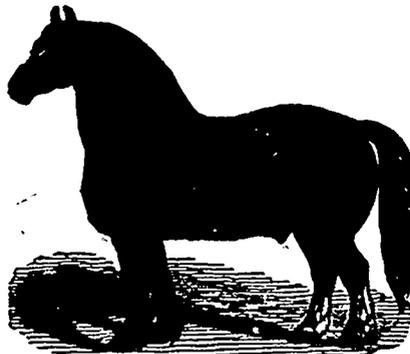
Imported Clydesdales For Sale.

FROM one to four years old, stallions and fillies from the best studs in Scotland, including gets from Macgregor, Harold, Knight of Snowdon, Sovereign, Crown Jewel, McMaster, What-Care-1, Clyde, Scotts, Laird Craford, etc., etc.
 The stock is selected by myself with great care. Parties wishing to purchase would do well to inspect personally before deciding.



Also a few **Shetland Ponies.**
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MORRIS, STONE & WELLINGTON

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

MORRIS, STONE & WELLINGTON, Welland, Ont.

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 MALTON STATION,
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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.
 Prices to suit the times.

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All prize winners. Terms liberal.
G. S. SHAW, Bowmanville, Ont.



J. F. QUIN, V. S., Brampton, Ont. Ridgling horses successfully operated upon. Write for particulars.

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RESIDENCE ONE MILE FROM CLAREMONT STATION.

Importers of Registered

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STALLIONS AND MARES

constantly on hand and

FOR SALE

At reasonable terms.



The importations of 1887 comprise a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (148); Darnley (222), and Prince of Wales (673). Also a few choice **SHETLAND PONIES.**
 Correspondence solicited, and visitors always welcome.

Clydesdales

FOR SALE

Importation of 1887.

Not long arrived, a superior lot of



CLYDESDALE STALLIONS AND MARES

Ranging from one to five years old, including gets of the celebrated Lord Erskine, Belted Knight, Sir Wyndham, Warrior, Goodhope, Lord Kirkhill, Old Times, Pride of Galloway and Macgregor. Prices reasonable. Catalogues furnished on application.

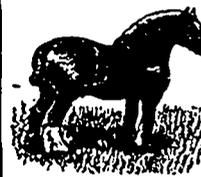
ROBERT BEITH & CO., Bowmanville, Ont.
 237 Bowmanville is on the main line of the G. T. R., 40 miles east of Toronto and 29 1/2 west of Montreal.

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—AND—

SHROPSHIRE.

JOHN MILLER, Brougham, Ont.,



has on hand for sale a large collection of prize-winning animals of the above breeds. The Clydesdales are large and of the best quality. The Shorthorns are of the best Scotch families and of superior individual merit.

Particular attention is called to our Stallions and young Bulls, which will be offered at moderate prices. Terms easy.

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HOLSTEIN-FRIESIAN CATTLE.

Percheron and French Coach Horses

All stock for sale. Prices reasonable. Send for illustrated catalogue of horses.



Visitors always welcome. Examine our stock and prices before purchasing.

OUR herd of Holstein-Friesians, all ages and both sexes, is beyond question one of the finest in the world. Two importations in 1887 of Percheron and French Coach horses, personally selected from the best studs in France, have just arrived in excellent condition. Purchasers consult your best interests by examining this choice selection. They will speak for themselves.
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STANDARD-BRED TROTTERS

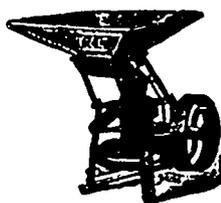
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GEARED WIND MILLS
For Driving Machinery.
Pumping Water, etc.
From 1 to 40 horse power.



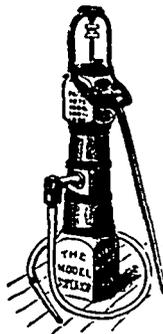
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The Cheapest, Most Durable and Perfect Iron Feed Mill ever Invented.



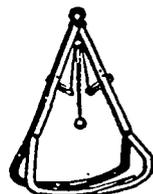
17 Size PUMPING WIND MILLS
from 8 to 30 ft. diameter.



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



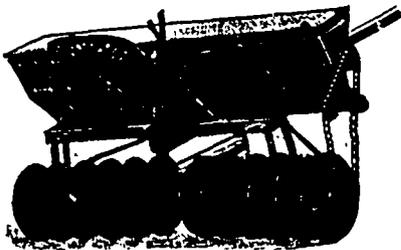
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Both Iron and Wood,
Force and Lift. We will
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any other pump
in the market.



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

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THE CORBIN LEADS THEM ALL.



This shows the Corbin Harrow with the Removable Seeder Attachment. Every Harrow will take it. It sows all kinds of grain broadcast. It is simple, easily managed, and furnished with a perfected drive gear. Read what farmers say about it. The Harrow and Seeder is one of the most profitable machines a farmer can buy. Why? Because it is easy on team; easy on driver; is the most convenient, the most flexible, the most durable, and sows, cultivates and sod-plowing crosswise, does gang plow work, pulverizes and cultivates—doing all work well. *Every farmer should find out about it.* Send for circular. Read what Mr. Thos. Shaw says about it. Read what the highest agricultural authorities say about it.

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Buy a good machine while you are about it, and don't be humbugged into buying a cheap, inferior machine, that will be a constant source of trouble.

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Has finished Bearings, Babbeted Oil Boxes and Weight Box. Every Roller will take a Grass Seeder.

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Has triumphantly stood the test for many years as the **BEST FOOD** for

HORSES, CATTLE, SHEEP, PIGS AND FOWLS

Ever offered to the farming community.

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. \$4.50 per cwt. Special quotations in large lots. If you fail in getting the genuine article, write to

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N.B.—See February and March numbers of JOURNAL for additional testimony regarding its merits.

LIVE STOCK Sale and Purchasing Agency.

JOHN DIMON

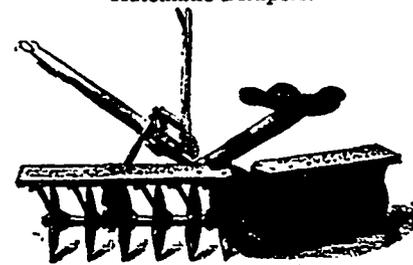
respectfully announces to gentlemen who desire to purchase horses of all classes, and other animals of all kinds, also carriages and harness, that he will receive orders for the transaction of such business for a commission of 10 per cent. Office, 26 Adelaide St (at his stables), Detroit, Mich. He will also attend auction sales, in any State, in the interest of his customers, and he feels that his experience of 38 years in the breeding, purchase and sale of horses, cattle, sheep, etc., and his experience as expert judge on live stock at the leading fairs in the U. S. and Canada, together with his extensive acquaintance with gentlemen, breeders and manufacturers should be of great value to intending purchasers as well as to farmers, breeders and manufacturers who wish to sell. References as to ability and responsibility cheerfully given.

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

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

We specially request any person wanting a harrow to test The New Model in the field alongside of any harrow made. Write for circulars and prices. Agents wanted where we have none.

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Pure Manila, best make. Orders booked now for delivery in June or July. Also

Zebra Spiral Twisted Fence Wire Without Barbs.

Write for circular and prices.

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GENUINE
GARDEN AND FIELD SEEDS
Our Descriptive and Priced Catalogue for Spring is now ready, and will be mailed **FREE TO ALL** applicants, and to customers of last year without solicitation. **Market Gardeners** will find it to their advantage to sow our Seeds.
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Good for Wheat, Buckwheat, Cabbage, Rye, Millet, Onions, Oats, Barley, Potatoes, Corn, Peas, Beans, Tomatoes, Turnips, Carrots, Hops, etc., etc.

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Good for all kinds of Grain and Root Crops

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FIRST-CLASS NURSERY STOCK

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