

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

VOL. XXXVII.

WINNIPEG.

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AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

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Vol. XXXVII.

WINNIPEG, MANITOBA, FEBRUARY 5, 1902.

No. 543

A Step in Advance.

A meeting was held in Winnipeg recently which was fraught with considerable importance to Manitoba's agricultural interests. The executive of the Horse Breeders', Pure-bred Cattle Breeders', Sheep and Swine Breeders', Poultry and Dairy Associations met to discuss a proposition, which was that the secretarial work of these associations and the superintendence of farmers' institute work be placed in the hands of one man. As was to be expected with such an important move, the meeting differed in their views as to the necessity of such an appointment and the duties of the appointee. Regarding the secretarial work, no question could be raised as to the benefit to be derived from putting the work into the hands of one person, the whole of whose time would be devoted to the advancement of the live-stock and agricultural interests of the Province.

In the matter of institute and agricultural society work, a superintendent is seriously needed. The Minister of Agriculture in Manitoba, in addition to that important portfolio, is required to discharge the exacting and multifarious duties of Railway Commissioner, Minister of Immigration, Chairman of the Council, and Premier. No matter what he may desire to do, as an unavoidable consequence under such conditions, the most important profession of this country suffers. Everyone who knows anything at all regarding the farmers' institutes of the Province, knows that institute work is in a dormant state, that the meetings are poorly attended, that there is little interest shown, and that the people who should be reached by this method of agricultural education are not. In this connection, the interests of the live-stock associations can be greatly helped through the institute work. The work of the associations, the institutes and the agricultural societies is so closely allied that the live-stock associations should make it their business to see that the institutes are placed on a better footing. Although live stock is of inestimable importance in any system of agriculture that is to be permanently successful, little has been done to further the cause of live-stock improvement through the institutes. The time has come when results must be got for the public moneys expended, or the organization or department receiving it should be cut out of the list of public beneficiaries. Along this line the working of the individual agricultural societies would bear inspection, and the institution of a system of selected expert judges would be a commendable innovation and greatly appreciated by fair managers. It will thus be readily seen that there is plenty of work for a first-class man who can get out among the workers in connection with these various organizations. The appointment of a man to look after the work indicated above should relieve the Minister of Agriculture and enhance the value of that department, more especially along educational lines. More depends on the man selected than may appear at first sight. Secretarial or clerical ability is not sufficient qualification for the position. The need is for a man well acquainted with the Province and its requirements, a judge of men, with lots of backbone and foresight. On the selection of the man depends whether the appointment means success or failure, and in that connection none of the associations should permit the foisting on to the Government or the associations of an incompetent, or a man not in touch with the agricultural interests of the Province. The "Advocate" is heartily in accord with the appointment of a man for this work, but insists that the importance of the position warrants the selection of the best possible man.

The Stallion Business.

At the present time abundant opportunities are being offered to private individuals or companies (syndicates) of farmers to become possessed of good draft and light stallions. The amount of money involved in the investment, and the scanty encouragement received from one's neighbors, often deters a farmer from investing in a first-class horse. Collections of stud fees are hard to make, people do not return mares regularly during the season, and often abuse the mares and thus militate against their chances of raising living foals. The company system in many cases works well. For example, we cite the Bradwardine Stock Company, which owns the Clydesdale Montauk. One of the essentials to be observed in starting a syndicate is to have one or two good judges in the company of the class of stallion required, and send them to select a horse. The other way of bringing a stallion to a district and then picking up the company does not give the syndicate any selection; on the other hand, all the probable members get a chance to see the stallion. In any case, the syndicate method opens the way for one man of the outfit to make a pull at the expense of his brother (!) farmers. The ideal way is undoubtedly private ownership and the avoidance of travelling of the stallion. Fees are hard to fix; about \$1.00 for every hundred invested will be found to be not very far astray. The one weak point of the company system is to get a reliable person to take care of the stallion. The Bradwardine people have hitherto had one member of the company look after the horse and do the collecting, for which he was paid \$200 a year. In the company system a higher price is always paid for the stallion than by a private person. A company can only be successful if made up of farmers who are business men of unquestioned financial standing, and whose opinions carry weight in the community in which they live. An aggregation of such men owning a good sure horse will be able to command such patronage as to make the venture a profitable one. The stallion-patronizing community cannot expect to get the services of a good stallion, whose colts will sell well, for nothing. Five dollars difference in stallion fees between a mongrel and a well-bred, well-built stallion often means a difference of fifty to one hundred dollars or more in favor of the progeny of the well-bred horse at maturity, yet both colts cost the same to raise to the selling or working age. The motto of all breeders should be, "The best is none too good!"

The Farmer's Workbench.

The farmer of to-day needs to be something of a carpenter as well as a tiller of the soil. A workbench is essential, and also a set of good tools, which need not be costly. The following list of tools will be found to be ample, and yet contains only those essential to good and quick work: Hammer, crosscut saw (8 teeth to the inch), rip saw (6 teeth to the inch), steel square, chisels (2, 1, 1/2, and 1 inch), brace and bits (2, 1, 1/2), keyhole saw, try-square, pair of dividers, gauge, jack-plane, fore-plane, smooth-plane, draw-knife, hand-axe, oilstone, and bevel-square. The entire outfit can be purchased at a hardware store for \$10. A well-equipped workshop means many an hour or trip to town saved when breakages occur. Once the outfit is secured, it should be put into a place of its own, and whenever tools are removed for any purpose they should be restored to their places as soon as the work is done. Little benefit will result from tools allowed to lie around anywhere.

Farm Siftings.

The address of Wm. Martin to the Winnipeg Grain Exchange was fraught with meaning to Western farmers. Flax is held up as a profitable crop, which it surely is, both to sell and to feed on the farm. Skim milk plus ground flax makes a good combination for calf-raising. His prediction regarding the westward march of corn is reassuring, and it is to be hoped will prove true.

Those of us who have to depend on coal oil for light, find it a pretty hard matter to get enough light these days, the quality of the oil is so poor. Coal oil should be free on the list, and be of a certain standard.

During the sharp winter days the bits should be breathed upon or put in cold water before placing in the horse's mouths, and thus get the frost out of the iron. It is easy to try an experiment showing the need of the above. Let any reader put his tongue to a frosty bit, and if at all humane, he will follow the suggestion ever afterwards.

Now is the time to get out the summer's wood and begin to figure on fencing and new seeds. Spelt and flax should be placed on your list for the coming season.

One reason stated why scrub bulls or stallions should not be allowed to run at large, is that a first impregnation affects subsequent ones. If that is so, a point on which the scientists differ, all scrub males should be altered forthwith.

A farmer friend made the statement that he much preferred a hired man who was a reader. He said that the chatterbox was a nuisance, invariably talking when "it wasn't his put in!" A hired man who studies the "Farmer's Advocate" diligently would be worth far more as an employee than one who does not.

Every farmer should try to attend the live-stock conventions in Winnipeg during the Bonspiel week, Feb. 17-21. It is not every day that such instruction can be had at such a low cost of time and money.

How to Know Beef.

In these days of fat stock shows, slaughter tests, experimental feeding by agricultural colleges, balanced rations, meat inspection, and well-bred beef stock, one would expect that housekeepers and epicures would have no difficulty in getting what they want. To-day, however, the butcher's shop is the battleground as of yore — there is the bone of contention found. Why? Because, so the butchers say, "the cooks do not know how to cook beef," or else "the farmers will persist in using miserable scrub bulls, and do not go to the meat tub often enough." There is no doubt that lots of purchasers are ignorant as to where the good cuts are to be found, and also ignorant as to the appearance of good beef.

Prime steer beef is a bright cherry red, the lean meat is smooth and medium grained, with white flecks of white through it; the fat creamy, neither white nor yellow; the lean generally much mottled with white fat flecks. Beef from cattle in whom the fattening is unfinished is generally tough, juiceless, and pale in color. The beef obtained from old or ill-conditioned cattle is of a dull red color, the lean being too grained and sinewy, and the fat yellow in color. Bull beef is a dark red, the lean is coarse grained and sinewy, the fat being white and fibrous. Cheap beef is a dull red in color, the lean rather thin grained, and the fat yellow. You will do

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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AND N.-W. T.

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1. THE FARMER'S ADVOCATE is published on the fifth and twentieth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
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Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
WINNIPEG, MANITOBA.

Fall Wheat in Alberta.

Thinking some of the readers of the "Farmer's Advocate" would like to hear of the success of fall-wheat growing in Southern Alberta, and as it has been mentioned several times in the "Advocate," I contribute the following, that the great success of the fall-wheat crop may be better known and understood:

Having lived some thirty years in one of the best fall-wheat counties in Ontario, and fall wheat being one of our main crops, I have had a good deal of experience in growing and cultivating this important cereal. I came to the Pincher Creek district with the expressed intention of seeing for myself what success fall-wheat growers were meeting with, and after having seen the crops of 1900 and 1901 threshed, I am pleased to state I never saw such splendid crops, yielding from 40 to 60 bushels of fine plump grain per acre, and under what we in Ontario would call very poor cultivation. One piece, containing six acres, I watched with particular interest, as it was situated in one of the most exposed places in the district, with no shelter except a barb-wire fence.

The land was broken in June, 1900, and wheat sown on 20th of July of same year, and was very poorly cultivated, but it yielded 47 bushels of fine wheat per acre.

Had this piece of land been broken the year before and backset, the yield would have been much heavier.

At the present time of writing, January 16th, many fine pieces of wheat can be seen as fresh and green as the same crop would be in Ontario in November, although it has not had a particle of snow to protect it: the climate and soil being admirably adapted to its growth, the soil never heaving nor the wheat icing over, which are the main causes of failure in Ontario. I might add that fall wheat has been grown for eight or nine years in succession by one party without a single failure, and at no distant day the Pincher Creek district will be as noted for its millions of bushels of fall wheat as it has been in the past for its large production of prime beef cattle.

Pincher Creek, Alta. FARMER.

Manitoba Veterinary Medical Association.

The annual meeting of the above Association will be held in Winnipeg on Feb. 19, during the second week of the bonspiel. Several interesting papers will be presented, and the reunion of veterinarians promises to be an enjoyable one. As the American Veterinary Association will hold their annual meeting in Minneapolis next September, it might be possible for the Manitoba men to get a cheap rate on the railroads and take their wives to the educational and social gathering at the Flour City.

Training a Collie.

You can no more make a good farm dog out of a mongrel brute than you can "make a silk purse o'ot of a soo's lug." You can get a mongrel to hunt cattle while it is fun for him, but when it comes to work, he will step aside in your favor, as he does not want to work. Almost any kind of dog with a dash of collie blood in him can be trained to drive and herd cattle, but I have always found them to be useless for anything like work. You cannot force them, and after a short time cannot coax them either. The only exception to this I know of is a cross between the collie and the old Highland staghound, which make the best of sheep dogs, often superior to the pure-bred collie. I imagine our best sables are not free from the influence of that cross.

Now for a few hints on raising the puppy. Where possible, keep him, in his puppyhood, away from stock and from being made a plaything of by children, as you will find it easier to teach him ten new things than to break him of one habit once it is contracted. At from 10 to 12 months old is soon enough to begin his education. Make him used to lead on a string, as it may come in useful afterwards. Next teach him to come to heel and stay there. He is now ready for a run after the cattle or sheep, as the case may be; as a rule, they do enjoy a chase round them. After he has "let some steam off," call him to heel. Then start him off again, say on the right-hand side; make a motion with that hand at the same time. It is well to choose a set of words or orders, and having chosen, stick to them, as the dog has to learn to connect



"READY!"
Evan McIvor and his collie "Bell."

a certain sound with a certain action. Remember that is the main point in training a dog successfully. When he has gone half way round on the right side call him back; repeat the lesson two or three times, and then give similar lessons on the other side. With sheep it is best to let the pupil run right round, as in stopping him half way he is apt to come too close in on them.

For the next lesson have him run from right to left, passing without stopping behind the cattle and in front of you; with sheep, always behind you, as you want him to run wide with sheep, which is not necessary with cattle. Next get him to pass behind cattle, stopping him when nearly up to you and sending back again, keeping this up until the stock are moving towards you. In a few days you will be able to send him for cattle some distance off. In starting out, make a motion with the hand and issue an order to keep well out from the animals until he gets well behind them, then get him back on his former lessons. He will soon learn to bring cattle towards you. It takes a lot of time and patience even with the easiest-trained dogs before you can give them a diploma. Do not be discouraged if he won't even look at the herd when you begin his training. Some of the best working dogs I have known seemed quite hopeless cases at first. One I may mention, as an encouragement to any person who may have a hard one to start, was nearly two years old, and although nearly every day out with the sheep, could not be induced to go after them. One day, in slipping some sheep on board steamer, it was hard to get the first one on, as is usual in such cases. No sooner, however, had the first few jumped on board than the dog jumped on too, as if to prevent them going overboard on opposite side. When they got to land and the sheep were running down the gangway, the dog was about

the first to land and went to work rounding them up in fine style. An hour later, by the time they were in the sales-yard pens, he was a good dog. The same dog, shortly afterwards, was left on the road, on market night, twenty miles from home, with a mixed flock of black-faced sheep. He was home by morning, with not a sheep missing.

If you have to punish a dog (and the least done in that line the better), be sure you have a secure hold of him and do not allow him to get away from you for some time after. If he is of a shy, nervous temperament, you must be very careful with him—you must get his confidence first before you can do anything with him. If carefully handled, they make very nice working dogs, and as a rule are trustworthy.

The easiest dog for an amateur to handle is the bold, courageous, won't-take-offence kind of dog. A good whack now and then just seems to suit some of them; at least, it does not spoil them much. Of course, you will have your dog trained to whistle calls, such as one long one "down," one long whistle, following with a short one "come to heel," a series of short, sharp notes meaning "hurry up," etc. I always think that puppies from trained parents are somehow easier trained, but would not like to give it as a fact.

By following the foregoing hints, and remembering that the well-bred collie, like his master, is always, to the end of the chapter, learning something, any person having the right material to begin with cannot fail in having a great and invaluable help in handling stock at the price of his board.

Where there are plenty of kitchen scraps, dogs do well on it. I feed mine on wheat chop run twice through the chopper, boiled into a porridge, with some milk or fat on it; a turnip boiled and mashed up with it once a week or so is beneficial. Dogs, like mostly all other animals, seem to do all right in Manitoba if they get plenty of feed.

EVAN McIVOR.

Sifton Municipality, Man.

Last Call for the Conventions.

A few changes will be noted in the programme of the live-stock conventions which are to be held in Winnipeg on Feb. 18, 19, 20. Prof. Curtiss, as has been announced, takes charge of the demonstration of beef cattle. Prof. Carlyle has found it impossible, owing to stress of work at the Wisconsin Agricultural College, to be present.

Prof. Jno. J. Ferguson, of the Michigan Agricultural College, has been secured to take the work of judging swine and dairy cattle, and will deliver addresses on kindred subjects. Prof. Ferguson is a Canadian, a graduate of the O. A. C., and a successful breeder of pure-bred swine, and for the past two years has been instructor in animal husbandry and dairying at the Michigan Agricultural College. A number of local breeders will also contribute. It is expected that Dr. Curryer, of the Minnesota Farmers' Institute staff, will be on hand to take horse training, and one of the local veterinarians will probably take up the examination of horses for soundness.

DAIRY ASSOCIATION.

This association has prepared a full programme, which, in addition to papers by local men, will include addresses from Prof. Farrington, the noted head of the Wisconsin Dairy School, whose work as a dairy chemist and as author of testing milk, together with his invention of an alkaline test, has made him one of the shining lights of the dairy world. W. A. Wilson, Dominion Superintendent of Dairying for Assiniboia and Saskatchewan, will contribute a paper on "The making of high-class butter." J. E. Hopkins, for some time in charge of the Moose Jaw creamery, and travelling dairy expert in British Columbia, is to talk on "The dairy cow and supply of milk in the West."

THE HORTICULTURAL SOCIETY.

In addition to the speakers mentioned in our issue of Jan. 20th, Prof. Macoun, Horticulturist of the C. E. F., Ottawa, will deliver two addresses: "What the experimental farms are doing for horticulture," and "Dairying for profit." Don't forget the judging of grains and vegetables by Supt. S. A. Bedford, which takes place at the afternoon session.

THE POULTRY SHOW.

The annual show of the M. P. A. will be held in Winnipeg during convention week, Feb. 17-21, which promises to be more successful than ever. An innovation is the addition of a cat show. Besides local exhibits, Mrs. Beson, of St. Paul, is to exhibit a carload of cats. Judge Holden, of St. Paul, will place the awards on all classes of poultry, and will speak at the public meeting. Prof. A. G. Gilbert, of the C. E. F., Ottawa, will give several talks and demonstrations on "The cranning of poultry" and "Dressed poultry for the market."

A wide-awake American exchange says: "Go slow on hedge plants; but 'twill do no harm to go fast for the sellers of them."

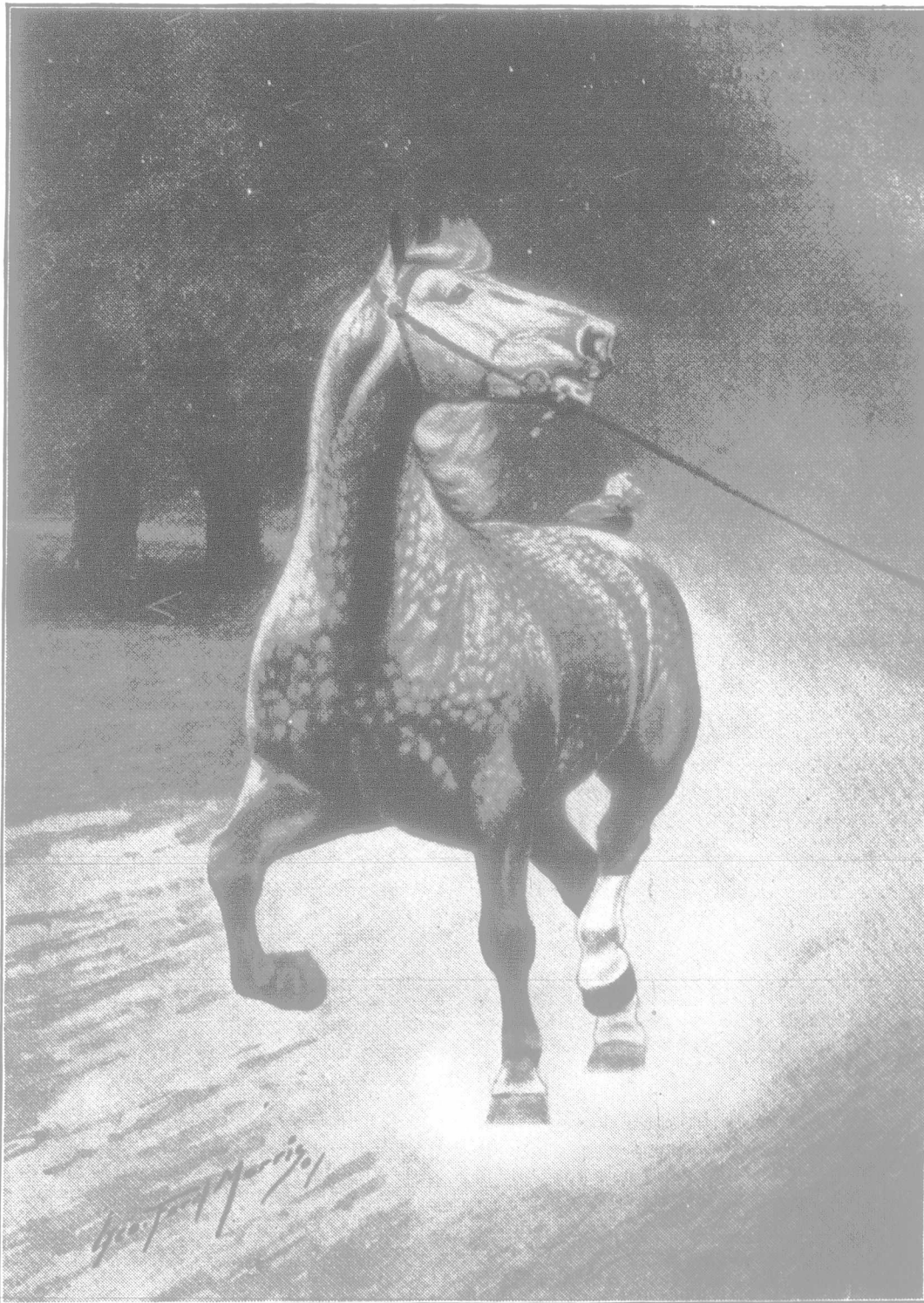
Dual Purpose Cows.

Considerable discussion has taken place in late years on the question of the possibility of breeding a class of cattle that will make first-class beef animals if fed for that purpose, and the females of which will make profitable dairy cows when used in that capacity. While it is scarcely reasonable to contend that cows of this class as a rule can be developed into the highest type of dairy producers or can be made to average as high in that regard as those of special dairy breeds whose breeding and training has been entirely in that direction, yet observation, experience and the records of milking and buttermaking tests have given ample evidence of the possibility of combining the two qualities, beef making and milk production, in a high degree in a cow that for the average farmer is perhaps more profitable than any other. The general farmer, who is not so situated or disposed as to make dairying a specialty, wants a class of cows that will give profitable returns at the pail and whose calves, raised on skim milk and fairly well cared for, will grow into beef animals that can be fed off at two and a half years old, weighing from 1,200 pounds to 1,400 pounds and showing smoothness of form and thickness of flesh fitting them for the export trade or the best markets available. And we are fully persuaded that by reasonably good management this result may be profitably and satisfactorily accomplished. There is ample room for the exercise of good judgment and good management in the feeding of calves during the first few months of their lives so as to raise them cheaply, or at least economically, and yet to give them such a good start in life as will, with fair after-treatment, ensure a profitable animal. There is often much loss in overfeeding with milk or feeding it cold to calves, causing indigestion and scours and thus weakening the constitution at the start. It is surprising on how small a quantity of milk a calf can be well raised if it is fed often, three times a day for the first month; new milk the first two weeks; and the milk always sweet and warm. Before the calf is a month old, as a rule, it can be taught to eat a little good hay and whole oats or chopped oats and bran by putting some into the mouth occasionally, and when it has once learned to eat there is little danger of a setback if its quarters are kept clean and well bedded.

It is true that as a rule the beef breeds are bred and managed with the sole object of developing their beefing qualities, without any regard to their milking propensities, the calves being kept as fat as the whole milk of their dams, supplemented by fattening meal rations, will make them, and kept closely confined the first year, a course of treatment that would quickly lower the milking tendency in even the special dairy breeds. Heifers so pampered in their first year are entirely unfitted to find for themselves when turned to pasture, being weak in bone and muscle, and cannot make as useful mothers as if they had been kept in only good thrifty growing condition and had been allowed ample exercise when young. While this hothouse treatment may be necessary in order to produce prizewinners, it is certainly a mistake to treat heifers that are not intended for show purposes in this unnatural way. And even the show animals would be vastly better in every way if given a reasonable amount of exercise. As a rule, the best milking cows in a herd of pure-breeds of the beef breeds are the best breeders. The milking propensity has a tendency to produce and maintain the feminine or cowy appearance we all admire, and a deep-milking cow gives her calf the best start in life, a start that may, with good management, be kept going on without check, producing the most desirable type of animal at maturity. To our mind, it would be well if most of the heifer calves in pure-bred herds were raised by hand, and if this were done in the case of those from good milking dams, the cows might give a good account of themselves in the dairy. However this idea may strike the breeders of pure-breeds, there can be no question that the general farmer who prefers grades of the beef breeds can improve their milking qualities and make them profitable in the way we have indicated.

In this connection we commend to the attention of breeders the sentiments embodied in the following extract from an article recently published in the Live Stock Report of Chicago, a paper devoted principally to the handling of beef cattle:

"The characteristics of a modern beef animal of superior excellence can better be obtained in conjunction with milk than without it. The fact is now recognized and accepted by some of the foremost breeders of Great Britain. The proprietor of one of the herds of Scotch Shorthorns that is at the present time in greatest favor in America, and one that has been most largely drawn on to maintain the excellence of our herds, pursues precisely this policy. This is not an isolated case. The cultivation of good milking qualities in the British beef herds is the rule and not the exception. If it were the rule here there



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THE PERCHERON STALLION CHAMBELLAN 27849 (46787).

Winner of first prize for stallion four years old and over at International Live-Stock Exposition, Chicago, December, 1901. Winner of first prize at the Show of the Societe Hippique Percheronne, Nogent, 1901. Winner of first prize at the Government Show, Vendome, 1901. Imported by Dunham, Fletcher & Coleman, Oaklawn Farm, Wayne, Du Page County, Illinois.

might be less occasion to import so frequently and so extensively.

"Suppressing milk secretion tends to weaken fecundity and thereby to shorten the reproductive period of the breeding animal. The best milkers are almost invariably the best breeders in the herd. The shy breeders are rarely if ever found among the heavy milkers. Cows that do not milk well seldom breed regularly until an advanced age is reached, and what calves they raise will be stunted unless provided with a nurse cow.

"The most important reason for combining milking quality with beef, however, is rarely considered at all. It is a prime factor in maintaining smoothness and quality. To suppress milk is to curtail fecundity or breeding quality, and to curtail or check breeding quality tends to unsex the animal, and as a direct result the females become coarse and masculine. They not only tend to become coarse and masculine in appearance, but coarse in substance and texture. The scant milker becomes a shy breeder and grows gaudy and uneven in her flesh. It is a rare exception to find a Shorthorn that will carry its flesh smoothly and evenly to maturity unless descended from good milking ancestry. The beef cow that gives a good flow of milk may be repeatedly fitted in high condition and reduced, and remain smooth, but not so with the dry cow. In the early days of the breed, when it was the rule to grow large, gaudy bullocks for the block, coarse, patchy carcasses were tolerated, but they are no longer wanted. The killer and the consumer severely discriminate against them. The compact, tidy bullock now demanded must be thick-fleshed, smooth and even and of superior quality throughout. A good flow of milk in the dam is conducive to this standard in the butcher's bullock and in the breeding bull; and the absence of it is detrimental."

The Farmer King.

Under the heading, "The King at the Cattle Show," the London (Eng.) Spectator of December 14th gave a graphic account of the visit of His Majesty to the recent exhibition of the Smithfield Club. It was remarked that: "The hereditary patron, adviser, chief competitor, and most famous stock-breeder of this closely-united and self-respecting body is the King himself. His Majesty has not only inherited the famous herds and flocks of Queen Victoria, but has for years been among the first of all breeders of certain kinds of stock. He has taken seriously to the business for very many years at Sandringham, and on a scale which very few private persons can emulate. He now has establishments, any one of which would be considered of the first quality, in Scotland at Abergeldie, in Norfolk, and at Windsor. At this show the combination was irresistible. His Majesty exhibited more animals and won more prizes than anyone else. Even if he had not, his support and encouragement of those who are doing their duty by the land and its people would have been just as hearty." In conclusion, our contemporary remarks: "Some of our readers may be a little surprised at the importance attached to the Smithfield Show, but, in truth, the pride and satisfaction felt in the show are perfectly genuine, for, in spite of our inability to make farming pay, every Englishman has a touch of the farmer somewhere in his composition. It is thus most natural that the King's very real interest in the show should add to his popularity. When he goes to the show he is visibly and directly sharing the chief enthusiasm of a very large portion of the nation."

An Agricultural College Manitoba's Great Standard of Excellence for Clydesdale or Shire Stallion.

A Manitoba Student at the Ontario Agricultural College Gives Valuable Testimony.

To the Editor, "Farmer's Advocate":

The much-talked-of and much-needed agricultural college for the West is beginning to present a more promising aspect. The people of the Province realize the necessity of an agricultural education. Farmers are beginning to see the practical application of the science of agriculture and other studies associated with it in an agricultural college curriculum, and are showing their desire for an agricultural school. This is, no doubt, very largely due to the influence of your valuable paper, which has placed the matter before its large number of readers in such a clear and persuasive manner. I refer especially to the articles in your issues of October 21st and November 5th, 1901, which give an outline of a college course suited to the needs of the West.

The outlay necessary to start an agricultural college, and our small Provincial revenue, make it a hard problem to solve. The expenditure must necessarily be kept at a minimum, and yet the institution must be made effective. The plan outlined in your issue of October 21st meets these requirements to quite an extent. The course of studies suggested is very comprehensive, and includes the studies more closely associated with agriculture. The study of English literature and composition, in conjunction with these, makes a very complete course for an agriculturist. Students should have a good public-school education before entering for the course, as they can get that much cheaper at a home school. The staff and equipment provided for is ample for a beginning. The estimated cost is moderate.

The necessity of an agricultural college for Manitoba is too evident to need proof. Agriculture, in its various branches, is practically the sole industry of our Province. We cannot look for much development in other industries which are co-equal with the agricultural industry in the other provinces of the Dominion. The other provinces have other important industries, as manufacturing, lumbering, mining and shipping. We have but the one industry to rely on, but we should lead the Dominion in this. Our country has facilities which will enable us to lead if we take advantage of them. Competition is so keen in these advanced times that to keep any industry to the front requires knowledge and systematic management. This, in agriculture, is immensely aided by an agricultural college, and if we hope for success we must keep up with our competitors in this line. Ontario, and nearly every other State to the south of us, have each their agricultural college, and in every case they have proved valuable institutions to the State or Province at large. The question of an agricultural college is, then, not only of importance to the farmer, but also to the Province as a whole. I cannot say what the Province can afford in this line, but a start should be made, however small.

It is gratifying to see the effect of the press, especially the "Advocate," in impressing the farmers with this need, and also in influencing the Government to take a step in this direction.

The objection has been raised by some that the farmers are not ready for a college, and would be slow to patronize it, even if it were started. This is a mistaken idea. The average boy of today has a desire for an education in whatever occupation he undertakes. In the absence of an agricultural college in the Province, many are attracted to the other colleges, where the professional element is strong, and are usually educated away from the farm. It is not a little inspiration that is given to one among a body of his fellows who have a common aim and ambition with him. In this way the college becomes a strength to the agricultural calling.

The attendance at a college of this kind would be greatly increased if nature study received more attention in our public schools. The public school programme is crowded as it is, but a little time should be spent in nature study as practiced in England and the States and as outlined in your issue of October 21. Prof. Lochhead has said: "The primary object of nature study is to cultivate the child's power of observation, and to put him in sympathy with outdoor life." It would give the pupil an idea of what is to be learned in agriculture, and arouse his interest in the study and the work of the farm. An agricultural college, with nature study in the public schools, would be a great aid in agricultural advancement, and would attract many boys to agricultural pursuits who would otherwise be led to professional or business life.

O. A. C.

C. L. STRACHAN.

HEAD.—Ear of medium size and pointed; Cranium nicely rounded; Forehead broad and flat; Eye full, prominent and mild; Nasal bones straight; Nostrils large, firm and flexible; Muzzle rather small; Mouth of medium depth; Lips compact; Muscles of Cheeks well developed and prominent; Jaw rather broad, with branches of lower jaw wide apart at the angles..... 4

NECK.—Of medium length, deep and full where it joins the body, being continuous with the withers without any line of demarcation; Crest well developed, well arched, broad and strong, but not so heavy as to turn to either side; the whole neck to be well and prominently muscled, surmounted by a good full mane of hair of good quality, and attached to the head in a graceful manner, not too thick and heavy at the throat; the general appearance of the head and neck to be strongly masculine..... 5

WITHERS AND BACK.—Withers in line with the posterior part of the upper border of the neck, tolerably high, rather broad and well muscled; Back straight and rather short; Loins broad, strong and well muscled..... 8

CROUP.—Rather long, well and prominently muscled, not too drooping; Dock coming out fairly well up, well clothed with straight and not too coarse hair, and well carried..... 4

CHEST.—Ribs long and well sprung, with well-marked angles; False Ribs long; deep through the Girth; Breast broad and well muscled..... 8

SHOULDER.—Moderately oblique from above downwards and forwards and heavily muscled, the muscles covering the Blade thoroughly developed and prominent..... 5

ELBOW.—Strong, muscular and fitting closely to chest..... 2

FOREARM.—Large, strong, well clothed with prominent muscles extending well down limb..... 4

KNEE.—Straight, well developed and strong in all directions..... 5

KNEE TO FOOT.—Cannon Bone rather short, broad, strong and flat, with an absence of beefiness; Ligament and Tendons well developed and not too much tied in below the knee; Skin lying close to bone and tendon; the Posterior Border of the limb to be well feathered with a moderate quantity of straight, silky hair, especially in the region of the fetlocks (wavy, woolly or coarse hair very objectionable); Fetlock Joint large and strong; Pasterns rather short, strong and of moderate obliquity..... 10

FOOT.—Of medium size, rather round, with good, strong and moderately deep wall; Sole rather concave; Frog well developed and strong; Heels broad and strong and not too deep; there must be an absence of any appearance of hardening or thickening of the lateral cartilages; must not turn toes either inwards or outwards when standing; must stand straight, with feet firmly planted, not too wide apart nor yet very close together; Feet must be of equal size..... 10

HAUNCH.—Strong and heavily muscled, thick through ham; Quarters broad and strong..... 4

STIFLE.—Compact, strong and well muscled..... 2

GASKIN.—Muscles strong and prominent and extending well down the limb; Bone large and substantial; Hamstring prominent and strong..... 4

HOCK.—Large, strong and well developed in all directions, an absence of coarseness and puffiness; Point well developed and posterior border straight; must stand with hocks fairly well together and straight..... 5

HOCK TO FOOT.—Cannon Bone broad, flat, strong and rather short; Ligament and tendons well developed and strong; not pinched in below the hock; an absence of beefiness; Skin lying close to bone and tendon; Limb must be well feathered on the posterior border with a reasonable quantity of hair of good quality, the same as the fore limb; Fetlock joint large and strong; Pasterns rather short and moderately oblique..... 10

FOOT.—Smaller, narrower and more concave in the sole than the fore foot; Wall strong and moderately deep; Frog well developed and strong; Heels broad, strong and not too deep; Feet must be of equal size..... 10

COLOR.—Bay, chestnut, brown, black, gray, with reasonable modifications; reasonable white markings not objectionable..... 3

SKIN.—Soft, mellow and loose, not like parchment..... 4

TEMPERAMENT.—Energetic, docile, not nervous..... 4

STYLE AND ACTION.—General appearance attractive; Movements firm, smart and elastic; must be a good walker, all joints moving freely; Knees and Pasterns and Hocks and Pasterns well flexed, showing the soles of feet plainly; must not roll or paddle with fore feet, but, lifting them smartly from the ground, fetch them forward in straight line and plant them firmly; must not go wide with hocks or hind feet, nor yet close enough with the feet to interfere; in the trot these movements to be carried out in a more marked degree..... 10

WEIGHT.—Say 1,700 lbs. upwards..... 6

HEIGHT.—Say 16 to 17 hands..... 6

SYMMETRY.—All points well proportioned and general conformation massive and graceful..... 10

Perfection.....143

The desirable points in the mare or gelding of these breeds differ from those of the stallion only in the absence of the masculine appearance noticeable in the head, neck and general physiognomy. The head lacks this appearance, which is more easily recognized than described. The neck is not so massive in general, nor the crest so highly developed; the withers not so broad nor so heavily muscled. In temperament there is more docility. The weight is usually less, and the action not so heavy.

Note.—"Whip," in a private note, states his opinion that the best individuals of the two breeds, Clydesdale and Shire, are so nearly identical in character and purpose that one standard fairly applies to both. The standard given is claimed to be original and may be open to criticism, and horse breeders are invited to freely express their views on this subject, or any other horse topic, through the medium of our columns.—Ed. F. A.

Poultry for Boys.

BY W. A. HAMILTON, ALBERTA.

The keeping of the country boy on the farm still remains a practical problem. That giving him, early, a financial interest in the farm or some of its products assists greatly, few doubt. For many a boy the problem would be solved by giving him a breeding pen of pure-bred poultry. Such a gift is not beyond the power of the parent of even slender means. Poultry is cheap, easily secured, readily housed, and at once becomes productive. Small difficulty will be found in keeping account of the value of the food consumed, eggs laid and young stock raised. Hence, thrown on his own resources, the boy may at once face the difficulties and realize the pleasures that come to the stock-raiser.

If he enter into it with zeal, and few boys, either in the village or country, will not, the keeping of poultry will tend to develop many desirable traits in the boy's character. He will be kind to his flock; that kindness will extend to all animals. To care for his flock at stated times will require self-denial, while these regularly-recurring duties will give him fixedness of habit. His birds give returns at once, the boy begins to save, he becomes thrifty. His foresight will be rewarded if he provides green food for winter and makes comfortable the house before the cold weather comes on. Indeed, if "genius be the power of taking infinite pains," then that power will be fostered in the boy, and his pains will be well rewarded by the prolific hen.

But what kind of poultry would you give? That depends on circumstances and the boy. Generally, none will be more suitable than "chickens." A flock of hens will engage the boy's attention the year round. Their care will not conflict with school duties, and the work will neither be over-heavy nor disagreeable. Yes, but what breed should we select? The boy's tastes may assist in deciding, but unless he shows a marked preference for some other breed, you will make no mistake in selecting the Plymouth Rocks or Wyandottes. These birds possess beauty, both of form and plumage. They are quiet, are good all-the-year-round layers, and cannot be excelled as mothers. The chicks mature early, giving a table fowl of superior quality.

While you give the boy pure-bred birds, they need not be exhibition birds, nor in exhibition shape. Indeed, these are not always the best breeders, and besides, the boy would not be able at first to keep them in this condition, and so be discouraged; while with good thrifty stock he could see the birds improve in his hands.

Allow the boy freedom in the management of his flock. Take an intelligent interest in it, and encourage him to run his flock in a businesslike way. Let the profits be his. Start him to read the poultry pages in the farm papers, give him a chance to visit the best flocks in your neighborhood. With your encouragement, there is no reason why the boy should not develop a good flock, bringing him at the same time both pleasure and profit.



A PRAIRIE SCHOONER.

Brandon Experimental Farm Notes.

The following interesting experiment in breeding has been carried on at the farm. A small, rather inferior, grade cow was bred first to a Holstein bull, then to an Ayrshire, and next to a Shorthorn. Each calf was typical in color and general conformation of the breed of the sire. The get of the Holstein was a steer, the other two being heifers. The get of the Ayrshire was named Pansy, and of the Shorthorn, Violet. A two-years' record of these heifers has just been completed, resulting as follows: First calving, Violet milked 191 days, giving an average per day of 5 pounds 10 ounces of milk; Pansy milked 373 days, giving 14 pounds of milk per day. After second calving, Violet milked 155 days, giving 7 pounds per day, while Pansy milked 358 days, with a record of 23 pounds per day.

BULL SERVICE.

A service fee of \$1 is charged for the bulls kept at the farm, and the record for three years for the three bulls kept, 193 cows outside those belonging to the farm and the Indian Industrial School. The Shorthorn served 82, the Guernsey 72, and the Ayrshire 39.

POULTRY.

The poultry, as usual, are in most thrifty condition, and the hens are laying well all winter. Last summer the chickens were taken charge of by Miss Gracie Bedford, the 12-year-old daughter of the Superintendent, and out of a batch of 70 chicks, 68 were raised to maturity. These were mostly Light Brahmas.

GRASSES.

Mr. Bedford reports a very large enquiry respecting grasses and clovers. Of the former, Bromus and native rye grass still hold pride of place, and Mr. Bedford maintains his confidence in the ultimate success of clover-growing, and possibly of alfalfa, a plot of which has been growing on the farm for a number of years.

FALL WHEAT AND RYE.

Several plots of fall rye are under test, grown from both home-grown and imported seed, and one plot of fall wheat of a new variety, called the New Ontario, made a good growth last fall, and seems to be withstanding the winter well in spite of the lack of snow.

CORN.

The corn crop was, as reported some time ago, a very heavy one last year, and besides full silos, a large quantity is still out in stook. The dry fodder corn from the stook is being fed to the horses this winter with most satisfactory results. A corn harvester was used last harvest for the first time, and, although the corn was badly lodged and twisted, it did its work to perfection, picking up the worst lodged stalks and tying it in good bundles, making stooking very easy.

NO SMUT.

A curious feature last year was that there was no smut, even when the smuttiest grain was sown without treatment.

John Clark, Sr., Crowfoot Station, Alta., January 11th, 1902. "I am well pleased with the 'Farmer's Advocate.' I received the Christmas number and it is simply lovely. It alone is worth the year's subscription price, and those who do not subscribe to the 'Advocate' know not what they miss. Wishing you all prosperity in your work."

Two Litters a Year.

It is impossible to make a financial success in hog culture without proper accommodation for the brood sow, as there is no money in keeping a brood sow to raise only one litter a year, for it is just as easy to have two litters if the sow is handled properly and by having the litters come about the first of March and the end of August, and certainly the straw pile will not do for the March litter. There is no animal that gives more rapid return for the money invested than the brood sow, and none that receives less attention.

In the paper I read before the Sheep and Swine Breeders' Association last winter, I recommended the plan upon which my buildings had been erected; that is, in the shape of an "L," the large stock barn standing north and south and the piggery and henhouse east and west, with a large strawstack in the barnyard. So satisfactory had this plan been that when I rebuilt, after the disastrous fire in August last, which destroyed all my farm buildings, I rebuilt on the same site, only on a larger scale. My new stock barn is 38x74; stone basement, 9 feet high; superstructure with 14-foot posts. My piggery and henhouse is 28x60. The piggery is 28x15, containing ten pens 9x12, with a feed passage 3½ feet wide through the center, leading to the hennery, which occupies 15 feet at the east end of the building, and is lighted with four large windows, two facing the east and two the south. In the piggery the north pens are for the young pigs, while the brood sows are kept on the south side, convenient to the strawstack in the barnyard. The walls of the piggery are 12 feet high, 7 feet from the floor to the ceiling. It is a serious mistake making the ceiling any higher, as it is harder to keep the building warm in winter. The

building should be well ventilated and lighted. I ventilate by closing in some of the spaces between the upper joists, and this horizontal ventilation works satisfactorily.

The breed I raise, the Tamworth, which are, I think, the best bacon hog on the market to-day, require a great deal of green feed in summer. For pasture, I have part in permanent grass, and part I sow to rape and barley. For winter feed I use ground oats and barley, with some bran. Occasionally cut turnips for the brood sow. For young pigs, nothing beats shorts, with ground oats and a little bran, soaking it well before feeding.

W. E. BALDWIN.

Pembina Municipality, Man.

The Preservation of Fence Posts.

One of the essentials in the building of a fence is to have good posts, especially at the corners, and on which to hang gates. When about to build a fence, the builder has to consider the material available for the purpose and the lasting properties of the material used. It will be some time, at least in this country, before iron is used for the purpose, hence any help towards rendering the material now used more durable will be appreciated. In this respect, an authority on the matter says: "We have used our last green posts; are using thoroughly-seasoned posts and posts 8 to 14 inches in diameter for corner and gate posts. They were seasoned by standing on end in the sun and rain for a year, and would have been improved by a six-months soaking in water and then dried out. The following process, termed 'kyanizing,' has proved very satisfactory in some hands: Take 1 lb. of blue vitriol (bluestone or copper sulphate), 20 pints of water; dissolve the bluestone in boiling water and add it to the cold water. Place the end of the post in the solution and let it stand for a week or ten days. The following methods have been tried and recommended in Great Britain: A pit is dug as deeply as the posts are to be set in the ground, and large enough to hold the posts set on end. Some fresh quicklime is put in the bottom, and the posts are set on it, more lime being thrown in between the posts to fill all the spaces, and then heaped up some inches above the surface. The earth dug out is then raised as a bank around the posts to hold the lime. Water is thrown on the lime to slake it. Of course this produces heat, which drives the sap out of the wood and seasons it.

After the heat has dried the wood, plenty of water is thrown on the lime, to produce a strong lime water, which is absorbed by the dried wood, and neutralizes the acid of the wood, which would otherwise cause it to rot.

The second method is the outcome of some experiments conducted along the lines of wood preservation, the best results being obtained after a test of thirteen (13) years. The best results were obtained from tarring the wood with a brush, then sanded, tarred and dried, and tarred and sanded again. Wood treated this way was sound at the end of 13 years, notwithstanding the Old Country's varying climate.

"Warriors" at Chicago.

The above name is one of the market terms applied to army horses (remounts). This type of horse weighs 900 to 1,050 pounds, and sells at the remunerative (?) prices of \$60 to \$90.



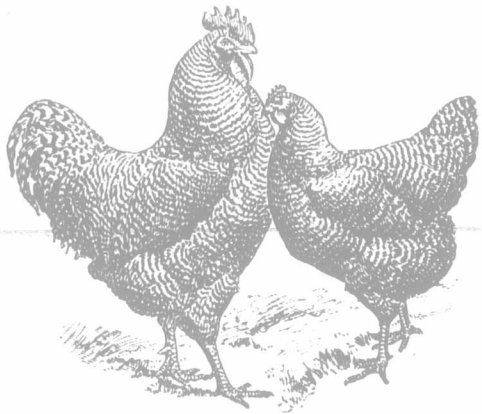
A FERRY ACROSS THE SASKATCHEWAN AT EDMONTON, ALBERTA.

Poultry: Selection of the Breed.

To the Editor "Farmer's Advocate":

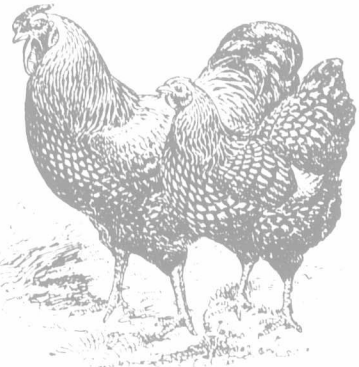
One of the most important features to produce eggs in winter is, as I have heard a man give a recipe for making rabbit pie—"first catch the rabbit." So the most important point in the production of eggs in winter is to have the hens—not only hens, but of the right sort. There are hens and hens, and some are good and some are good for nothing. Now, the question is, which is the best breed of hens for winter? And here is a difficult question to answer. I am aware that each farmer has his favorite, and he is ready to swear by it. Let me say right here, I do not think any of our kinds of poultry are perfect, and I believe our fanciers are partly to blame, size or egg production often being sacrificed to produce a standard kind. Then, again, egg production is sacrificed because the standard is so many pounds of bird, and color so and so. What we want is a bird that will mature quickly, at the same time produce a large bird, and also make a good layer—especially early layers.

I do not wish to be understood as speaking slightly of our bird fanciers, for I believe we could not get along without them. They have made a special study of bird production, and have it down to a scientific point, and can produce almost anything they want.



BARRED PLYMOUTH ROCKS.

A grave mistake that is continually being made is that a farmer buys a setting of pure-bred eggs or a trio of birds from Mr. X, a fancier of some repute, and straightway advertises pure-bred poultry for sale of such a strain of breeding. He is not able to distinguish between a standard bird and one that is off color, and when one tries to show him the difference, one is met with the remark, "I bought the original stock or eggs from Mr. X, who had the best birds at all the leading shows." Mr. X, if he knows his business, will cull and cull, and is very careful in his matings, and understands the science of breeding. He will tell you that in his best breeding and mating there will always be birds that are not up to the standard, and must be sold for the table, and if he is an honest man he will not sell such birds for breeding. The fancier has a right to a fair recompense for his trouble, and when he asks what seems a big price for a bird, we must, as farmers, take into consideration the time and money expended in the production of first-class birds. Let us, then, give him a few dollars for his birds, and demand the best. Some fanciers are so short-sighted as to sell all they have, irrespective of quality, and thus damage their reputation, and may give as an excuse, "I told the party that the birds were not up to the standard."



SILVER LACED WYANDOTTES.

A few days ago I saw two White Plymouth Rock cockerels that had been purchased in Eastern Ontario; my next neighbor has far better birds. I consider them a disgrace to the breeder, and shall not deal with that breeder if I know it. What agreement was made between the parties I do not know, save that the birds are far below the standard.

Now, the great difficulty is to settle on the best kind of hen for winter production of eggs. If eggs only are wanted, we might settle on some of the smaller kinds, but if eggs and meat are the objective point, then we must turn our attention to the larger breeds.

As I said before, I do not think any one breed is perfect, but I believe the Plymouth Rocks and

Wyandottes are as near perfection as a general-purpose fowl as any we have. They are my favorites, and have justly earned the position, for I have tried nearly every breed, and I know whereof I speak; yet I have somewhat against them. If the Wyandottes were only a few pounds heavier and as good in other ways, I should consider them the ideal farmer's fowl. If the Plymouth Rocks would only lay more and not sit so often, then I would be much better pleased. I am aware that many persons claim that they have non-sitters in Plymouth Rocks, but I have never got hold of such birds. The Plymouth Rocks generally lay about a dozen eggs and then want to sit. True, they are easily broken up, but when there is a break of several days in the laying. Since we have incubators about perfect, I think it would be a good idea if our fanciers would turn their attention to producing non-sitters and greater egg-producers, with a little more meat on breast, and in the case of the Wyandottes, a heavier bird.

I have Wyandottes that will lay in November and December, and right through the winter, spring and summer, till they commence to moult, and not offer to sit. Although some want to sit in the spring, I have never had one wanting to sit in the winter. The Wyandottes mature quickly, and will stand cramming better than any other kind.

I have Plymouth Rocks that are wanting to sit already; am just breaking up the third one this winter; they are last spring's birds. The Plymouth Rocks are a fine, large bird, good winter layers and mature early, and will stand considerable cramming.

One of my friends, a fancier, has several pens of fancy birds of the smaller kinds noted for their laying capacity. They get as good care as mine and good feed, perhaps better, for they get gravel, shells and grit, and my hens never see either. From his forty or more birds he gets an occasional egg, while my birds are turning them out by the dozens.

To the farmer I would say, "get the birds that suit best." In my next article I will give my plan for winter feeding for egg production.

Eastern Assa. J. B. POWELL.

Brandon Horticultural Society.

A meeting of the above society was held on Jan. 17th. Secretary Middleton read a very instructive paper on water, pointing out some of the principal causes of the contamination of water supply, and indicating measures that might be taken to obviate such undesirable conditions. Mr. Wadge followed with a very interesting description of a summer trip among the Indian tribes along Lake Winnipeg and some of the rivers which flow into this lake.

H. L. Patmore contributed a practical paper on "What is the best tree to plant?" This, he said, is a most common question, and one that could not be answered without due consideration of the locality where it was desired to plant. He pointed out that from the years 1890 to 1893 the native maple was generally recommended for all localities. Then for a few years the elm was the prime favorite, then the cottonwood had a run, and more recently the Russian poplars had been boomed. Locality has much to do with the suitability of trees. In Eastern Manitoba the maple was not suitable, as it is too liable to insect attacks, while the elm did remarkably well. The elm was of little use, however, in Western Manitoba, but is well adapted to the climate of Alberta. For Western Manitoba he considered the maple the best tree for general planting; it suited all soils, and was a rapid grower. He exhibited photographs of fine large trees grown by himself, and said he was getting very good firewood from trees planted only 15 years ago. He also strongly recommended the native white spruce.

Speaking of imported trees, those brought from the south, from the central portion of the continent, are, he said, much more likely to succeed here than those brought from the eastern portion of the continent, even although they were obtained from latitudes as far north as we are situated.

Before the close of the meeting a resolution was passed, strongly recommending the establishment of an agricultural college, and setting forth the many advantages offered by Brandon as a site for such an institution.

Testimonials.

W. E. Baldwin, Manitow, Man., January 13th, 1902: "Your Christmas number is getting nearer perfection than any other agricultural journal now in circulation, and the man that is not taking it is not an up-to-date farmer."

William Marwood, Holland, Man., January 17th, 1902: "I got the premium knife, and it is first-class. Every farmer in Manitoba should have one of them to cut his tobacco while reading the 'Advocate.'"

G. W. Buchanan, Pincher Creek, Alta., January 17th, 1902: "We could not do without the 'Advocate,' as it is without doubt the best agricultural journal printed. The Christmas number was the best I ever saw and was worth the whole cost for one year's subscription."

Our Scottish Letter.

SOME NOTABLE AYRSHIRES OF THE LAST CENTURY.

In a former communication (in issue of Jan. 6th, 1902) I gave some information about old-time Ayrshire bulls and noted cows, but, unfortunately, the copy of the "Farmer's Advocate" which contained the article has been carried off by someone who relished its contents, and I am not sure where I left off. This is the slack season in public affairs, and before the busy time of horse shows and bull sales begins I would like to give the Ayrshire breeders a few more particulars of the men of renown and the cattle famed in the third quarter of last century.

The leading man in the Ayrshire world from the year 1850 onwards was the late Mr. Parker, Broomlands, Irvine, one who was a bit of a character and essentially one of the olden time. He always wore a tall hat, (stovepipe) and fed his young Ayrshires wearing that headgear. Formerly, all dealers in Scotland were similarly equipped. The last to abandon the tall hat was the late Mr. Hugh Crawford, who died with startling suddenness in the middle of the great All-Hallow Fair in Edinburgh in November, 1892. Mr. Parker's greatest bull was Major, described by one of the best of the old judges who survive as the biggest and best bull of the Ayrshire breed he ever saw. Major was first at Ayr in 1854, and was of Mr. Parker's own breeding. He was in color brindled, with long, fine horns, and perhaps rather deficient in masculine character. His dam was also brindled, and the frequency of this color amongst the Ayrshires of half a century ago points distinctly to a West Highland influence in their breeding. Major was also first in 1853 at Glasgow, East Kilbride, and Ayr, as a two-year-old, but when he went to Glasgow in the following year he was only placed third, the first being a celebrated show bull belonging to Mr. Robert McKean, Lumloch, and the second belonging to a Mr. Cameron. At this show Major was bought by Sir Michael R. Shaw Stewart, Bart., but becoming ill-natured he was not long afterwards destroyed. Major was one of the greatest sires the Ayrshire breed ever boasted, and his two sons, Cardigan and Clarendon, were the phenomenal bulls of their time. Cardigan was probably sire of the class now known as yeld stock; that is, they were large-framed, roomy cows, but not distinguished by anything very fancy in the formation of their udders and teats. Cardigan was wanted for show purposes at the first Paris Exhibition, but an offer of £100 did not tempt his owner, Mr. Ivie Campbell, to sell him. He had a full brother named Sir Colin, which, as a stirk and a three-year-old, was first at East Kilbride, a notable old-time show, held in the month of June and extensively patronized even yet; in fact, Canadian buyers of Ayrshires should know that a prize won at East Kilbride means about as much as any prize can possibly mean in the Ayrshire world.

The produce of Major in the fifties were the leading animals at the West Country shows, but next to Cardigan his most notable son was Clarendon. He was second at Ayr in 1859, but first at Glasgow and Ayr in 1860. The dams of Clarendon and Cardigan were both brindled cows, but there was no comparison between them, the dam of Clarendon being a very fine cow and steady breeder of good calves, while the dam of Cardigan was not at all in favor with lovers of milk stock. The bull which beat Clarendon in 1859 went to Mr. Drew, Carmyle, and was got by a son of Major out of the dam of Cardigan. Clarendon was a most successful sire of milk stock, and his influence can still be traced, notably in the Muir stock of Mr. James Murray, a descendant of his having been first and champion at Cumnock more than once. His female produce made grand, big, substantial cows, with right good vessels and teats. In 1862, Mr. Murray, Carston (who still survives, in his 99th year, and has been an interested assistant in compiling these notes), was first, second and third with queys by Clarendon, and his produce held their own against most for many a day. He himself died in one of the earlier visitations of pleuro-pneumonia. A full sister of his, a brindled quey owned and bred by Mr. Parker, was first at Ayr in 1857. She was afterwards first at Glasgow and Ayr on more than one occasion. She was one of the best cows ever known in the annals of the breed. The Duke of Atholl's prizewinning bull at Battersea International Show in 1862 was by Sir Colin, already named, and another great bull of the period, owned by Mr. T. Brown, Holm, was by Cardigan. In 1864, Mr. I. Hyslop, High Cairn, showed Young Clarendon at the Highland. He was bred at Dalgig, and was got by Clarendon out of Skelpie by Clarendon. He was a red bull, and one of several which during the years 1859-66 bore the reputation of the Broomlands Major in a full flood of success. The whole of these cattle were



SHROPSHIRE YEARLING WETHER.

First in his class and one of the pair winning the silver cup for best pair of wethers, any age or breed, at International Live Stock Show, Chicago, 1901. PROPERTY OF RICHARD GIBSON, DELAWARE, ONT. (SEE GOSSIP, PAGE 103.)

distinguished by their great substance and long, branching horns, and these things indicate that the modern type is in no sense the original mould of the Ayrshire.

Coming down to a somewhat later date, Ayrshire fanciers will be interested to hear something about the celebrated bull, Burnhouses (8). His breeder was the famous Lawrence Drew, the younger, who made his name worldwide during his occupancy of the home farm of Merryton. He was calved in 1865, and was of a distinctly-marked brown and white color. He is described on all hands as a bull of great robustness of constitution, wide and roomy in his shapes, and, although not a noted show bull, full of style and breed character. He was too masculine in shapes to be popular with the fanciers of old stock, but his owner, the late James Howie, Burnhouses, Kilmarnock, who had great difficulty in getting Mr. Drew to sell him, always regarded Burnhouses as the best sire of the right type of dairy cows he had known. His female progeny were full of style, with grand frames and rightly-hung vessels, while their teats were rightly planted and of the proper dairy size. The ruinous small-teated craze had set in when the produce of Burnhouses made their appearance and held their own against them. It would have been well had it never obtained an entrance. Amongst the sons of Burnhouses which left an indelible impression on the breed were Auchendennan (1), Burnhouses of Drumlanrig (7), Fleming of Drumlanrig (28), The General (31), Righead of Drumlanrig (51), and Burnhouses II. (106). When the first volume of the herdbook was issued, the first crop of queys after Burnhouses were eleven years old; consequently, very few of them were registered, and a good deal of data necessary to show his influence on the breed has been lost. The first great success achieved by his produce took place at Ayr in 1870, when what were called the "five white queys" from Burnhouses won the group prize, having previously in single file given a good account of themselves in the ordinary class. In the following year, Mr. Howie brought out five brown queys, three of which took first, third and fifth in the Ayr Derby, and another, named White-legged Beauty, on the same day was first aged cow in milk, and champion female. Many other prizewinners were got by this famous sire, notably Lady Mary of Burnhouses (441), champion at Kilmarnock in 1873; Blossom 48, Ayr Derby winner in 1875, and first as cow in milk at Glasgow in 1876; Fanny II. 182, second three-year-old at Kilmarnock in 1871, and first cow in calf in 1872; Fanny of Drumlanrig, second four-year-old in milk at Ayr in 1873; Dew-drop of Drumlanrig, first four-year-old in milk at the Highland in 1874, and winner of the gold medal in 1875 and 1876; Julia 218, second three-year-old in calf at the Highland in 1877; Lizzie, first four-year-old cow in milk same day, and Frost, cup winner at Stirling and Dumbarton in 1876, first three-year-old in calf at the Highland same year, and gold-medal winner at the great Edinburgh Show in 1877. Frost was owned by Mr. John M. Martin, then farming at Auchendennan, on the banks of Loch Lomond, and the old bull himself died in the possession of the same gentleman. He had a stiff job getting Mr. Howie to sell him, although he was then a very old bull. His purchase was, however, a good investment.

The praise of Burnhouses is on the lips of all Ayrshire fanciers to this day, but scarcely less popular is the bull known as "the Company bull," but registered as White Prince (63). He was bred by Mr. Howie at Burnhouses in 1871,

and acquired distinction as a sire at Burnhouses, but passed after a little into the herd of the Duke of Buccleuch at Drumlanrig, then rising into prominence under the skillful management of Mr. James Cranston. White Prince lacked the masculine character of Burnhouses, but was a bull very much after the same type in other respects. His female progeny were adversely criticised as being rather strong in the bone. His sire was an unregistered bull called the Dykenenk bull, and his dam was a daughter of Burnhouses (8). Some of his female progeny made phenomenal records in the show-ring, and if less numerous than those of his grand-sire, their influence on the breed was probably quite as enduring.

I close these jottings with a few notes regarding the most renowned of all the sons of Burnhouses (8). This was Auchendennan (1), bred by Mr. John M. Martin, and got by the old bull out of his own daughter. He was in color light brown and flecked, and in build and conformation he belied all theories of inbred animals being dwarfish and lacking in stamina and substance. His female progeny were well-framed big cows, with what were called rather "soft" vessels and teats of fair length and thickness. The tribe, however, were not noted for their milking qualities, but they made a decided impression for good on the breed, being big, grandly-framed animals, with wide chests. Auchendennan was a singularly impressive sire, and a standing proof of the value of inbreeding if such an animal is to be produced.

These notes may be again resumed during a slack season. What I want to demonstrate so far is that the early Ayrshires—that is, those before 1850, and the more recent Ayrshires of the period of the Parker and Howie domination—were great, roomy, healthy cattle with wide chests and good sound vessels and teats of the commercial type. The "shelly" Ayrshire is a comparatively late development in the breed—and had to be developed—the originals were not of that stamp. Hence the vast number of herds of great, roomy, wide Ayrshires to be found in Scotland quite apart from the show-yard fancy.

"SCOTLAND YET."

Saving the Little Pigs.

Allow me to give your farmer readers a pointer on raising litters of pigs. It has been my endeavor for years to plan some way to prevent brood sows lying on their young ones at farrowing time, and killing sometimes half of them. I have tried stinting them with bedding, long straw sometimes, and short cut straw at other times. I have nailed scantlings, also, around the pen, about one foot from the floor and from the wall, that the young ones might take shelter under them, but those plans have failed. I have now tried another, which I believe will work all right. I had a young sow coming in. I went to work and made a platform or table about eight feet square, similar to those we have for young feeding pigs to lie on, with only this difference: I made it low on sides, so that if the little fellows got off they would be able to get on again. I put this table in the center of the pen, away from the walls, and gave the sow some cut straw on it for bedding. She made her bed on it, and it kept perfectly dry. Had it been on the level of the pen the straw would have been wet, cold and uncomfortable, but being dry, she was contented and lost none of her young ones. I believe this dryness of bed is the whole secret, together with being also away from wall.

T. PORTER.

A Call to Farmers.

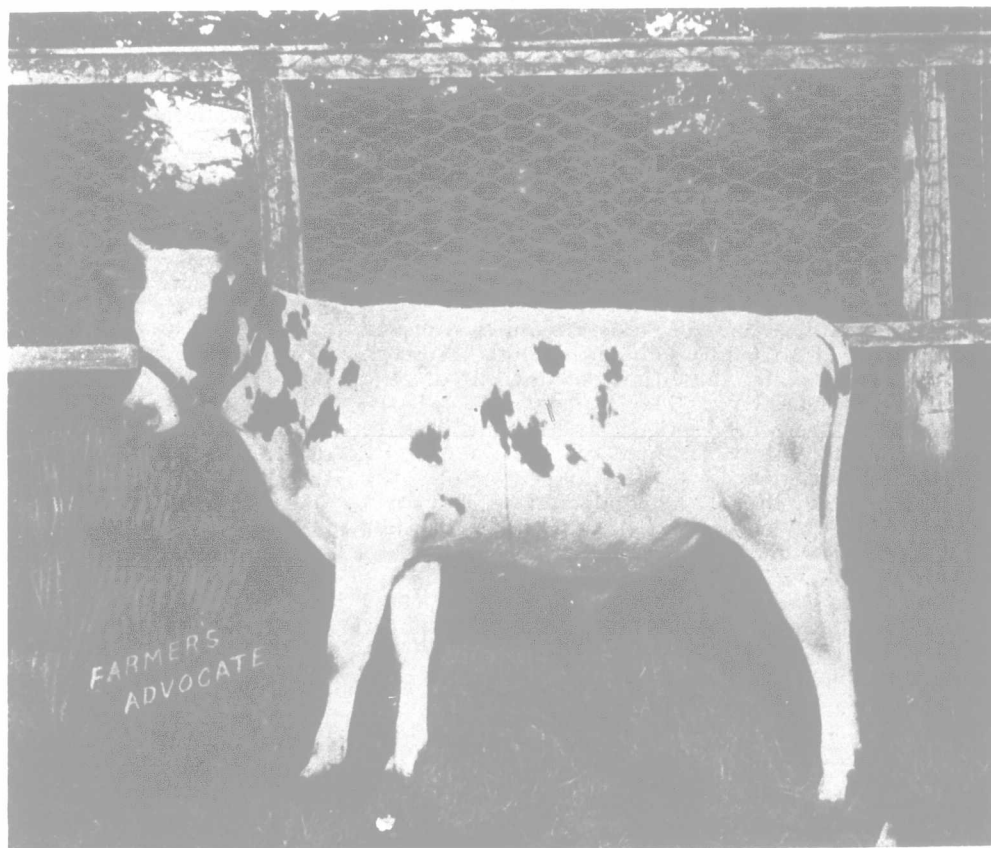
The columns of the "Farmer's Advocate" have ever been devoted to the furtherance of progressive agriculture, one form of which we believe to be in the establishment of an agricultural college by the Province of Manitoba. In view of the fact that rumors of elections are in the air, the farming community should see that their interests, educational and otherwise, get the attention from the political parties that their importance warrant. Every candidate should be pledged to agitate for and support the establishment of an agricultural college. This should be made a personal matter, and each and every farmer should pledge his representative, of whatever political stripe, to vote in the House and lobby for an agricultural school. Public opinion among the farmers is strongly in favor of such a school, and we consider the time ripe to bring the matter to a head. Little or no attention need be expected from any Government towards the school unless the farmers themselves insist strongly that it be established at an early date. The farmer members of the Agricultural Commission are enthusiastic over such a school, as a result of their recent tour of inspection. As we have stated before, there is a hunger for such training as can only be got at such an institution, and if farmers will only insist on their rights, they will succeed. In this connection we are reminded of the parable of the importunate widow, and to farmers we would say, "Go thou and do likewise."

What the Country Wants.

One thing that Canada wants to-day is that more of her sons of ability turn their attention to farming and cease to strive and to struggle upon the pittance offered in city offices. All such young men may have free scope and exercise on the farm for every grace and refinement they may possess, and they need be no less courteous gentlemen than that in the proudest city home.—"Farmer's Advocate."

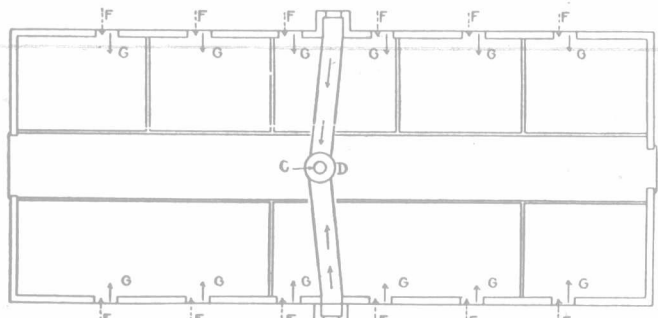
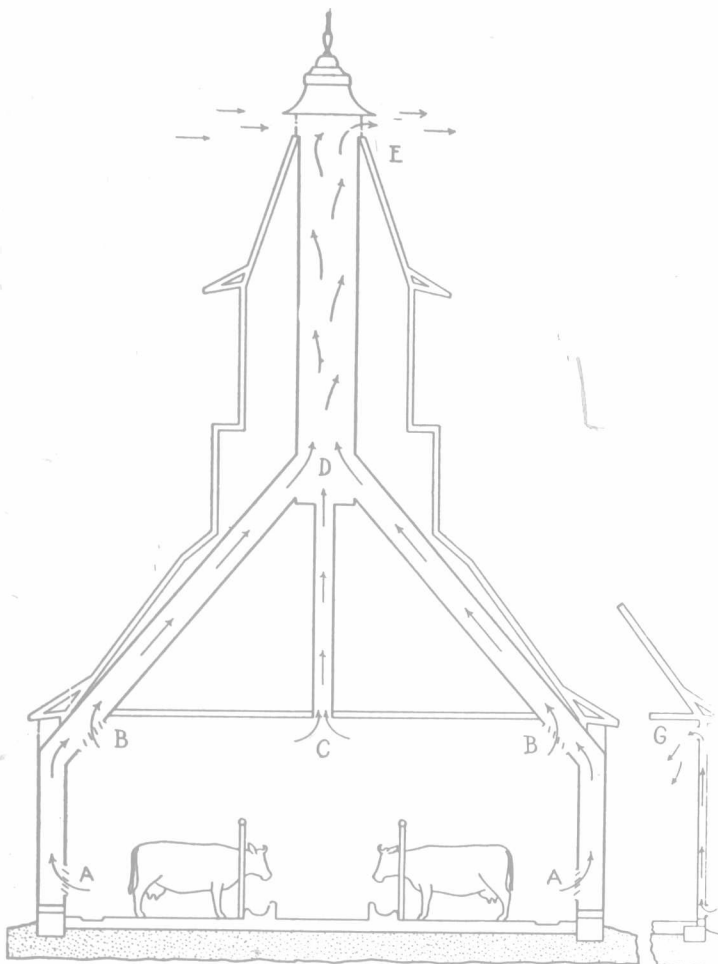
Our contemporary has given some good advice that the farmers' sons not only of Canada but of this country can ponder over. More young men are coming to the city every year to begin at the foot of the ladder than there are opportunities to improve upon the conditions that they are leaving behind them. Perhaps too many bright and gleaming pictures have been published of the youth starting cityward with a sixpence in his pocket and in old age retiring as one of the notables of the land. In juxtaposition with this should be printed also the thousands that merely eke out an existence, when they might have been happy and prosperous in the rural community. It will be well for the young man who is city infatuated to look well at what he is leaving and study impartially what is before him previous to any great change. The most that we can say is to look at matters as they are—not through the eyes of the fanciful picture painter.—The Drover's Journal.

There is no telling what influence the proposed Domestic Science annex will have upon the rush of young men desirous of pursuing their agricultural studies at Guelph, Ont.



UTOPIA 13726.

Ayrshire bull calf, son of Matchless 7500 and Imp. Nellie of Barcheskie. PROPERTY OF J. N. GREENSHIELDS, ISALEIGH GRANGE, DANVILLE, QUE. (SEE GOSSIP, PAGE 103.)



VENTILATION SYSTEM IN USE AT WISCONSIN EXPERIMENT STATION.

Ventilation of Stables.

In a climate where live stock are housed a considerable portion of the year, the question of ventilation, which means the removal of impure (breathed) air and replacing it with pure air, is a vital one to the stock owner.

Three reasons may be given for ventilation:

1st. To ensure the removal of impure air, containing carbon dioxide, marsh gas, and ammonia, which, if breathed, would be more or less poisonous to the animal.

2nd. To ensure an ample supply of pure (oxygen-containing) air.

3rd. To remove the moisture exhaled from the lungs of animals, and to remove germs and dust particles.

Many experiments have been devised to show the unfitness of air once breathed to be again used by living beings. In fact, a test known to most people is to place a lighted torch or match in the atmosphere suspected as unfit to breathe in; if the light goes out, that place is considered dangerous. The extinction of the torch was due to a lack of oxygen, without which animal life cannot be sustained, and to too great a proportion of carbon dioxide. A great amount of the water taken into the body is removed by the lungs and skin as invisible vapor. Consequently, if the air is not changed frequently it becomes overloaded with moisture, and the stable appears damp. The appearance of moisture on a stone or cement wall is no condemnation of that material, but is a sure sign that the ventilation of the building is defective. The appearance of the moisture on the walls is because those walls are at a lower temperature than the air. To verify the statement, breathe on a window; the moisture of the breath is condensed in the form of drops of water, yet no person will say that the glass drew moisture. The newspapers often contain accounts of lives lost through gas escaping from stoves, fire-damp in mines, and occasionally from carbon dioxide in silos; yet we never hear of the stunted growth and unhealthy appearance, due to lack of ventilation in stables. Ventilation is a problem in the West, as while no difficulty is experienced in bringing in fresh air and removing impure air, considerable difficulty has been found in carrying out the above without unduly lowering the temperature of the building or causing drafts. That noted agricultural physicist, Prof. F. H. King, late of the Wisconsin Agricultural College, and now of the U. S. Department of Agriculture, Washington, D. C., has designed an admirable system, known as the King system of ventilation,

which has been installed in several fine barns in the U. S., and which works well. The accompanying illustration will show the principle of the plan; it represents a section of the cow stable in the dairy barn of the Wisconsin Experiment Station. Several apertures in each wall, marked F and G, shown also in floor plan, permit the entrance of fresh air, while the breathed and contaminated air is allowed egress by the openings, A, B and C. These openings are provided with ordinary registers, with valves to be opened and closed as desired. The registers at AA remain open constantly, those at BB when the stable is too warm. C is the opening to a direct 12-inch ventilator leading into the main shaft: it opens from the ceiling, so as to admit a current of warm air at all times to help force the draft. The upper portion of the shaft is three feet in diameter, and is made of galvanized iron.

The increase in basement stables, which are quite often unhealthy, due to poor ventilation and lighting, render the subject of ventilation a worthy subject for study.

ESSENTIAL FEATURES OF A VENTILATING FLUE.

A good ventilating flue must have all the characteristics of a good chimney. It should be constructed so as to be entirely air-tight, so that air enters only from the stable. The flue should rise above the highest point of the roof, so as to get the full force of the wind. It should be as straight as possible, and should have ample capacity. It is better to have one large ventilator than several small ones, as the air current will then be stronger.

A Reply to the Angus Champion.

To the Editor "Farmer's Advocate":

I notice Mr. F. J. Collyer's letter in your issue of the 6th of January. In reply I may say that in my former letter I tried to apply a principle, and regret that some of your readers did not understand it as such. We have only a few Polled Angus cattle in Manitoba, and I do not think I am very wide of the mark in saying that many of your readers in the West have never seen them, and would hardly know what was meant by including them in the list. Not so with the Shorthorns and Herefords. I took the Shorthorn as a standard or model, for they have been conspicuous at our Winnipeg and Brandon Fairs, as well as at our local exhibitions, in the Province for years. Again, I have looked over thousands of export cattle in the Winnipeg stock-yards for several years in succession, in company with Mr. Gordon, of the firm of Gordon, Ironside & Fares, and he has invariably pointed out the grades of Shorthorns and Herefords as the best for export in the lots. It is well always to discuss the known rather than the unknown. The object lesson then becomes practical.

But allow me to quote a few figures, which tell a different story. In the Chicago Weekly Live Stock Report of January 3rd, 1902, page 4, is found a report of pure-bred cattle sales made by Col. F. M. Woods, the veteran live-stock auctioneer. This is a resume of the auction sales at which he officiated during the past year. He says that he held 145 cattle sales, selling, among others, 4,045 Shorthorns for \$1,136,290.95 (average, \$280.91) and 894 Angus for \$248,025 (average, \$277.43), and that the highest prices were: For Shorthorns—Bull, \$5,100; cow, \$6,000; and for Angus—Bull, \$1,300; cow, \$1,700. In the same publication, page 3, the price of native beef steers is given in part as follows: Monday sales, 37 grade Angus, 1,377 lbs., at \$7.00. Wednesday sales included one load of prime 1,395-lb. Shorthorns, at \$7.75. You see the steers were nearly the same weight, but the prices were nothing like what Mr. Collyer would have us infer they were worth, but the very opposite, as they were in favor of the Shorthorns. These figures have a practical meaning to practical breeders, both as to quantity and to quality.

As you, Mr. Editor, went to Smithfield for your "extra," you will perhaps allow me to go to the Old Country for an "extra," too. See the Mark Lane Express and Agricultural Journal of Jan. 6th, 1902, page 8, on "Pedigree Stock Cattle." It says: "Shorthorn breeders, when the stock has been of first-class quality, have made good prices. Mr. Duthie obtained £682 10s. for a bull calf, while twenty of this age averaged £157 11s. Lord Lovat succeeded in obtaining £420 for a bull, while Mr. Marr for a bull calf received £320 10s. Herefords have had an exceptional year, not only in this country, but more especially in the United States. Exportations have been more numerous, up to £1,250 being paid privately for a bull. A feature of the year has been the increasing popularity of the Aberdeen-Angus. The best price obtained for bulls during the year was £89 for one of Mr. J. H. Bridge's." It is from such data as I have presented that I reach my conclusions.

Now, I have nothing to say against the Polled Angus; never had, and if the Polled Angus are not appreciated as they should be, or not referred to in a general article as much as breeders

of Polled Angus would like them to be, breeders should bring them out to fairs in greater numbers and in better form, so that the public may judge for themselves of their merits.

I am afraid my article is too long, but as it is only by discussion that attention is directed to any subject interesting to farmers, I hope you will favor me with space as usual.

Winnipeg.

HUGH McKELLAR.

The Piggery.

To the Editor "Farmer's Advocate":

I believe in the economy of building permanent hogpens. While I know that hogs have been raised successfully in the old straw sheds, or, better, the sod stable, yet I have several reasons why I would advocate the permanent hogpen. The first is the economy in feeding and in time, and in a modern building many conveniences can be arranged, which enables a man to accomplish much more work with pleasure and comfort.

The first and most important consideration is the choosing of a good site, because nearly everything depends upon it. It should be built on high ground, so that there will be good drainage, and there should be room on both sides for exercise yards. It might be well for one to consider before building which way it should stand. Our piggery runs east and west, and we find that in the winter time the north yard is of practically little use, and during summer the south yard is often extremely hot.

I believe that a frame building is most suitable for this country. Stone is too cold and damp. The size of the piggery depends, of course, upon the extent of the business. Thirty feet is a very convenient width, and the building can be extended as long as requirements demand. This width gives room for a row of pens on each side and a passage about 5 feet wide in the center.

I shall not enter into details of building, but simply give a few suggestions which we have gathered from experience. The building should be constructed with a view to keeping it as warm as possible. In this connection, some farmers claim that if the outside sheeting of the building is laid vertically instead of horizontally, as has been our custom, the wind and snow will not penetrate as readily. The building must be made warm if the young pigs are going to thrive. They will do better in a real cold place than one that is just warm enough to have a cold, damp fog hanging about. I have studied closely the subject of ventilation, and by the use of galvanized iron pipes and the common board ventilator, the air can be kept fairly pure in moderate weather, but when the thermometer registers about 40 below, I have been forced to think that the less ventilation we can have at such times the better. I would strongly advise that heavy material be used in the construction of pens and partitions. Inch boards soon give way. If we are breeding for pork, it is better to have fairly large pens, as the pigs are easier fed and cared for. There should be plenty of light and storm windows provided for the winter.

The floor of the piggery is a very important item. Cement makes a clean, durable floor for the passage in the center, but I have found it unsatisfactory for the pens. The pigs do well on a plank floor, with the back part of it raised 6 inches for a sleeping place for the hogs. Our piggery is built with 14-ft. studding, and we find the loft above very convenient for bedding and other purposes.

Young sows intended for breeding should be at least 8 months old before being bred. I believe that two litters a year can be raised; one as early in the spring as possible, say the middle of March or April, and the fall litter in September, as it is better to have the young pigs a good size before the cold weather sets in. I have found that nothing can take the place of milk for young pigs, especially in the winter. Whenever possible, let them root in fresh soil. Pigs intended for pork do better if they are shut up after they are four months old and fed all they can eat. If allowed to run about they do not fatten so readily. A pig intended for breeding should always have plenty of exercise. If they are fed four times a day instead of twice, as is sometimes practiced, they will gain more on the same amount of feed and be more thrifty.

I doubt if we can get pasture in this country which will fatten pigs at a profit. They run about too much to lay on flesh. Brome grass, or a mixture of oats and peas, makes a fair pasture for breeding pigs, if supplemented by milk and a little grain. I am throwing in a forkful of unthreshed peas into each pen of small pigs, and it appears to do them much good. I cannot close without adding a word about something which I believe is even more essential than good buildings in successful hog-raising, and that is, constant care and watchfulness, without which good buildings only make the failure more complete.

Crystal City, Man.

JAMES YULE.

John R. Dutton, Westbourne, Man., January 17th, 1902: "The paper is the cheapest dollar's worth published."



MR. THOMAS R. BROWN, REGINA, N.-W. T.

A Solution of the Threshing Problem.

I have had 25 years' experience of threshing in Manitoba, and have been in syndicates using horse power, both sweep and tread, as well as steam power, and have hired all kinds of machines as well, thus coming in contact with every side of the question.

As to size of machine, the tendency of late to operate large machines is a move in the wrong direction. My ideal of a machine (although I have not yet seen it) is a separator of 600 bushels per day capacity, equipped with feeder, stacker, and high bagger, driven by a gasoline engine. Such a machine would do the work on two farms of 320 acres each, or three farms of 160 acres each. Such a machine could be operated by five men in stook threshing, or four when threshing stacks. In stook threshing it would require four teams, each teamster loading his own load. I do not favor deep basket racks, but have each end of rack boarded up, with braces from the corners on each side, leaving open space in middle of each side, which would facilitate forking both on and off. A good man with this rack, and after a little practice, will make a load almost as large and quick as two men. One man could look after the machine, and by having movable granaries of 600 bushels capacity, the grain will look after itself. But when at all practicable, grain should be delivered at elevator even if extra men and teams have to be hired.

With a syndicate of three or four, would start at one end and give two or three days each, always taking the most convenient job next: when reaching the last man, give him a double number of days, then work back to starting point. The following year start at other end.

In organizing syndicates have a president and a secretary-treasurer, and put the machine in charge of a member of syndicate if he has the qualifications; if not, hire one man who is capable of looking after it. Every man should have his allotted work in moving as well as looking after machine, in starting and cleaning up, as time is lost by men who prefer to sit down by a stook and smoke, instead of looking after a share of the work.

The kind of an outfit indicated would not require sleeping or boarding vans. Each farmer would take his share of the men home, where they would be ready to assist with the chores morning and evening, or to plow if the weather is unfit for threshing. The noon meal would be the only one taken together, and the small gang would be nothing unusual at most farmhouses.

Such a machine should be purchased for \$1,200 or \$1,500, and a half cent per bushel would pay for maintenance and repairs. Would equalize threshing by charging each member of company two cents per bushel, crediting each with equal share of earnings, and charging each with equal share of expenses.

The biggest difficulty with present system of large machines is to keep the gang over a spell of bad weather, such as we have had the past two seasons. The suggestions I make are not practicable on large wheat farms, and those who persist in this style of farming will have to suggest a remedy for themselves, or struggle along under the present difficulties.

Stanley Municipality, Man. F. BOLTON.

What Grooming Means to Live Stock.

Grooming, or the application of the brush to the hairy coat of live stock, has results more far-reaching than is often dreamed of by the user of the brush. The skin is made up of layers upon layers of cells, among which are to be found small blood vessels, nerves and little pockets or foldings-in of the skin, known as glands—sweat and grease (sebaceous). One of the effects of grooming is to irritate the small ends of the nerves, which communicate the irritation to the small blood vessels, with the result of an increased blood supply to the skin surface. A result of the increased blood supply to the skin is the increased activity of the glands. The sweat glands get rid of waste material, and thus share the work of the kidneys and bowels. The organs of the body which have to do with the throwing out of waste material are the lungs, the skin, the kidneys, and bowels. All are designed to work together harmoniously for the common good, namely, the health of the animal, and if by any means one of these avenues of escape is stopped up, that work is thrown on the remaining excretory organs, and it is only a short time until the effect of overwork tells on the other organs and ill-health results. The grease glands when working well make the skin oily and mellow and the hair glistens, the result of the increased pouring out of the greasy matter from these sebaceous glands. A somewhat similar result comes from blanketing stock, due to the increased warmth, which dilates the blood vessels and thus causes an increased blood supply. The opposite effect on the skin results from exposure. Cold drives the blood away from the surface of the body and hinders the work of the skin glands, in addition to throwing heavier work on the kidneys. The reason that live stock will go through a winter ungroomed, with long coats of hair, and yet be apparently healthy, is due to



THE FIRST JUDGING INSTITUTE IN MANITOBA.

the fact that the skin glands of such stock are practically resting from their labors, as owing to lack of exercise the skin is not called upon to work. Given work, however, calling the skin functions into play, and at once it is seen the handicap under which the long-coated, ungroomed animal suffers. In horses, this is recognized by practical men, who clip their charges. The exposed animal needs a long coat of hair, which nature provides, as the space between the outer ends of the hair and the skin is practically a dead-air space. This dead-air space is increased in animals when the "hair stands on end," as it is frequently termed, a condition usually associated with exposure to a greater or less degree. A great growth of hair is not without its disadvantages. It means a correspondingly greater draft on the body forces, or, in other words, expenditure of food. If food is used to grow hair, it cannot be used to build up or grow an animal to any great extent. The use of the brush will tend to remove dead-skin scales, thus preventing the blocking up of the gland entrances, besides stimulating the nerves controlling the blood supply to the skin. We can, therefore, reason quite easily that grooming means improved health to live stock and economy of production to the owner.

Swapping Names.

On this page of the "Farmer's Advocate" we present the portraits of Mr. Thos. R. Brown, of Regina, and Mr. John D. Ross, of Elgin, two of the most enterprising and successful of our Western grain producers, who are not inappropriately styled "Wheat kings," though their ability to produce is not limited to that magnificent cereal. These portraits appeared in our last issue, and a good thing will bear repetition. Owing to a curious transposition, Mr. Brown was branded as Mr. Ross, and vice versa, and to set matters right we give our readers the pleasure of a second view. Both being handsome men of the best type, neither could claim that he was badly represented, but at this date it is not worth while swapping names.

A New Departure.

The Bradwardine Farmers' Institute is one of the few that has escaped the dry rot, due largely to its efficient officers. Determined to still be in the lead, Dr. Hopkins, of the "Advocate" staff, was invited to conduct a live-stock judging institute. Three meetings were held, at two of which live stock were used, the work of the first session being "the judging of draft horses and the explanation of the score card." At the third session, "judging of beef cattle" was the topic, three head being used to illustrate the lecture and make comparisons. The interest taken was great, between sixty and seventy farmers, among which were a large number of young men, being present, from among whom, no doubt, will be recruited several to enter the judging competition which will be again held in connection with the 1902 Brandon Fair. At the evening session, a talk on "How Bacteria Affect the Farmer" was given. We believe the Bradwardine farmers are the first to hold a live-stock judging institute in Manitoba, if not in Canada, thus exhibiting the same up-to-date traits which show plainly in their farms and buildings.

It will be remembered that the "Advocate" recommended some time ago the adoption of the principle in Institute work of "Demonstrate rather than describe," and expressed the belief that in the adoption of that principle lies the solution of the Farmers' Institute problem.

The Telephone on the Farm.

In the more thickly-settled districts there is nothing whatever to hinder a number of farmers combining as a telephone company. Ten or a dozen farmers might unite and thus be enabled to communicate with one another and with town, and thus save time in cases of sickness, besides being able to get the market prices every day, and save on a few loads of wheat the entire cost of the outfit. By arranging the details carefully, a single line would serve for ten farmers. It takes 160 pounds No. 12 wire to the mile. There would

also be poles and insulators; of the former, 28 to each mile, with 30 insulators. Phones can be bought for \$20 apiece. Better results are obtained from eight or ten 'phones on the one line than from a larger number. At the Brandon Experimental Farm, the fence wire was used for some time, with fairly good results. The results would have been better if the wire at each fence-post had been

wrapped around with a small piece of rubber, thus rendering the insulation perfect. If the insulation is imperfect, some of the current gets away and the transmitting powers are weakened. There are lots of districts in Manitoba along some of the main roads where such a system would be of immense benefit to the farmers. On the country circuit signals could be arranged for calling: 1 ring for farmer A, 2 for B, and so on. Another advantage would be the ease of communication with the neighbors. On large estates where two or three farms are owned, more or less remote from one another, a telephone system would work admirably. Any farmers' combination can buy telephones and equip a line as suggested.



MR. JOHN D. ROSS, ELGIN, MAN.

Farmers and Their Fire Insurance.

Every prudent farmer, as well as every other prudent person, insures such of his property as fire may probably destroy, and no argument is required to prove the wisdom of fire insurance or the folly of being without it.

The first regular fire-insurance office in Great Britain was opened in London, England, in 1681, fifteen years after the great fire of London. The first Canadian fire-insurance office was opened in 1804. One hundred years later we have a large number of Canadian fire-insurance companies and, in addition, many Canadian branches of British and American companies.

Fire insurance is a contract, or bargain, between the insurance company on the one hand and the property owner on the other, under which the property owner agrees to pay a certain sum of money to the company, in return for which the company agrees to pay to the property owner such loss, or damage, not exceeding the amount of the insurance, as fire may cause to the insured property during the term of agreement. The bargain is, however, usually, or always, a conditional one, and it is provided in the contract that the company shall not be liable for payment unless that the insured shall comply with and fulfill the reasonable terms or conditions of the bargain, which bargain is usually set forth in a printed and written document called the policy. This policy, though not generally so treated or regarded, is a paper of very considerable importance, and should be very carefully read by the property owner. Hundreds, or thousands, of dollars may be lost by a failure to observe the conditions of the policy, and how can a man be sure that he is observing the conditions of a policy that he has never taken the trouble to read? And how can a man blame a company if they refuse to pay his loss which they had only agreed to pay upon certain conditions, which he has not complied with?

Not only should a man read his policy, but he should not less carefully read and understand the application that he gives to the insurance agent, for the application is a part of the contract, whether it be made out by the property owner or by the agent, for if the insurance agent fill up the application form, and he usually does, he is, in so doing, deemed to be the agent of the owner and not of the company. The facts should all be truthfully and correctly represented in the application, for any misrepresentation or error therein may make the contract void.

We have, doing business in Canada, "stock" fire insurance companies and "mutual" fire insurance companies. A stock company is formed by a number of persons, called the stockholders, who contribute in cash to the capital of the company, and they then solicit business as any other stock company, and are entitled to divide among themselves such profits as there may be, and are liable, up to the amount of their subscriptions to the stock or capital, for the company's losses. Usually such companies do not divide and pay out all the profits, but set aside a percentage to form a reserve for the further security of the policy-holders. A person insuring in a stock company pays a fixed cash premium, signs no note, and, no matter how great the fire losses, has no further liability.

A mutual company is formed by a number of persons associating and agreeing to mutually contribute to the payment of each other's fire losses according to rules and regulations as included and set forth in the charter, rules, by-laws and policies of the company and the laws respecting fire insurance in general and mutual companies in particular. There are no stockholders in a mutual company, but every person insured therein is a member of the company, and if the company's losses are unusually small the members receive their profits by obtaining their insurance at a cost less than the ordinary rates of the premium; while if the losses are unusually heavy, each member must contribute an extra sum, thereby increasing the cost of his insurance. In other words, he is a partner in an insurance business, and shares profits and losses as in any other partnership, save that each member's liability is limited to the amount of his premium note. To insure the fair and proper contribution of the members to the payment of the losses and running expenses of the company, each member is required to give, with his application, a premium note or undertaking, payable to the company, and the amount of the note in each instance is based upon the nature, location and construction of the property insured and the amount for which insured. Collections are made by pro-rata assessments on the notes. The premium notes are usually taken for larger sums than the company expects, with ordinary losses, to collect from the policy-holders; nevertheless, the signer of a premium note is liable for the full amount of the note if the company's losses and expenses demand it, and, this being so, a mutual company's premium notes are a valuable and important part of its capital, as is the unpaid subscribed stock in a stock company. And the well-conducted mutual companies, as well as the stock companies, provide for and create a cash reserve which gives the policy-holders increased security

and enables the company to make its assessment more regular and uniform, setting aside a fund in times of light losses to help to meet its payments when losses are heavier. A mutual company is permitted by law to make a yearly assessment, not more than ten per cent. of the premium notes, to form a reserve fund. A member of a mutual company is liable only for losses occurring during the term of his policy. A member of such a company may be sued upon his premium note, if properly written, in the Division Court for the division in which the head office of the company is located, no matter how far that may be from his home.

Fire insurance, and particularly on farm property, has not been very profitable in Canada for the past number of years, and a great deal of the farm insurance in Ontario is now placed in local or township mutuals, which companies certainly have advantages over the larger companies doing business over wider areas. The local companies, having their directors located in different parts of the comparatively small fields in which they work, have a personal knowledge of nearly every applicant for insurance, and are thus enabled to shut out men of bad reputation or of bad financial standing, or who, because of excessive drinking or other reason, are known to be grossly careless, and thus many bad risks and losses may be avoided. On the other hand, the larger companies have the advantage of the services of officers who have been educated in and have knowledge of the business of insurance, and in insurance, as in everything else, good and skilled management counts for much.

Too frequently the local companies, in their anxiety to keep down rates, fail to provide for any reserve fund, and when the years of heavy losses come, as they do come to all companies, heavy assessments must be made and a great many of the members desert the company to insure elsewhere, and thus the company is weakened and, it may be, forced into liquidation. And in other ways there is sometimes an inclination upon the part of the management to mistake niggardliness for economy; and perhaps to cut down a few dollars in the payment of a loss, a company may lose a member and injure very much its reputation, although no company can satisfy every one in this respect. It will pay a township company to secure the most efficient possible secretary, and when they have a good man, not to lose him for the sake of a few dollars of salary. The experience he will gather from year to year will be profitable to his employers.

Do not always run after the cheapest insurance, for the cheapest is not always the best, and that which at first appears very cheap often proves to be very dear; but always insure; be careful to notify the company of any change in the ownership, occupation or construction of the premises, or of any change in the mortgage; and pay your premiums promptly and in good time, for an "absent-minded beggar" who deserves and generally gets little sympathy is the man who didn't insure and passes a subscription list when a fire comes his way.

H. H. MILLER.

Small Gasoline Outfits the Safety Valve.

In this district we are fairly well served with threshing machines, the crop of 1901 being all threshed by the first of November. Owing to the short crop and wet weather in the fall of 1900, the threshers here formed a union and put prices up. The result of this was that three new outfits of the best make were purchased this last season and brought into the district, and in consequence prices had to come to the former standard. Should threshers form a union throughout the Province and put prices up, the farmers can easily help themselves by buying gasoline engines and small separators and doing their own work.

There is one of these gasoline outfits in this locality, and it gives entire satisfaction, can be operated by anyone who can run a binder, and there is no danger from fire with them. Should prices for threshing be forced up, I, for one, would buy one of these outfits, and many others would follow suit. In my opinion, if a combine of threshers is formed it will be the means of bringing in new machines all over the Province, which will put things in good shape.

W. J. HIGGINS.

Cameron Municipality, Man.

Smaller Threshing Outfits Wanted.

I think the most likely solution of the difficulties in connection with threshing is that the farmer should have a small outfit of his own, where the acreage he has in crop warrants it, or that two or three neighbors (who are not likely to quarrel) should unite in the ownership and operation of one.

The manufacturers of engines and separators should turn their attention to supplying such outfits to farmers at a moderate cost, and in their advertisements they should give prices.

Further information as to the suitability of gasoline engines for threshing and other farm purposes would be welcomed by farmers.

Ritchel Municipality, Man. WM. WALLACE.

The Sir Wm. Macdonald Educational Gift.

(From our Ontario and Eastern edition.)

By the kindness of Prof. Robertson we have before us full memoranda of Sir Wm. Macdonald's plan "proposed for the improvement of education at rural schools and for the establishment of courses of instruction and training in Domestic Economy at the Ontario Agricultural College."

In addition to provision for a Nature Study and Domestic Economy school at Guelph, as reported in our last number, the gift makes provision for two experiments or object lessons in each of the five Eastern Provinces of Canada, of the following character:

No. 1.—The consolidation of five, six or more rural schools into one central graded school, to be equipped with a school garden and a manual-training room.

No. 2.—The appointment of a travelling instructor to visit and spend one half-day per week in each of a group of eight or ten rural schools for a term of three years, to train the teachers and pupils of these schools in nature study and the making and proper using of school gardens.

No. 3 is supplementary to the two mentioned, and consists of the establishment of evening continuation classes, either at the central graded school or at one or two convenient schools in group No. 2, for advanced instruction in agriculture and horticulture, of the youths employed during the day on the farm.

It is thought that the practicability of the central graded school has been demonstrated by the facility with which milk and cream are collected. Since the milk or cream of a half dozen school sections can be collected daily to a central place, it is believed that the collection and distribution of children by a similar arrangement of routes may be provided for.

Of course, these single examples in each Province are to serve the purpose of object lessons or illustrations of what may be accomplished and how it can be done. Nature study and manual training cannot be generally introduced in a day; their introduction must come as a gradual evolution and improvement of the aims and methods which may be dominant for the time being. Concrete examples of the kind designed by Sir Wm. Macdonald and Prof. Robertson will set a standard, furnish effective answers to objections and thereby, doubtless, greatly hasten the desired end.

The memorandum cites three causes that have hindered the right kind of educational progress, viz., "want of money, the fact that the timetable is already too full, and the fact that teachers are not properly qualified to take up better methods." We shall presently add a fourth cause that is equally valid, but first a word as to those assigned.

The lack of money will not stand in the way when the people realize the need of improvement; indeed, in most schools but little increase of funds would be required. Then with regard to the time-table the difficulty is more imaginary than real. As we stated in last issue, nature studies can be, and should be, correlated with most of the other studies. For example, many of the experiments performed by the children will furnish practical problems in arithmetic—a problem solved to meet a need and for a definite purpose is worth a dozen aimless theoretical ones. There is no better material for descriptive composition than the reporting of the observations and investigations made by the child. As in arithmetic, so in drawing, the best lessons are those in which the pencil is used to express an idea which the child desires to record or convey. The pupil called upon to stand before the class and read his composition, it may be, upon the building of a particular robin's nest or the digging of a drain through his father's field, receives excellent training both in composition and reading.

The proper correlation of studies fully meets the second difficulty named above, but the third—that the teachers are not qualified—is a very real one. We believe that this difficulty will not be overcome generally until the academic training of intending teachers in the High Schools and the professional training in the Model and Normal Schools are better adapted to the ideal work of teachers in agricultural communities. In this essential particular the proposed school at Guelph, as per the plan outlined in the memorandum, is likely to count for little. In Ontario, from 750 to 1,000 teachers annually give place to as many beginners, the great majority of whom are in the rural schools. It is proposed to admit, at Guelph, classes of about thirty teachers for a two or three months' course, in all about 100 a year, or only about one-seventh of the recruit. With their present academic attainments, in so short a time as three months they can acquire only a superficial acquaintance with the sciences that underlie agriculture, and further, as we pointed out in last issue, and cannot too strongly emphasize, there remains the more difficult but indispensable feature—the learning to use this nature study in the way best suited to the individual child. This point was emphasized by a prominent educator in the Boston Transcript the other day, who showed that it is not an easy

matter to make clear the wide difference between making nature-study minister to the child and subordinating, if not sacrificing, the child to nature-study,—between the development use of nature and the mere information use of it. That the teacher should be trained in the development use of nature studies is the essential thing.

A difficulty not mentioned in the memorandum, but nevertheless a real and serious one, is the fact that the people are not prepared for the ideal school. Were the necessary equipment and the competent teachers immediately available, we have many people who would not welcome them. Have we a reader who does not know of neighbors—are they in the majority?—who would say: "We send our children to school to learn reading, writing and arithmetic, and we don't want their time wasted over bugs and flowers and whittling?" Even many who see and deplore that the tendency of the country boy is cityward will be slow to admit that the introduction of what they will call newfangled notions and fads will arrest the lamented tendency. Up-to-date school inspectors, teachers and lecturers at Farmers' Institutes should use every opportunity to educate the people up to the best and highest aims and possibilities of education. Sir Wm. Macdonald's gift and the uses to which it is to be applied make the opportunity to introduce a discussion on the improvement of educational aims.

Schemes Nos. 1 and 2 outlined above propose to offer examples of model graded and ungraded schools for public inspection and instruction. We could wish that it had entered into the plan of our magnanimous benefactor to offer, instead of a merely academic nature-study school at Guelph, a model training-school which would be capable of turning out not only the travelling instructors referred to in scheme No. 2, but also regular teachers thoroughly competent to teach the traditional subjects as well as nature study and all by the best methods.

DOMESTIC ECONOMY.

Sir Wm. Macdonald's plan also proposes that the institution at the Agricultural College at Guelph shall provide residence for a hundred female students, not teachers alone, of domestic economy, with all the class-rooms, kitchen furniture and laboratories necessary for instruction in household science. The courses to be offered and provided for include dairying, poultry-keeping, beekeeping, fruit-growing, general gardening of flowers and vegetables, cooking and serving food, sewing, dressmaking, household decoration, and the proper care and hygiene of rooms, sinks, etc. The end in view is that our wives and daughters may know how to make and keep healthful, comfortable, clean, and beautiful homes.

Advantages of Graded Rural Schools.

BY WILLIAM IRWIN, I. P. S.

The system of consolidating rural schools by forming one school district out of the whole or part of a township, and having one large school building centrally located, containing several rooms, to and from which the children in the district are conveyed in vans, has been in practice in parts of several States of the Union for twenty years, and it has been found to work with satisfaction. With us the introduction of the system, therefore, need not be by way of experiment. We can safely adopt a system that for twenty years has commended itself to the intelligence of the people where it has been practiced, and can graft it upon our own with whatever improvements and changes experience would suggest and different conditions demand.

The advantages claimed for this system are many. Improved school buildings, with better equipment, heating, lighting, ventilation and sanitary arrangements would be provided. It insures the employment and retention of better teachers, and thus secures more permanency in the teaching profession. The pupils can be better classified and placed where they can work to the best advantage. It results in better attendance of pupils, and affords the broader companionship and culture that comes from association with large numbers. The children escape the bad effects of inclement weather and bad roads, and are under the supervision of responsible persons when on the roads, and thus the morals of the children are guarded.

It provides in the higher grades a High School course, and thus parents are saved the expense of sending their children to a High School, while at the same time they have their children at home under their own control, and the boys and girls remain in touch with the home life.

After the system has been instituted, the expenses of management are no greater, as fewer teachers are necessary, only one building to look after, and not so many sets of equipment are needed. In the higher grades, special work, under competent teachers, can be taken up to meet the requirements of agricultural life, and thus create a greater interest in farm work among the boys. This will counteract, to some extent, the present tendency of boys to leave the farm and

go into professions already overcrowded. It is a fact which we regret that a two or three years' course at a High School in any of our towns gives a boy a distaste for farm life, and in many cases the parents are put to the expense of providing him with means to prepare for a profession for which he may not be specially adapted. In this way there is withdrawn from the farm the capital expended and the boy who might have become a prosperous and successful farmer.

There are many other advantages which will no doubt occur to the reader, but these are some of the salient ones. In my opinion, the merits of this system will commend themselves to the observant and thinking public, and I have no doubt that in the next twenty years we shall have many of these district schools established in our counties.

Early or Late Calves: Which More Profitable?

The general opinion prevailing among breeders of cattle of both beef and dairy breeds appears to be that it is more profitable to have the bulk of the calves come from September to December. There is little doubt that with dairy cows this is preferable, as in winter butter brings the highest price and good cows pay well for the extra feed required to keep them in condition, while the calves can be conveniently and well grown during the winter and go out to grass in the spring, finding for themselves. The breeders of pure-bred beef-cattle who make a practice of showing calves at the fall fairs aim to have them come early in the fall in order to have them large and well-developed to show as under a year old, and there are generally a good many breeders ready to buy good young bulls at that age in order to have them ready for service about the end of the year or when they are about 14 or 15 months old. The impression also prevails that breeders plan to have their best cows produce their calves in the fall, in order that their calves may be shown to advantage at the fairs, and that as a rule the best of the young bulls in the country are brought out to the fairs. A little reflection, however, may upset this theory, since it is known that not all the best breeders or best herds are represented at the fairs, many having made their reputation in that way years ago and having retired from the show-ring, and many others being first-class breeders and extensive importers who have never made a practice of showing their cattle at the fairs. Moreover, the best cows frequently do not stand to the early service, and for this or other reasons produce a calf in the spring. And there are advantages in having a part of the cows calve at that season. The heifers that were born in the fall months will be about the right age to produce their first calves in the spring when 2½ years old. If bred to calve in the fall at 2 years old, they are too young, and if to come in in the following autumn, will be three years or over, which in these days of demand for early maturity may be considered older than is necessary. These heifers, and the same may be said of cows, can be wintered well on cheaper food when not milking. A prominent breeder of pure-bred beef cattle some time ago remarked that he found February, March and April calves most profitable, and on being asked for an explanation of the reasons why, replied in substance as follows: "Cows winter cheaply and well when carrying calves. Calves go to grass with dams in May. They come in in October, healthy, vigorous, and with well-developed stomachs and muscles. They thrive immensely on good feed up to, say, January or February. Buyers come wanting bulls 'not less than 12 to 20 months,' but I sell these younger calves to them. They usually have heavy, glossy coats of hair, and they look big. I have invariably made my best prices on late calves. I seldom have a late calf remain over with me. I frequently sell July calves among the early sales. I price the older calves to bring customers, when I know that it is the younger ones they will buy when they see them. Not one bull out of three looks well when 14 or 15 months old, and I count it ruinous to have to feed after they are 14 months old. If buyers won't give my prices when the bulls are young, I just take theirs. I count that bulls do not make any money, on an average, if kept till two years old. Some are not salable and some barely pay expenses. Others make big prices, but only a few. I like to let some one who needs them pay for the feed and take risks." There is much sound sense as well as shrewdness in this presentation of the matter, and while all may not be so situated that they can successfully raise the calves by pasturing them with their dams, owing to shortness of grass land, it cannot be disputed that the free exercise secured in this way makes the best possible foundation for a strong and vigorous constitution in the youngsters, and the practice is economical both in regards to labor and feed. The comfortable conclusion may then be arrived at that if it is not more profitable, it is at least no serious misfortune to have a percentage of late calves.

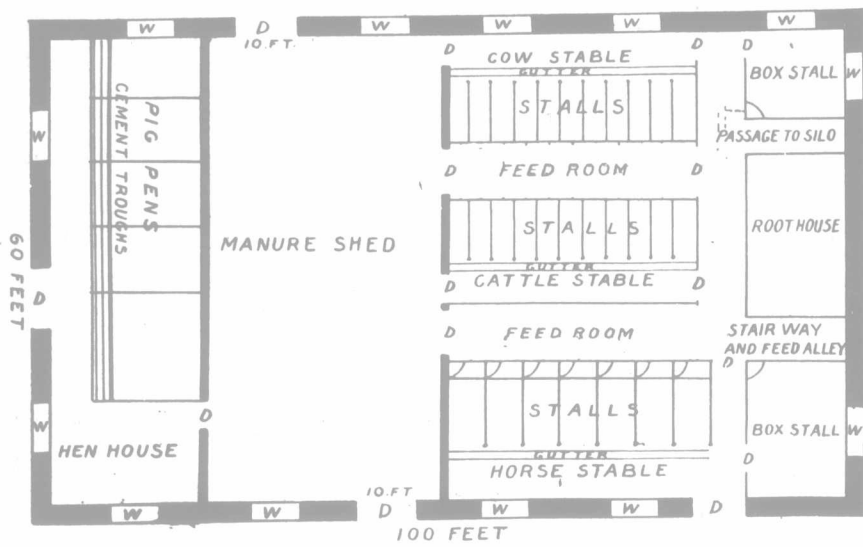
Fads in Breeding.

(From our Ontario and Eastern Edition.)

In an address before the short-course judging class at the Ontario Agricultural College, last month, Mr. J. C. Snell, of the "Farmer's Advocate," London, in speaking on the breeding and management of beef breeds of cattle, cautioned the class against being carried away by fads and fancies in breeding any class of stock, while neglecting qualities that are substantial and essential to the production and perpetuation of high-class performance in the particular line for which the animals are designed, and related the following incidents in his own experience: "It was back in the seventies, when the Bates boom in Shorthorns was on and many young breeders, and not a few older ones, were carried away with the idea that nothing but a Bates bull, and a red one, was worth breeding to. I went to Kentucky, a State then noted for fine Shorthorns, and bought the first-prize bull calf at the State Fair at Lexington, paying \$750 for him. He was all red, was trained all summer by the black herdsman to hold his head high and stretch his neck with a graceful curve like a blood horse; he was the son of a pure Duke bull and deeply bred in Bates blood, but he stood high on his legs, was short in his ribs and had short, wiry hair and a hard-handling hide, but he was Bates, and red and stylish, and so filled the bill for the faddists. I could have bought at the same time for \$400 a yearling bull that had won no prize, but which my better judgment told me was far and away a better one. He was low-set, blocky, thick-fleshed, and with the right sort of skin and hair, but he was not all Bates, nor all red, and was not stylish, though he had a good honest face, a short, thick neck, and strong masculine character. I left him with a feeling of sorrow, and took the stylish calf. Well, my bull paid me all right for the time being. He won first prize at the Provincial Exhibition as a yearling by a close call, but he never did it again; his calves sold readily at good prices while young, because they were like himself, red and stylish, and people were looking for that sort, but not one of his daughters even developed into a third-class cow. He lowered the character of the herd, and I was never entirely happy till I saw the tail of the last of his progeny go through the gate to the road. I watched with interest the career of the bull I left behind me, and found that he was purchased and used with signal success in his herd by that wise and consistent Kentucky breeder, William Warfield, who never allowed himself to follow the faddists, and who has outlived and outlasted all his contemporaries. He was shown with great success, and sired heifers that were first-prize and sweepstakes winners at many State Fairs when they had grown into grand cows. I am satisfied now that this bull, Muscatoon, would have been lots cheaper at \$1,000 than my Duke at \$400.

"On a second trip to Kentucky, some three years later, when I had learned a little from experience, on looking through Uncle Abe Renick's famous herd of Roses of Sharon, which were then in high favor and on which he was using a pure Bates Duke bull, and selling calves at anywhere from \$500 to \$1,000 each, I espied a thin red and white bull calf that had a good open countenance, was deep-bodied, level, and covered with a good coat of hair, and on enquiring why he was thin, the old gentleman told me that the calf was not sired by his Duke bull, though by a right good one, and they wanted to show his dam, so they weaned him young and fed him from the pail. Said he: 'I can't sell that calf for one quarter what he would bring if he had been got by the Duke bull. What will you give me for him?' I said, with no thought of getting him, 'I'll give you \$100 for him.' When saying good-bye, the old man sided up to me and said, in a low tone, 'I believe I'll let you have that calf.' I named him Loudon Duke, and by good care and attention brought him out a first-prize winner at the Provincial Fair as a yearling, and later a championship winner, and he stood at the head of the herd winning the Prince of Wales prize, while his sons and daughters grew into prizewinners, beating in more than one instance imported animals that had been winners at the Royal Show of England.

"Now, I would not have you go away with the idea that red is not a good Shorthorn color, for some of the best of the breed have been and are of that color, but see that the hair and handling is of that quality that denotes a good feeder and the flesh thickly laid on back and ribs. The harm in the craze for red bulls was that it led breeders to use a hard-haired, thin-fleshed, leggy red, and reject a roan or a white that had these good qualities. It was not because the cattle were Bates-bred that they were objectionable, for some of the best that have lived were of that line of breeding, and the blood was freely used in the evolution of the most popular cattle of the present day, but the trouble was that so many breeders would have Bates bulls because they were popular, and would use a mean bull of that breeding rather than a good one of some other that was just as purely bred. And style is by no means to be despised in a bull of any



BASEMENT PLAN OF R. CRONSBERRY'S BARN, YORK CO., ONT.

breed, for, other things being satisfactory, the bull that holds his head well up and has a strong crest and the look and walk of a gentleman is most likely to prove an impressive and a prepotent sire. The mistake is in attaching more importance to fancy points than to the weightier matters of constitution, feeding qualities and usefulness. Great damage has been done to many breeds of stock by reversing this order.

There was a time when swine breeders had a delusion for 'dished faces' and heavy jowls, and the first question asked as a description of a hog was, 'Has he a short nose and a dished face?' And if a Berkshire, 'Is he well marked?' instead of 'Has he a good back and hams and legs?' He might be defective in all these substantial points, but if his head was short and he had the proper amount of white on his feet, face and tail, though he were cat-hammed and had not a decent leg to stand on, he was preferred for a breeder. In 1871, I crossed the ocean with a Canadian who was bound to have a sow with the best head in Britain. He paid \$200 for one that suited him; her face was so short and her nose turned up at so sharp an angle that her eyes could scarcely be seen, while her jowls dragged on the ground. He learned after he had paid for her that owing to the bulk of her cheeks she could not eat her food out of any style of trough, and that it had to be rolled into balls in the hand and dropped into her mouth, which she lazily opened when her nose was gently tapped with the finger. A pillow of chaff had to be placed under her head to keep her from smothering, but in the car on the way up to Liverpool in the night, the owner, on waking from a temporary sleep, found the pillow had worked out from under the head of his butter-ball sow and she had slept the sleep that knows no waking. We had some of these dish-faced hogs in the cattle car coming up from Quebec on that trip, and at Belleville an Irish section-man, seeing one of them looking out through the bars, innocently asked, 'How did that pig get hurted?' He had doubtless in his younger days been at Donnybrook fair and had seen broken noses galore, the work of the blackthorn shillalah.

It is not many years since ninety-nine out of a hundred farmers would not be persuaded that a Jersey was pure bred that was not solid fawn in color and had not a black tongue and switch. You might 'tell that to the marines,' but they knew better, and lots of men, sane on most other points, wouldn't buy a Jersey cow with a white switch or a spot the size of a dollar, even if she were good for twenty pounds of butter in a week; but you could easily have palmed off on them half-breed that, was perfectly marked or a solid-colored cow that wouldn't half pay for her board. Indeed, it was not till after the World's Fair in 1893, when Ida Marigold, whose color was nearly one third white, won the championship by inspection, as well as in the milking test, that this delusion was dispelled from the minds of most people, but there are yet thousands of farmers who know their business so well that they have no use for an agricultural paper and who are cocksure that no Jersey can be pure-bred that is not solid-colored.

The Clydesdale breeders a few years ago got a fad in their heads for fine bone, and paid so little attention to the size that is needed in a draft horse that they brought out a class of pony Clydes, nervous and mettlesome and without a place to put their dinner, and the result was that in a few years, when heavy drafters were required for the export trade, they could not be found in Canada. The prejudice against gray horses has been persistent and long-lived, but how many farmers can say that the best horse they ever owned was not a gray one? Were not many of the best of the early Clydes grays, and was not that prince of harness horses, Old Messenger, whose progeny revolutionized the harness-horse stock of America, a gray? And when you hear or read of a horse living to an unusually advanced age, is he not almost invariably a gray?

Warming Drinking Water for Cows.

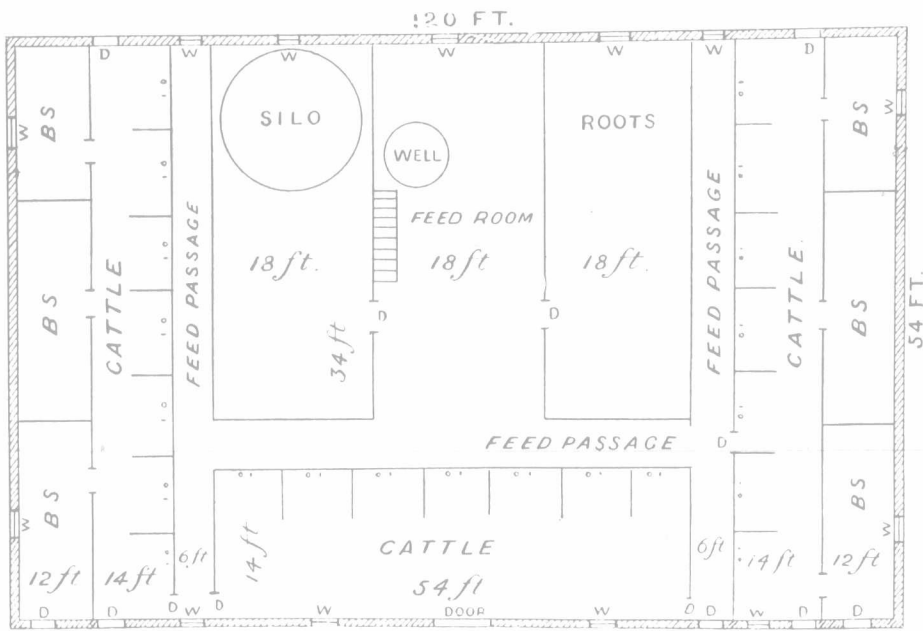
Experiments have demonstrated that by taking the chill off their drinking water, the milk yield of cows has been so largely increased as to pay many times over for the cost. On this subject the Farmers' Gazette, of recent date, has this to say: "Where large numbers of animals are kept it may seem a big order to go to the trouble of heating the water given to them. The ordeal is not, however, so big as it may appear, as all that is required to be done is to add a certain quantity of hot water to the ordinary supply about to be given to the animals.

The quantity so added need not be very much—just sufficient to take the chill off the contents of the troughs or other vessels in which water is being given. Dairymen in the neighborhood of towns, who find it necessary to keep up a full flow of milk all through the winter, find it a good practice to warm all the water given to their cows, experience having satisfied them that it pays well to go to the expense of doing so. The milk-yields of cows have been known to suffer very considerably through the consumption of large drafts of ice-cold water. Some dairymen make a point of having all the water given in their cows raised to a temperature of about 60 degrees. In our experience, however, it is not necessary to have it quite so warm as this, some very successful feeders of our acquaintance

cents apiece would be \$2. His profit, therefore, was \$2.93 on the expenditure of \$4.67—a very satisfactory percentage for less than four weeks. The experiment is only a further evidence of the wisdom of the farmers bringing their poultry to market properly finished. The farmer who sold the chickens a month ago got only twenty-five cents a pair for them—less than a quarter of their value when fattened. One thing is necessary for success, and that is to have good breeding, so as to get the frame to build on. With Plymouth Rocks, Mr. Moore believes he could have made even better showing.—Orillia (Ont.) Packet.

An Old Barn Made New.

The accompanying engravings illustrate how an old barn (74x30 ft.), with sills resting on the ground, was transformed into a modern structure by having ten feet added to one side and being raised upon cement concrete walls and the basement stable floored throughout with the same excellent material. It now contains storage room above for the crops (excepting, possibly, corn, which will probably ere long be stored in a silo) grown on the 70-acre farm of Mr. Jacob W. Manning, Middlesex Co., and in the stable space for twenty cattle and six horses, besides box-stall space (13x16 ft.) and room for carriages and roots. The two plans show clearly the arrangement above and below. The wide double approach on north side gives entrance to both barn floors, and below it wagons or other rigs or implements can be stored. Next the barn the ends of the bridge stringers are supported on a 4x4 inch oak sill, carried clear of the barn sill by strong iron hangers. The hay bay (28x30) is filled by horse fork from barn floor, and the east barn floor is filled with grain, also west bay and loft on poles over west barn floor. The space 10x42, south side, is left empty for straw at threshing time. Below eaves north side of hay bay is a door (4x6 ft.), opened for light or ventilation in harvest or threshing time, and on south side (opposite) a similar door (3½x3½ ft.). South of the east barn floor is another similar door, above the floor, and at south of west barn floor still another (8x8 ft.), the bottom of which is three feet above floor, so that there is no danger of horses or men stepping out, there being no approach on south side. Above the latter door is a gothic or dormer window in roof, six feet high and four feet wide, to be opened at threshing time. Mr. Manning considers that it was worth \$10 at the first threshing in relief



BASEMENT PLAN OF BARN BUILT BY J. C. SNELL, PEEL CO., ONT.

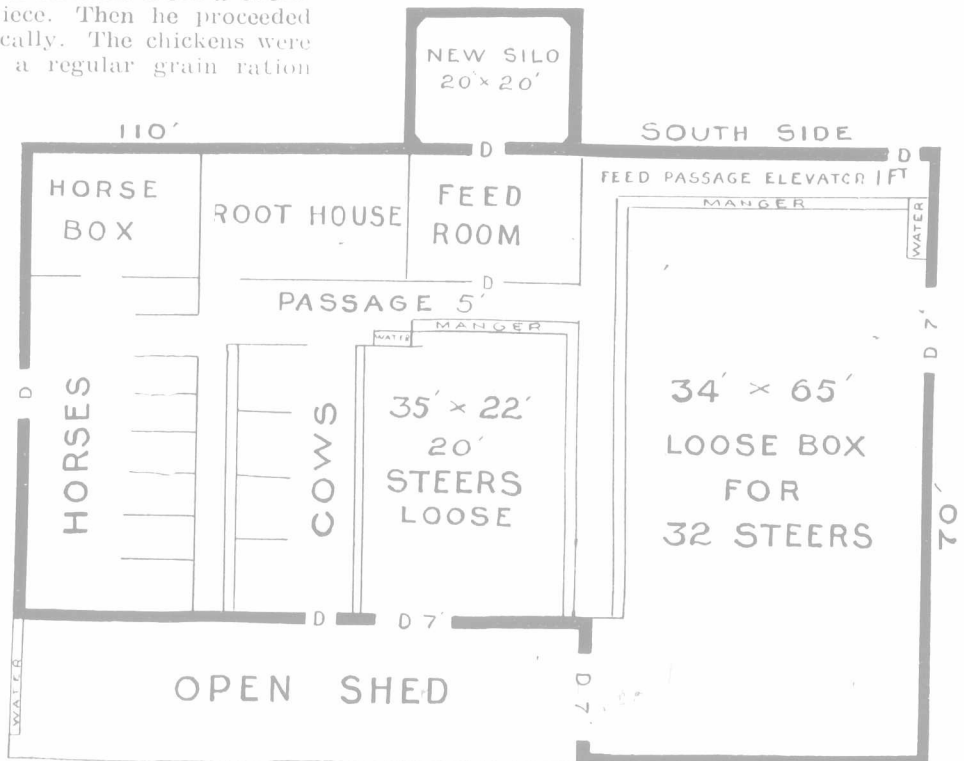
obtain excellent results by using water heated to only 48 degrees to 50 degrees, even in the very coldest weather."

Profit on 19 Chickens.

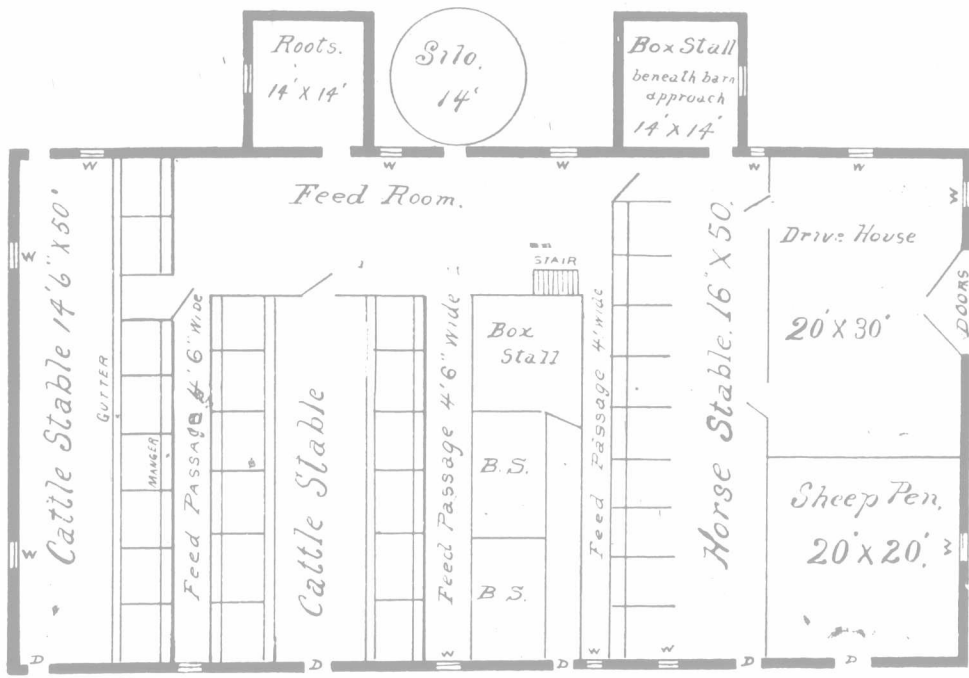
Mr. Chris. Moore last week gave the result of a practical experiment in chicken feeding carried on by himself. About ten days before Christmas he bought nineteen Brahma chickens from a butcher, at eighteen cents apiece. Then he proceeded to fatten them systematically. The chickens were well housed, were given a regular grain ration and abundance of soft food, and the water they drank, which was given them at the same hour every day, had the chill taken off it. Last week Mr. Moore killed the chickens. When dressed, they made a fine appearance, looking more like small turkeys than chickens. Fourteen of them weighed eighty pounds, which at seven cents a pound (they were easily worth a cent a pound more than ordinary birds) would be \$5.60, or eighty cents a pair—double the price paid for ordinary chickens. The nineteen chickens cost Mr. Moore \$3.42, and their food cost \$1.25, a total of \$4.67. Mr. Moore had five chickens for his own use, which at forty

from dust and discomfort. The granary, with 8-ft. ceiling, has capacity for 2,000 bushels of grain. From the east bins, oat and chop chutes, respectively, for horses and cattle, are run into basement passage (boxes marked "O" and "C" on plans). The main barn posts are 16 feet, and the roof has about square pitch. The hay chute (4x5 ft.) extends from floor to rafters. Galvanized-iron eavestrough carry off the roof water.

The basement ceiling is nine feet high and



BASEMENT PLAN OF ROBERT McMILLAN'S BARN, HURON CO., ONT.



BASEMENT PLAN OF A. C. STEWART'S BARN (100 X 54), MIDDLESEX CO., ONT.

floor is a trifle higher than ground outside, the stables being well lighted by 12 windows (made like house windows), each 2 ft. wide by 3 ft. 6 in. high, containing four lights 10x18 in. The window and door frames are sized. The east end stable doors open in and the west doors open out. The cattle stalls are four inches longer at east than west end. The manure gutter behind cattle is 16 in. wide, with a 6-in. drop at animals' heels and 4-in. drop next rear passage. Instead of a square edge at rear, Mr. Manning, however, strongly recommends a sloping one as being much easier to clean out. The cattle mangers have an 8-in. drop from feed-alley floor, are 20 ins. wide at top and 18 ins. at bottom, and next cattle is sloping plank, 1½x14 ins. Two boards on alley side of posts keep cattle from reaching into alley, and fodder is fed under the lower one through a 15-in. space. Cattle are watered in yard at present. Between horses and cattle the partition is close boarded to the ceiling, but both are fed from same feed alley. The hay chute is not open at south side. Horse mangers are 2 ft. wide at top and 18 ins. at bottom. The bottom is slatted and is six inches above stall floor, so that dirt and dust shake through and can be raked out easily into stall every few days. The horse-stall floors are two-inch plank on cement. The south wall of stable has a foundation of cement concrete to 18 inches above ground, above that it being double boarded, with tar paper between. The foundations go two feet in the ground. Ninety barrels Queenston and 12 barrels Portland cement were used. Dressed lumber was used for siding, and the barn was decidedly improved in appearance and durability by two good coats of paint. In cleaning out stables, the horse manure is loaded in bottom of sleigh, near south-side door of stable, and then the team take the sleigh through passage in rear of cattle, when the load is taken to field or pile, as circumstances require. The east side of box-stall space is formed by a gate which, on being swung back to wall, a team can pass through, as on north side of stable. One door of each set in basement is cut in halves so that upper part can be left open on warm days. Fresh air is brought in through a 4-in. tile under feed alley, with 3-in. laterals opening into each cattle manger.

New Chief Veterinary Inspector.

Dr. D. McEachran, of Montreal, has resigned his position as Dominion Veterinarian. He has been succeeded by Dr. J. G. Rutherford, ex-M. P. for Macdonald, Manitoba. The latter spent last year in Great Britain, testing for tuberculosis cattle intended for shipment to Canada. Dr. McEachran's services will be retained in an advisory capacity. He will act as honorary veterinarian, at a salary of \$1,000. Dr. Rutherford's salary will be the same as that paid to his predecessor, \$2,500 a year. For many years Dr. Rutherford was a successful veterinary practitioner at Portage la Prairie, is an enthusiastic horseman, taking at all times an active interest in the advancement of his profession, the breeding of improved live stock, as well as the public affairs of the country. A portrait of the Doctor appeared in our last Christmas number.

1902 Fair Dates.

Carberry.....	July 15 and 16
Portage la Prairie.....	July 17 to 19
Winnipeg Industrial.....	July 21 to 26
Brandon, Western Agriculture and Arts Association.....	July 29 to Aug. 1
Neepawa.....	Aug. 5 to 6

The annual meeting of the Provincial Mutual Hail Insurance Co. will be held in Winnipeg during Bouspiel week, on Thursday, Feb. 20th. C. J. Thomson is the manager.

Ayrshires in Pan-American Model Dairy.

I have read with interest the articles in the "Advocate" setting forth the achievements of the different breeds of cattle at the Model Dairy test at the Pan-American Exposition, and I have been disappointed to find that no abler pen than mine has recorded the success of the Ayrshires at Buffalo. Although the Ayrshires have carried off no great laurels, yet they have proved themselves to be the best all-around breed of cattle for the Canadian farmer who wants a cow whose milk in the summer time will bring him most profit for the manufacture of cheese, and in the winter the milk of which is equally valuable for the manufacture of butter. Now, in the result of the test published in the "Advocate" it is seen that the Ayrshires were high up in the production of both butter-fat and solids. The Guernseys were first, it is true, in the production of butter, but in the whole six months the record shows that the difference between them and the Ayrshires was the nominal sum of \$7.41. And if the price as feeding value of the skim milk had been taken into consideration, as it certainly ought, the Ayrshires would have headed the list with a good margin.

to suppose that a Shorthorn will continue to increase such weight to the same extent as it did during the first six months of the test.

STEWART CLELLAND.

Richmond Co., Que.

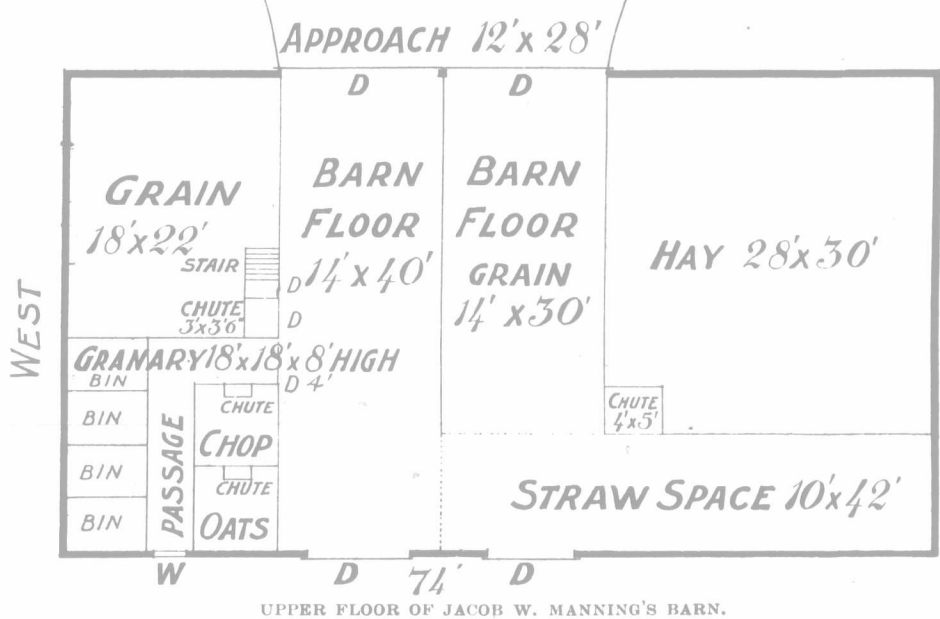
Promoting Health in Fowls in Winter.

BY JOHN B. PETTIT.

All poultrymen recognize the fact that without healthy, vigorous fowls it is impossible to have a profitable flock. Birds that are "enjoying poor health," as Samantha would put it, will lay no eggs, and a hen that does not lay is not a very good source of revenue for her owner. And the more keenly is this felt during the winter months, when most hens are "out on strike," and eggs are away up in price.

Many of the diseases that poultry fall a prey to are directly traceable to bad treatment and improper management, and it is in the winter time that such management is most prevalent and disease is more in evidence.

One of the surest promoters of disease in poultry is a damp house. To keep the best constructed poultry houses free from dampness is a problem that puzzles all poultry fanciers. But the average farm henhouse is not well constructed. Too often it has a poor, leaky roof, which allows the rain to come through whenever there is the slightest shower, and drip down on to the floor and form a pool, or to give the birds themselves a thorough drenching. Or it may be that a window glass is out and allows the rain and snowstorms to beat in upon the inhabitants of the building. The remedy for these evils does not have to be mentioned, but simple as it is, how often it is neglected! But in the best poultry houses the litter and ceiling and walls will soon get wet unless careful attention is given. The breath of the fowls during the night creates a steam which on cold nights adheres to the walls in the shape of frost. During a protracted spell of severe weather this coating would get quite thick if allowed to accumulate. To prevent this the building should have some of the windows open every day. Generally the interior of the building becomes warm enough in the day to melt this frost, and if the windows are open it will dry up as it melts, and thus the dampness is done away with, whereas if the building were kept closely shut up, the frost would melt, form into drops and run down into the litter and over the fowls and create a very unhealthy state of affairs. Then there are the cracks and



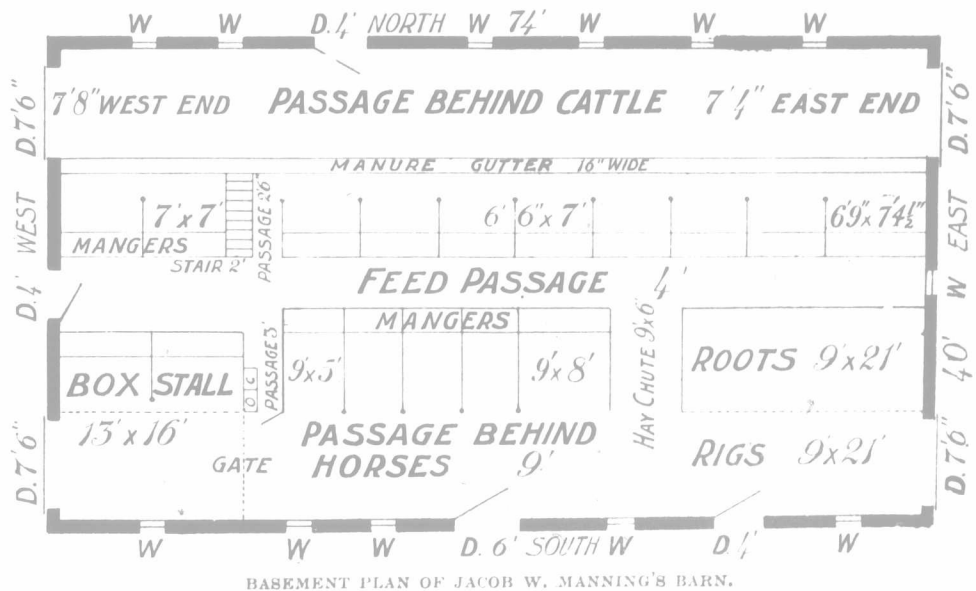
UPPER FLOOR OF JACOB W. MANNING'S BARN.

Again, it is seen that in the production of solids the Ayrshires came second. A great recommendation for the Ayrshire herd is its uniformity of production. A better example of this could not be found than the small difference in net profit shown between the best and poorest cow in the five Ayrshires composing the herd at Buffalo; the actual difference being \$7.37 for six months, whereas in every other herd a difference of double and in some cases even treble this sum is shown. Now, if such a material difference is shown in such a small herd, it is easy for farmers and dairymen to conceive the great difference there would be in a large herd. One feature of the test of which I did not approve was the allowance of three cents per pound for increase in live weight, which I consider of no value to a dairy cow. For instance, the Shorthorns showed an increase in weight of 802 pounds, which at three cents per pound credited them with \$24.06. Now, I fail to see how the breeder or owner of Shorthorns is going to realize the \$24.06 allowed to him for this increase in live weight during the test. I mention this because it was solely due to this superfluous increase in live weight that the Shorthorn was able to compare as favorably as it did with the strictly dairy breeds. And whilst a dairy cow will continue to give a profitable return each six months, it is absurd

knot holes in many buildings that allow drafts to blow in on the fowls and start colds, which often wind up with that dread disease, roup, sweeping away the whole flock.

The cleanliness of the house must also be looked after. The dropping-boards should be cleaned off at least twice per week, and sometimes three times would not be too often. Our main poultry house is 72 feet long, having six departments, and consequently six roosts, and these can all be cleaned in twenty minutes. So it can be seen that it doesn't take a great amount of time to do this work. After each cleaning sprinkle a little fine dirt, ashes or sawdust on the boards, and you will find that it saves more than half the time needed in cleaning, as well as assisting in keeping down bad odors.

Do not fail to supply lots of grit to poultry in



BASEMENT PLAN OF JACOB W. MANNING'S BARN.

winter. It must be remembered that it is by means of this and this only that fowls can grind up their food, and if the grain and other food is not properly masticated, disease will very soon be the result. Crushed oyster shell and fine gravel, secured by sifting through a sieve, or any such grit will do. But do not compel a hen to eat pieces of broken glass. There is danger of serious injury resulting from such a practice. In the summer you will notice that biddy at times relishes a bit of gravel as much as a grain of corn. But these are hidden under the snow in winter, and we have to supply her with something to take their place as best we can.

Care should be exercised in supplying drinking water. All that some fowls get in winter with which to quench their thirst is snow to eat or the drainings from the barnyard. Is it any wonder that "dung-hill" poultry are very often unhealthy? Poultry should have clean, fresh water every day, and plenty of it. It should be given in receptacles that they cannot get their feet into, and these vessels should be emptied every night. In very severe weather in winter the chill should be taken off the water when first given in the morning, to assist in warming the birds up.

Two other things which should be provided are a dust box and green food of some kind. The best material for the former is road dust. If this cannot be secured, use finely-sifted coal ashes. For green food use cabbage or mangels and sugar beets, or all three. These aid digestion, and must be used if egg production is desired.

Would the breeders of poultry try to at least partially follow these few hints on keeping health in the flock, we believe that there would be less chance of disease, and that their observance, connected with plenty of exercise, will produce hardy, healthy, and profitable poultry.

Why Bees Swarm.

BY MORLEY PETTIT.

It is the nature of all living things to "be fruitful and multiply and replenish the earth," and numerous and varied are the modes of reproduction. Eminent scientists have devoted years of their lives to this study. Not the least interesting method of increase is that of the honey-bee. It is twofold, involving increase of population of the individual colony and increase of colonies by voluntary division, which latter method is called swarming. The phenomenon of swarming may in its first stage be compared to the escape of steam from a safety-valve. The pressure is relieved when about two-thirds of the colony, accompanied by the queen, has issued from the hive. The swarm usually alights and clusters for a time on a neighboring tree, then goes to the woods if not "hived" by the watchful apiarist. The remaining bees in the "parent hive" soon have a new queen and in course of time regain their original population, and the apiary is increased by one.

It is impossible to foretell with accuracy the advent of a swarm, hence in the swarming season, unless artificial means are used to prevent swarms, an attendant must be constantly in the apiary. With the modern system of keeping bees in numerous out-apiaries, such attention is very expensive, and a great deal of thought is at present being given to the complete prevention of natural swarming. This can only be attained by becoming acquainted with the conditions under which bees swarm, and then preventing these conditions. It is an acknowledged fact that under the same conditions some bees swarm more than others, hence it may be safely inferred that swarming arises primarily from a divinely-imprinted instinct, stronger in some races than in others. Other qualities being equal, it is obvious which race is preferable. Aside from instinct, there are a number of conditions which usually accompany the "swarming fever," as the desire to swarm is commonly called. Some of these I have tabulated.

(a) The super is crowded with honey, there is still plenty of nectar in the flowers; but the bees have no comb-space in which to store it, not even in the brood chamber, for they soon fill the space there not already occupied by brood, eggs and pollen. Then if the honey-flow continues they invariably prepare to swarm. Super space in the form of frames and starters, or even full sheets of foundation, seldom helps matters. They may work at them, but if they have not swarmed already that season they will soon.

(b) The colony has a queen with great egg-laying powers; but the brood-chamber is too small for her or has been crowded with honey and pollen, so that she has an egg or a larva in every cell and young bees are not emerging from their cells rapidly enough to satisfy her desire and ability to replace them with eggs. The constant inflow of honey from the fields is stimulating her to lay, yet she must be idle or seek a new home with a wider field of usefulness.

(c) The secretion of nectar in the flowers is continuous but slow. The queen is constantly stimulated by the incoming sweet to lay, while the demands of the harvest are so light that the workers live much longer than is usual in har-

vest, and the hive becomes over-populated and crowded.

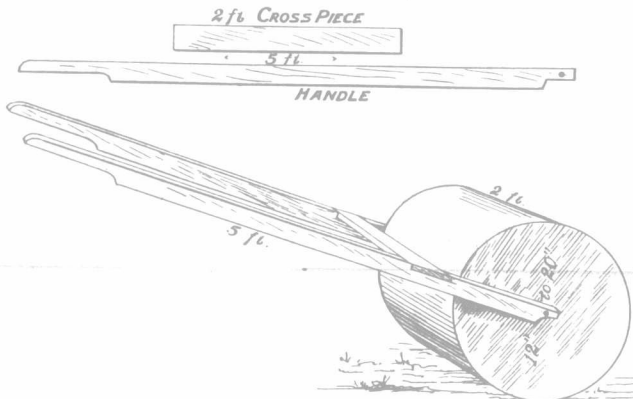
(d) The hive is poorly ventilated or is without sufficient protection from the direct rays of the sun.

(e) Bees often swarm when they are superseding their queen.

Another kind of swarming called "swarming out" is not for increase, but because the bees are dissatisfied, and the colony does not divide, but simply deserts the hive. They may be starving, and think to better themselves by going elsewhere. The hive may be too cold and open, or the combs may be soiled and filthy from dysentery in spring. Sometimes the entrance is too large and sometimes too small, or perhaps the colony is simply weak and discouraged. It is usually in the chilly days of spring that bees "swarm out," and they often try to get into other hives.

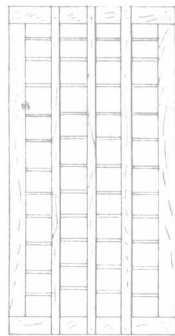
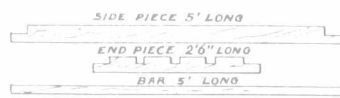
Preparing for Spring.

There are many things that can be done and planned for during the winter months, when time is not so precious as later on in the spring, to extend the growing season and help to make gardening a success. One way is to make a plan of the garden, allotting the parts found most suitable for certain crops the previous season, as



A HANDY GARDEN ROLLER.

though planning out the ground instead of on paper. I have found this to be a great help to me the past four years, as it saves me a lot of worry later on and I know fairly well how much seed, fertilizer and time it would take to prepare and plant the garden. Another useful thing to do is to study up the subject as much as possible and select from the catalogues the varieties you propose planting, and send for the seed required as soon after January as you can, before the spring rush commences. But the preparation of tools and adjuncts for garden work is the subject I will call your attention to. These two useful and cheap homemade contrivances, namely, a hotbed sash and hand roller, are made on a plan that I practice but have not seen published before. A hotbed sash comes very expensive, comparatively, when ordered ready made, but by this plan a very effective sash can be made in spare hours by anyone that can handle tools. It may be a rough job, but for strength and utility is all right. All material should be well planed and joined. Take a two-inch pine plank and rip it up in pieces three inches wide; halve the ends and join them, using wire nails, well clinched. When the four pieces are nailed together and squared, divide the end pieces for the bars. The



SASH COMPLETED, SHOWING HOW BARS ARE LET IN.

bars can be an inch square, ripped out of pine board. Cut three slots in the end pieces, an inch wide and chisel them out; then bed the bars, making them so they will fit tight; nail them in with wire shingle-nails, when the sash will look something like the following sketch. Then rip a couple of laths in two and plane them and tack on the center of the bars on the opposite side from which they are inserted; this is to keep the glass apart. Give the sash a coat or two of paint, and it is ready for the glass. I find that waste glass and strips such as you can get at any hardware or paint shop for little or nothing, when cut to the proper width and set in, is quite satisfactory and the loss from breakage is not felt so much as larger-sized glass would be. Small brads can be used to hold the glass, or glazier's points and putty. All the material for

the sash ought not to cost more than 25 or 30 cents, except paint and putty. The roller here shown is a very handy implement for firming the ground after the seed is sown, so as to hold the moisture till the seeds are up. Two pieces of 1 1/2 board or plank cut in the shape shown make the handles. The roller can be cut off a round log over a foot (two feet is better) in thickness. Peel off the bark, and smooth it as much as possible, using the plane to take off all lumps and straighten it. Two large wire spikes are then procured, and holes bored in the end of the handles; the spikes are then driven through the holes into the center of the roller. A piece of planed board can then be nailed across the handles, close enough to the roller to knock off any lumps of clay that would likely stick to it, and the roller is finished, except for painting; a dark color is most suitable. Indian red or brown stone are good colors for sashes or tools. These two ways of making articles are not for the benefit of the man who farms for fun and has plenty of means, but to the everyday working farmer, gardener or amateur I trust this description may be of some value. I may contribute something on two other homemade appliances in the near future if the editor will bear with me as he has with my former contributions.

E. MACKINLAY.

Creseus at Home.

Creseus arrived home at Toledo, O., Jan. 8, and in answer to an inquiry as to whether or not the stallion king had trotted his last fast mile, Mr. Ketcham said: "I am not fully prepared to answer that. If I find that the horse is in good condition along about the middle of next August, I do not think it unlikely that he will be allowed to give a few exhibitions at different places. Until that time he will be kept busy at the farm." Mr. Ketcham said in addition to this, however, that Creseus would, under no consideration, take part in another race. His days of battling against other horses are over. He has met and defeated them all, and the only opponent that he will ever fight again will be the watch. It is evident that his owner has not yet given up hope of reaching the long-sought two-minute mark, and it is quite likely that he will be seen making the attempt next fall if his condition is satisfactory to Mr. Ketcham.

Address Label Important.

We desire every subscriber to note carefully the date on the address label on the paper in order to see that due credit has been given for remittance. If same is not correct, write us at once, giving full particulars as to amount of remittance, date of sending, and whether sent by registered letter, money order, or an ordinary letter. We do not hold ourselves responsible for moneys sent in the latter way. The date on your label serves as your receipt, showing the date up to which your subscription is paid.

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
- 2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.
- 3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
- 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary. SCRATCHES.

Please tell me, through your valuable paper, what is a good cure for scratches? J. L.

Ans.—We quote from Veterinary Elements (price \$1.50 at this office): "The parts should be thoroughly cleansed with warm water and castile soap, well dried and some clean sweet fat (unsalted) rubbed in; a little iodoform and boracic acid can be mixed with the lard, in the proportion of one to ten. In many cases a physic ball should be administered and the system depleted of waste material, thus cleansing the blood."

MAMMITIS BEFORE PARTURITION.

We have an Ayrshire heifer, coming three years old; expect her to calve soon; udder caked and swollen tremendously. She has a swelling under her belly. We have tried to milk her, but get nothing but bloody milk, and little of that. She is in good health otherwise. We are careful not to feed much but hay and straw. What else can be done? We want to save her, if possible.

D. H.

Inflammation of the udder sometimes occurs before parturition. The swelling along the abdomen need cause no alarm. Give her a pound of Epsom salts dissolved in a quart of water, and feed very lightly on dry food until about a week after calving. Bathe the udder long and often with warm water, or, better still, arrange a suspensory bandage to enclose the udder and fasten

over the loins and hips, and apply a warm poultice of bran or other material to be kept up to the udder by the bandage. Keep the poultice warm and exclude all drafts. After bathing, or when changing poultices, rub the udder well with carbolated oil, made as follows: Put a pint of sweet oil in a jar and put therein six drams gum camphor; place the jar in a warm-water bath and allow it to remain until the camphor is dissolved. Do not try to milk until after parturition.

STRINGHALT.

I have a colt rising three years old. We plowed with him a while in the fall, but have done nothing with him since. He has been standing in the stable all the time since we stopped plowing. Lately he is showing symptoms of stringhalt, lifting his feet up high when he moves around in stall. Can you tell me the cause, also give remedy?
E. S.

Ans.—Your colt is certainly affected with a form of chorea, known as stringhalt. It is purely a nervous disease, due to an affection of the spinal cord. The violent movements of the legs are involuntary and uncontrollable. In most cases it is a progressive disease, and the symptoms are usually more marked in cold weather. You certainly have adopted a very poor plan in keeping the colt standing constantly in the stable since plowing ceased. This may have been more or less the cause of the trouble. I would advise you to give him a purgative of about 8 drs. Barbadoes aloes and 2 drs. ginger. Feed bran only until purgation commences. After the bowels regain their normal condition, give regular exercise and give 3-dr. doses of bromide of potassium in damp food three times daily for four or five weeks. As the disease is of recent occurrence, has not become chronic, and has probably been induced by idleness, there is a slight probability that the above treatment may effect a cure.

MUSCULAR TUBERCULOSIS.

I have a very fine beef cow, about eight years old. About two years ago lump came upon soft part of her neck or throat, about half way between the jaw bones; used to break and run freely; would heal up, and break again. After a few months' standing, applied a poultice and removed the lump entirely, but, shortly after, lumps came in various parts of the fore legs, especially on the forearms, and on the back part of knee joint. These lumps are about as large as a robin's egg, and are not attached to the bone or flesh, and are not at all sore to work with. Would the cow be fit for beef in such a state? If not, could you prescribe a remedy?
SUBSCRIBER.

Ans.—Symptoms given indicate muscular tuberculosis. The cow is certainly affected with a persistent eruptive disease. The absence of soreness in the lumps and the nature of the contents all point to tuberculosis. Her flesh would certainly be unfit for human food, and I do not consider her a safe animal to breed, nor yet to have among other cattle, and as there is little prospect of effecting a cure (for even though each lump were removed by an operation, it is very probable others would form), I would advise you to destroy her and burn the carcass.

CRACKED HEELS.

I have a driving mare whose heels are cracked most all the time. The cracks are dry and scaly, and sometimes matter comes from them. Her hind legs are swollen badly at times, more so when she stands in the stable for a couple of days. What treatment do you advise?
SUBSCRIBER.

Ans.—Chronic cracked heels or scratches such as your mare has is tedious to treat. Give her a feed of bran only (no hay) at night. In the morning give a purgative ball of 8 drs. Barbadoes aloes and 2 drs. ginger, then feed nothing but bran and give water in small quantities until purgation commences, after which feed hay and a little grain. After the bowels regain their condition, feed 1½ ozs. Fowler's solution of arsenic in her bran or chop twice daily. Poultice the heels with boiled turnips to which is added a little powdered charcoal. Apply the poultices warm and change three times daily for three days and two nights. This will soften and remove all scales and scruff. If there be any cracks from which matter is exuding, dress once daily for two or three days with butter of antimony applied with a feather. Then apply three times daily a little of the following ointment: Boracic acid, 4 drs.; carbolic acid, 20 drops; vaseline, 2 ozs.; mix. If possible, give her rest in a box stall.

TORPIDITY OF THE KIDNEYS.

I have three horses, all passing thick, milky urine. They are all right otherwise. Kindly let me know in your next paper the proper medicine to get for them?
E. R.

Ans.—The condition you mention is due to a torpidity or partially nonactive condition of the kidneys. Get ¼ lb. each of saltpetre and powdered resin, mix well, and give each horse a tablespoonful in boiled food or dampened chop or bran every night for three doses. If this should not have the desired effect, repeat the treatment after one week.

GASTRITIS IN MARE.

Working mare, six years old, apparently in good health in evening, next morning very sick, breathing heavily, foaming at mouth and trembling in breast and shoulders; lived but 25 minutes. On opening, found probably 40 bots, which were not hanging to stomach; in separating food from stomach the inside lining came off and remained with the contents of stomach. Would these symptoms indicate any disease, or could poison have been the cause of death?
British Columbia.

H. B.

Ans.—Your mare died from gastritis, or inflammation of the lining membrane of the stomach. This disease may be caused by chills, changes in the weather, large drafts of cold water when the animal is very warm, irritating food, etc.; in fact, it is produced by about the same causes as the different forms of colic. The presence of the bots in the stomach was a normal condition, and had no connection with the disease or its results.

LUMP ON COLT'S JAW (OSTEA POROSIS).

I have a colt, coming three years old next May, that took a swelling in left jaw, under the eye, last June; ran down six inches, crossed back teeth; lump was hard on outside, grew (like a turnip) to a point; was treated by a V. S. in September; kept blistering for a month. It kept growing larger; called in a second V. S. in October, who pronounced it lump jaw. Flesh had grown on teeth, which V. S. No. 2 burnt off; both eyes were affected, running water part of the time. Six weeks ago lump burst and discharged for two weeks and dried up; is discharging a little at present. A SUBSCRIBER.

Ans.—From symptoms given, I would say that your colt has an incurable disease known to the profession as "ostea porosis, or big head." In this disease the bone becomes porous, increases greatly in size, but very little in weight. It resembles in some particulars lump jaw in cattle, but is not the same disease. Your veterinarians have done all that can be done, and unless improvement can be noticed soon, it will be better to destroy the animal.

SUSPICIOUS COUGH AND DISCHARGE FROM NOSTRILS.

I have a horse, 13 years old, with a discharge from nostrils of a thick white or yellowish color, and sometimes it is thin and watery and of a green or bluish color; with a dry, hacking cough, especially noticeable in the mornings on going into the stable. Has been so since last April; has a good appetite and eats well, but does not keep in good condition. What is the cause, and what would be the cure?
OLD SUBSCRIBER.

Ans.—There are so many diseases in which the symptoms described are present that it is impossible to diagnose without a careful personal examination. I advise you to have your horse examined by a competent veterinarian without delay. The symptoms simulate those often seen in glanders, and if it be this loathsome disease, the animal must be destroyed. Your veterinarian will be able to diagnose the disease, and if there be any reasonable hopes of a cure will give treatment.

LAME FILLY.

I have a two-year-old colt that took very lame about six weeks ago, in her shoulder, while running in the pasture. Her shoulder was slightly swollen at first; but now the swelling has disappeared, but she still remains quite lame. I took her to a veterinary about two weeks ago. He said it was caused from a strain. He gave me some liniment to apply, and said she would be all right in a short time. But I do not see much improvement. Will you please give your opinion, and what to do for it?
SUBSCRIBER.

Ans.—From symptoms given, I infer that there is no doubt about the seat of lameness, neither is there any doubt about it being a sprain. Injuries of this kind are frequently tedious or slow in making a recovery. I would advise you to blister the parts with 1½ drs. each of powdered cantharides and biniodide of mercury, well mixed with 2 ozs. vaseline. Clip the hair off the parts, rub blister well in. Tie her head so that she cannot bite the parts. In 24 hours rub well again, and in 24 hours longer wash off and apply some sweet oil or vaseline; let her head down now, and oil the parts every day until the scale comes off, when, if necessary, blister again. Repeat the blister every month until a cure is effected.

BLACK LAMBS.

I bought a registered Shropshire ram from a prominent breeder, bred him to my flock of pure-bred Shropshire ewes, and out of 42 lambs 14 were solid black, which occasions heavy loss to me. Have I any claim for redress from the breeder from whom I got the ram?
SHEEP BREEDER.

Ans.—It is an unusual circumstance. We have known occasional black lambs to come from pure-bred parents, but seldom more than two or three in a crop of 50 or 60 lambs. Can any of our readers account for the freak? The question of redress, it appears to us, should be a matter of compromise, since while one may charge it to the ram, the other may blame the ewes, and both may be right or wrong.

ABOUT DOCKING COLTS.

1. What is the best age to dock a colt? 2. What is the best time of the year to perform it? 3. Is it against the law to do so? S. J. R.
Ans.—1. From two weeks to two months old. 2. In moderate weather, when it is neither excessively hot nor excessively cold. 3. No.

Miscellaneous.

HARDY GOOSEBERRY AND VIRGINIA CREEPER.

I have been trying for a number of years to grow cultivated gooseberries, with the result that the bushes have killed down during the winter. Are there any varieties sufficiently hardy for this country? The Virginia creeper we have freezes back severely each year. I understand that other parties have them quite hardy. Can you explain this?
MRS. H. I. Pipestone.

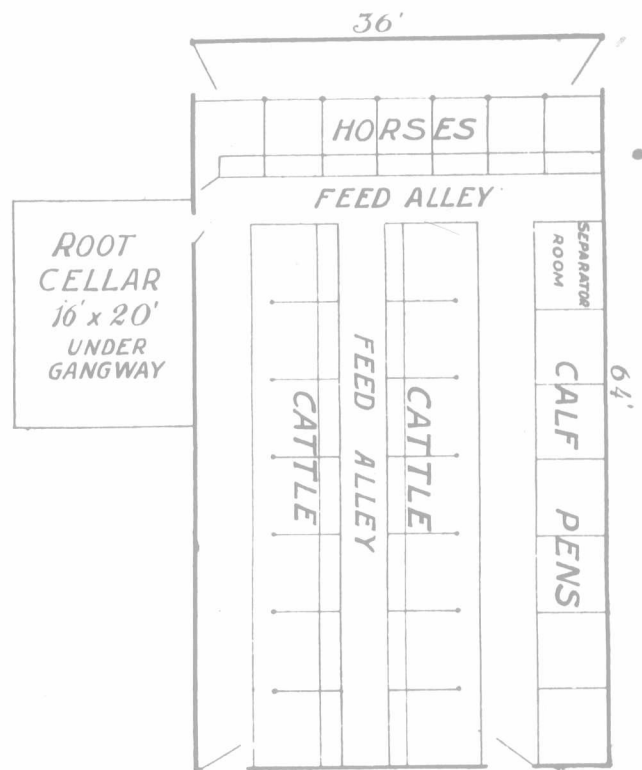
Ans.—The following gooseberries we find perfectly hardy with us: Houghton and Smith's Improved. In all probability your Virginia creeper is from eastern stock. These often prove tender in Manitoba and the Northwest. We shall be glad to supply you with a few roots of the native variety.
S. A. BEDFORD, Supt. Brandon Experimental Farm.

ARRANGEMENT OF STABLE.

1. I intend to remodel my barn next spring, and would like very much if you could give me some information about laying out the stabling so as to make it as handy as possible for choring. My barn will be 36x64 feet inside of wall. I would like to have about twenty-five head of grown cattle and have them tied, also calves and horses. I have six horses at present, but intend to have eight or nine. Also a room for cream separator and root-house.

2. Would like to know if boiling grain (peas and barley) for pigs is as good for them as getting it ground?
J. Y.

Ans.—1. The sketch we give shows a plan of stable with room for seven horses, 27 cattle tied up, six boxes for calves, and a separator room. Three of the double cattle stalls are six feet wide, the others are seven feet. The passages behind the cattle are 5½ feet wide, the feed passage



5 feet. A couple of colts could be tied in a cattle stall if more horses are kept than the stable will hold. More room could have been made by having horses stand with heads to the wall and feed from behind or above. It is much handier and safer, however, to feed from the front. The front of horse stable should be boarded tight to ceiling, so as to be shut off completely from the cow stable. By having chutes for hay coming down into the feed passages, feeding could be done conveniently. We could find no room inside for cellar, and so suggest what is quite common now, building it in the gangway.

2. Authorities now agree that cooking adds nothing to the value of grain for stock. Boiling would soften the grain, though, so that pigs could chew it more easily, and it would be as good for them as if ground. Some small amount, however, would be wasted by being swallowed whole and passing through them undigested.

GRAY TURKEYS WANTED.

Would you please inform me of anyone keeping the English gray turkeys, as I would like very much to get some?
H. T. PETERSEN, Vancouver District, B. C.

Ans.—Some person having this class of birds should advertise them in the "Farmer's Advocate."

PASTURE FOR HOGS.

I would like to grow some cheaper summer feed than grain for my hogs. What do you think of Essex dwarf rape for this purpose? Is there anything better that you know of?

Melita. J. B.

Ans.—Rape is excellent for the purpose you mention. The season in which rape is available is rather short in this country, and includes only the late summer and fall months. On the Experimental Farm we have been testing Brome grass pasture for this purpose with excellent results. This pasture is available from early spring to late fall, and appears to keep the hogs in good health and in a thrifty condition.

S. A. BEDFORD.

AILMENT IN CALVES AND PIGS.

Calves at six months old take a fever. Urine clear and manure soft; nose very hot and dry, with great fever. Do what we can for them, they die. This in hot, dry weather. Pigs cough now and then. Pigs blow like a broken-winded horse, at three months old. They eat well and seem to be healthy.

R. L.

British Columbia.

Ans.—Calves should be kept in a clean, well-bedded, well-ventilated, darkened shed by day in summer when weather is hot and flies troublesome, and fed a light ration of bran and ground oats. If signs of fever appear, give a dose of castor oil and follow with a raw fresh egg or two daily, shell and all, for a few days. For cough in pigs give greasy food or raw linseed oil in food; give exercise and access to the ground or to ashes, charcoal or grit of some sort. Pigs that blow and puff have "thumps," caused by lack of exercise and too rich food. To prevent this, get them out on the ground in fine weather and compel gentle exercise. To cure, use the same treatment as above.

HAMPSHIRE SHEEP.

Would like to learn, through your paper, what is the difference between the Hampshire Down and Suffolk Down sheep, and if they are a good sheep to invest in, or how do they compare with the Oxford Down or Shropshire?

J. B.

Ans.—The Hampshires are much like the Suffolk Downs, have strong heads, jet black faces and legs, and are rather larger, as a rule, than the Suffolks, being nearer the size of the Oxfords. The average weight of rams at maturity and in good flesh may be put at 250 lbs., and ewes at 200 lbs., but in show condition choice specimens may go 100 lbs. over these weights. The length and quality of fleece is about the same as that of the Suffolk and finer than the Oxfords. They have good early-maturing qualities, the ewes being great milkers, bringing their lambs forward rapidly. Probably no breed of sheep show such large lambs at four to eight months old. The rams make an excellent cross on common or long-wooled ewes, the cross-bred lambs growing very large and maturing early. The flesh of the Hampshire is well mixed, the lean with the fat, and is juicy and much in favor with the English butchers and feeders.

FARM GOSSIP.

Grain for Seed Improvement.

To the Editor "Farmer's Advocate":

Sir,—Another distribution will be made this season of samples of the most productive sorts of grain to Canadian farmers for the improvement of seed. The stock is of the very best and has been secured by the Director of the Experimental Farms from the record-breaking crops recently had in the Canadian Northwest. It will be worth while for farmers generally to renew their seed of oats when varieties which have produced more than 100 bushels per acre can be had. The distribution this spring will consist of samples of oats, spring wheat, barley, field peas, Indian corn, and potatoes. Every farmer may apply, but only one sample can be sent to each applicant, hence if an individual receives a sample of oats he cannot also receive one of wheat, barley or potatoes, and applications for more than one sample for one household cannot be entertained. These samples will be sent free of charge through the mail. Applications should be addressed to the Director of Experimental Farms, Ottawa, and may be sent in any time before the 15th of March, after which the lists will be closed, so that all the samples asked for may be sent out in good time for sowing. Parties writing should mention the sort of variety they would prefer, and should the available stock of the kind asked for be exhausted, some other good sort will be sent in its place.

W. M. SAUNDERS,
Director Experimental Farms.

Ottawa, Jan. 15th, 1902.

Most Valuable.

Sir,—I take pleasure in acknowledging the receipt of copies of the Christmas number of the "Farmer's Advocate" which you kindly sent. I consider your paper most valuable, and in proof of my opinion I have taken the liberty of making many excerpts from it in the report of this Department now being issued, a copy of which will be sent to you in due course.

I have the honor to be, sir,

Your obedient servant,

J. R. ANDERSON,

Deputy Minister of Agriculture.

Victoria, B. C.

Hay for Klondyke.

In Mr. R. M. Palmer's recent article on "British Columbia Agriculture in 1901," it was stated that 70,000 tons of hay were required annually for the Klondyke. It should have read 10,000.

Macdonald Seed Grain Competition.

The selections of wheat and oats received from competitors in the "Seed Grain Competition" for which Sir William C. Macdonald, of Montreal, donated the sum of \$10,000, to be distributed in prizes, have been examined. The competitions are being conducted on about 800 farms throughout Canada. These prizes are awarded to boys and girls who have performed specified work in connection with the selection of seed grain. A set of prizes was arranged for each province in the Dominion, the Northwest Territories being considered as one province for this purpose.

The selections received for the yearly competition of 1901, each contained 100 selected heads of the variety with which the competitor is operating. Twenty-five points were given for every gram (by weight) of grain of good quality contained in those 100 heads, and one point was given for each and every grain which the 100 heads contained.

The expressions of appreciation which have been received from the parents and teachers of many of the boys and girls who have undertaken the work of managing a seed-grain plot have been most gratifying. The "nature study" connected with the selecting of seed grain according to the system which competitors are asked to follow will be as helpful as it has been interesting. I am convinced that a systematically continued selection of seed grain from the most vigorous and productive plants in the plots will lead to great improvement in the crops throughout the whole country.

The educational influence of the "Seed Grain Competition" is having a fine effect upon the boys and girls whose school years are nearly ended. These boys and girls may not again have an inducement sufficient to awaken and to develop a liking for careful and educational study of nature and nature's methods.

As is now well known, Macdonald Manual Training Schools have been started in seventeen cities or towns in Canada as object lessons of improvement and progress in educational aims and methods in public schools. The cordial and enthusiastic welcome which they have received from all connected with the schools and school systems of the various provinces have been a source of deep pleasure and satisfaction to Sir William C. Macdonald and myself. It is our desire and hope that the plan now about to be begun for the purpose of assisting in the improvement of education at rural schools by means of school gardens, manual training and household science may bring real and lasting benefits to all in rural communities.

The cheques for the prizes for 1901 have been sent to the boys and girls. Some of these who did not receive a prize in the yearly competition of 1901 may win a prize in the main three-year competition which ends with the season of 1902.

The names of the successful competitors are on the following lists, in the order given, there being ten prizes: \$25, \$20, \$15, \$12, \$10, \$8, \$5, \$5, \$5, \$5.

JAS. W. ROBERTSON.

LIST OF SUCCESSFUL COMPETITORS.

SPRING WHEAT (MANITOBA).

- Rowland C. Lumb.....Cartwright
- Gwenydd G. A. Lumb.....Cartwright
- George and Mary Hampton.....Rapid City
- Stewart E. Sherris.....Rapid City
- George Doney.....Thornhill
- J. Cundy, Jr.....Rapid City
- Hugh Thompson.....Roden
- Andrew Thompson.....Roden
- Evelyn Cundy.....Rapid City
- Ernest Borland.....Clear Springs

OATS (MANITOBA).

- George and Mary E. Hampton.....Rapid City
- F. & R. Lundgreen.....Scandinavia
- Andrew Thompson.....Roden
- George Dow.....Gilbert Plains
- Earl A. L. McLaughlin.....Stockton Station
- John Wells.....Roland
- Thos. McKeand.....Medford
- Marion Sherris.....Rapid City
- C. & E. Lundgreen.....Scandinavia
- John S. McBain.....Portage la Prairie

SPRING WHEAT (N.-W. T.).

- Edith Fraser.....Steep Creek
- Marie L. Ripand.....Duck Lake
- Silas E. Wheeler.....Penhold
- Peter R. Abrams.....Rosthern
- S. Kirkham.....Saltcoats
- Emma Wheeler.....Penhold
- Martin Hamm.....Hague
- Steine Einarsson.....Logberg
- Peter Keith.....Fitzmaurice
- Arthur Mitchell.....Grenfell

OATS (NORTHWEST TERRITORIES).

- Talbot E. Steuck.....Abernethy
- Silas E. Wheeler.....Penhold
- Melrose Provost.....Flett's Spring
- S. Kirkham.....Saltcoats
- Jos. Neunier.....Langenburg
- Annie Bourne.....Innisfail
- Marie Ripaud.....Duck Lake
- Arthur Mitchell.....Grenfell
- Florence Whiteside.....Star
- Claire Hunt.....Knee Hill Valley

SPRING WHEAT (BRITISH COLUMBIA).

- Wm. A. Middleton.....Vernon
- V. W. Menzies.....Pender
- Gilbert Mohr.....Enderby
- E. & H. Mohr.....Enderby
- Wm. Petersen.....Gabriola Island
- D. & D. Graham.....Armstrong
- Gordon Frederick.....Ladner
- Percival French.....Vernon
- Harry B. Biggar.....Langley Prairie
- Ella J. McLellan.....Beaver Point

OATS (BRITISH COLUMBIA).

- Morrice Middleton.....Vernon
- Ella J. McLellan.....Beaver Point
- D. & D. Graham.....Armstrong
- Gordon Frederick.....Ladner
- Harry B. Biggar.....Langley Prairie
- Gilbert Mohr.....Enderby
- Henry Petersen.....Gabriola Island
- Flora Petersen.....Gabriola Island
- Howard Mohr.....Enderby
- Malcolm Barr.....Mission City

N. B.—In awarding the prizes in the yearly competition with wheat for the Province of British Columbia, Masters Gordon Frederick, Percival French and Harry Biggar were reduced because of failure to select, according to instructions, the required amount of large heads to produce seed for their seed-grain plot for next year.

Crop Report of Experimental Farms.

(From our Ontario and Eastern Edition.)

Bulletin No. 39 of the Dominion Department of Agriculture, issued in December, 1901, by Dr. Wm. Saunders, Supt. of Experimental Farms, shows the results obtained in that year from the cultivation of a very large number of varieties of grain, fodder corn, field roots, and potatoes. The following is a summary of results as regards some leading crops.

The twelve varieties of oats which have produced the largest average crop for the past six or seven years on all the Experimental Farms, and hence, may, perhaps, be regarded as worthy of being placed at the head of the list for general cultivation in Canada, are the following:

	Per acre.
	Bush. Lbs.
1. Banger	76 14
2. American Beauty	75 33
3. Mennonite	75 23
4. Holstein Prolific	72 31
5. Bavarian	72 21
6. Buckbee's Illinois	72 4
7. Golden Beauty	71 32
8. Columbus	71 17
9. Golden Giant	71 8
10. Early Golden Prolific	71 ..
11. Abundance	70 20
12. American Triumph	70 20

An average crop of 72 bushels 24 lbs. per acre.

The twelve varieties of spring wheat which have produced the largest crops for the past six or seven years, taking the average of the results obtained on all the Experimental Farms, are:

	Per acre.
	Bush. Lbs.
1. Preston	33 58
2. Wellman's Fife	33 8
3. Monarch	33 8
4. Goose	32 50
5. Huron	32 45
6. Red Fife	32 30
7. White Fife	32 29
8. Hungarian	32 10
9. White Connell	32 6
10. White Russian	32 6
11. Rio Grande	32 6
12. Pringle's Champlain	31 56

An average crop of 32 bushels 36 lbs. per acre.

The six varieties of Indian corn which have produced the largest crops for the past five to seven years, taking the average of the results obtained on all the Experimental Farms, are:

	Per acre.
	Tons. Lbs.
1. Cloud's Early Yellow, 5 yrs.....	19 1,001
2. Red Cob Ensilage	19 651
3. Rural Thoroughbred White Flint.....	19 134
4. Selected Leaming, 6 yrs.....	18 1,210
5. Early Butler, 5 yrs.....	18 958
6. Giant Prolific Ensilage	17 1,976

An average crop of 18 tons 1,655 lbs. per acre.

The results of the testing of varieties for another year strengthens the conclusions reached in the past as to the importance of choosing the best and most productive sorts for seed if we are to realize the largest crops. Further experience also confirms the view that there are marked and fairly constant differences in the productiveness of varieties grown side by side, under similar conditions. A few points in support of this will be cited.

Of the 41 different sorts of oats which have now been under trial for six or seven years at all the Dominion Experimental Farms, only 13 of these have at any time appeared in the list of the best twelve. Hence many of the same varieties appear every year in the productive list. The average crop given by these 12 best sorts for the past six or seven years has been 72 bushels 24 lbs. per acre, while the remaining 29 varieties have averaged during the same time 66 bushels 2 lbs., a difference in favor of the most productive sorts of 6 bushels 22 lbs. per acre. This receives additional significance when we recall the fact that every bushel of oats added to the average crop of the Dominion puts about one million dollars into the pockets of Canadian farmers.

In barley this constancy in productiveness is even more marked. Of the 30 different sorts which have been under trial for the past six or seven years, 10 of these have appeared in the best 12 every year for the whole period and 14 only have found their way during this time into the list of the best twelve. While the 12 most productive sorts have given an average crop for the whole period of 45 bushels 30 lbs. per acre, the remaining 22 sorts have averaged for the same period 41 bushels 45 lbs., or nearly four bushels less per acre.

In the returns for the trial plots of spring wheat similar evidence is found. Of the 31 varieties of this cereal which have been tested for six or seven consecutive years, 8 of these have appeared among the most productive every year for the whole period. Comparing the best twelve varieties for 1899 with the best twelve for 1900, we find that eleven of them are the same, and comparing the best twelve for 1900 with that for 1901, we find the lists exactly the same.

Similar evidence could be furnished from the trial plots of all the other crops, but enough has been brought forward to show that the opinions advanced are well founded. Should it become a general practice among farmers to choose for sowing those varieties which have been shown to be most productive and give them reasonably fair cultivation, there is no doubt that this would result in a material increase in the average crops of the country and thus make farming increasingly profitable.

British Cattle Markets.

London, Jan. 27.—There were no cattle offering to-day. United States sheep, 5d. to 5d. Saturday's prices: Cattle 6d.; sheep 5d.; lambs, 7d.

Liverpool, Jan. 27.—Canadian cattle, 6d. to 6d.; sheep 5d.

Montreal Live Stock.

Montreal, Jan. 27.—A few best cattle sold at about 4c. per lb. Medium stock brought from 4c. to 4c. per lb., and the common dry cows and lean stock sold at from 2c. to 3c. per lb. Very fine large bulls were bought by shippers at from 4c. to 4c. per lb. Calves rather inferior, and sold at from \$2.50 to \$6 each. Sheep sold at 3c., and lambs at from 4c. to 4c. per lb. Fat hogs sold at from 6c. to 6c. per lb., good straight lots, weighed off the cars.

Chicago Live Stock.

Chicago, Jan. 27.—Cattle—Steady to 10c. lower; good to prime steers, \$6.50 to \$7.25; poor to medium, \$4 to \$6; stockers and feeders, \$2.25 to \$4.50.

Hogs—Closed 5c. to 10c. lower; mixed and butchers', \$5.90 to \$6.35; bulk of sales, \$5.90 to \$6.25.

Sheep—Lambs, steady to strong; good to choice wethers, \$1.30 to \$6.20; western sheep, fed, \$1 to \$1.51; native lambs, \$3 to \$6; western lambs, fed, \$5 to \$5.90.



A Pocketful of Sunshine.

A pocketful of sunshine
Is better far than gold;
It drowns the daily sorrows
Of the young and of the old;
It fills the world with pleasure,
In field, in lane and street,
And brightens every prospect
Of the mortals that we meet.

Travelling Notes.

IRELAND.

"Sure a terrible time I was out o' the way,
Over the sea, over the sea,
Till I come to Ireland one sunny day,—
Bethter for me, bethter for me.

"The first time me fut got the feel of the ground
I was strollin' along in an Irish city
That hasn't its aquil the whole world around
For the air that is sweet an' the girls that are
pretty."
—Moirá O'Neill.

It was in lovely summer weather that I travelled direct from Glasgow to Ireland, but, nevertheless, I will omit to describe the passage from Ardrossan to Belfast. It is needless. It is an unpleasant recollection. Suffice it to say that I came to Belfast, and was met at the wharf by a very handsome cousin whom I had not seen for fourteen years, who acted as my guide, so that I did not have occasion to accost the tall, straight policeman, with his military air and jaunty, good-for-nothing cap glued over his right ear. There seemed to me to be an air of good-humored kindness about every man, woman and child within eye- and ear-shot. A number of noisy, rattling jaunting-cars came up with cheery offer of service, and soon one of these same dashing, tipsy little vehicles was whirling us over the roads at breakneck speed, as if the fate of the nation depended upon post haste. The driver seemed bitten by a mania for swift motion the moment he touched the reins of the horse, and I had to hold on for dear life—only hoped that we would not run over any of the people, whom we made to scatter in every direction. Rory O'More, who was driving, was a true son of the soil, overflowing with good nature, his rosy face stretched in a constant smile, which was cheap at the shilling too much he charged for the ride. Before one has been in Ireland a day, a certain number of strangenesses where all is strange impress themselves upon one. Of these, perhaps the first is the omnipresence of the military element. Red-coated privates on the sidewalks; stately officers in dog-carts, on horseback or afoot; companies and squads going through drills in barrack yards, of infantry, of cavalry, of artillery, of constabulary, everywhere in town and country. One feels as if revolution were in the air. But no; there is no war and no enemy! Then the bogs—Ireland's coal mines! The immense wealth of its bog land is not yet exhausted, by any means, and a sight it was to see cords or bushes or stacks of the clean-cut black turf piled neatly to dry, all over the country. The long line of little whitewashed cottages down the village streets (see pictures); the beautiful fuchsia hedges, quite 8 ft. high and 3 ft. wide; the miles

of linen bleaching upon the grass; the curious and amusing brogue; the playing of Irish airs by Irish bands; the Round Towers which have so perplexed the archeological world, and of which some writer wrote that they "were most probably lighthouses which had come ashore at night for a spree and had forgotten the way back again";—by the time one has rambled about for ten days or a fortnight the effect of these surprises almost vanishes. It soon seemed the most natural thing in the world to sit on one of those low-backed "outside cars," travelling edgeways, so to speak, and though I laughed and made believe I liked it, I was glad enough to hold on by the ironwork while "the son of Nimshi" charged down the roads and through the streets.

I cannot give my readers "impressions of Ireland," as I did not go all over it, my object in going there at all being more especially to visit a friend who lives in County Fermanagh, but of that county and Donegal I saw a good deal, spending a very happy time there, too. The weather was fine, although traces of rain were evident in the greenness and freshness of its meadows and trees. As in England, the roads are good, and everywhere there are the most beautiful hedges. One is always coming upon some pretty little lake or river, and Lough Erne is a beautiful lake containing more than a hundred islands, many of them being well cultivated, and inhabited. There are the beautiful green lawns and fields everywhere, the kindly climate lending itself to their adorning.

The habit of building directly upon the ground, without the interposition of any proper foundation or cellar, cannot add either to health or comfort in such a wet climate, but the rich counteract the effect by fires in all the different rooms, while the poor accept the rheumatism and low fevers engendered as coming from the hand of God and a discipline not to be questioned.

The courtesy of the shop people was very marked. It was a pleasure to buy from such attentive salesmen. Prices of almost every kind were much lower than those to which I had been accustomed, in clothes for men and boys, cloth garments and personal furnishings more especially. The linens and laces were peculiarly fascinating. At Clones I saw a great deal of the lacemaking, the Irish lace noted all over Ireland. It is of the most exquisite and intricate crochet—a revived industry, owing, happily for the workers, to the fact that it has once more become most fashionable. Those who make it are earning more than they have been able to make for years. With this instalment of my Irish notes, I am sending some pictures, for which I hope space may be found in the present or an early issue of the "Farmer's Advocate." They can speak for themselves.

MOLLIE.

Ingle Nook Chats.

My dear Guests,—

"All succeed who deserve, though not perhaps as they hoped. An honorable defeat is better than a mean victory, and no one is really the worse for being beaten unless he loses heart. Though we may not be able to attain, there is no reason why we may not aspire."

The first clause of the above quotation may convey something of a reproach to those of us who have failed to distinguish ourselves in any special line, inasmuch as our being worthy is made the sole condition upon which success depends, and being unsuccessful stamps us as being undeserving.

At a casual glance this appears unfair and untrue, for by success we

too often mean mere worldly gain, and certainly by this criterion many will be found unsuccessful whose noble qualities of mind and heart place them infinitely above "the common clod." Upon reading further, however, we shall find that such is not the idea intended to be conveyed by the writer, Sir John Lubbock, who continues thus: "An honorable defeat is better than a mean victory." There is, then, another standard by which we must calculate success or failure—the standard of our own inner consciousness of right or wrong, and he who wins by this standard gains life's most enviable guerdon, though he should be a thousand-fold defeated in the eyes of the world.

If we apply the first rule to the attainment of any certain object—for instance, to study—



GOING TO MARKET.

there is much truth in the statement that all succeed who deserve, for by patient application, even through apparently slow progress, we may all achieve a certain measure of success, and while we may not have reached the goal for which we set out, we shall at least be farther on than if we made no endeavor. Bishop Whately gives us a consoling reflection when he says, "He only is exempt from failures who makes no efforts." The trite remark that "not to go back is somewhat to advance" is equally true when reversed; we cannot simply stand still, but must go either onward or backward with the ever-surg-ing tide of events around us. Our mental faculties speedily become dull if allowed to fall into disuse, and for this reason we should make a practice of pursuing some favorite study, or at least cultivate a taste for good reading. I say good reading advisedly, for poor literature of the dime-novel stamp, for example, is worse than none; for not only does it not improve our morals, but it also injures the memory. This taste for reading, if not inherent, may to a great degree be acquired, and he who possesses it has at least one corner-stone upon which to erect his edifice of happiness.

"Pleasures of Life," by Sir John Lubbock, from which I quoted at the beginning of this chat, is an interesting and instructive little volume, with essays to suit all tastes, whether they incline to art, music, poetry or science. This is but one suggestion, but this small book, a volume or two of poems, Ruskin's "Sesame and Lilies," and one or two humorous books into which one can peep when feeling at all "blue," will make a very fair beginning for the youthful reader. The subject of "books" is almost inexhaustible, but I must leave it and say a few words about

OUR COMPETITIONS.

It is something over a year since the Ingle Nook Contests began, and during that time they have brought us into touch with many new friends, and their kind words of encouragement have been very cheering indeed. Number XVII. is bringing out many new contributors, and to each of them a hearty welcome is extended.

"Marie," I enjoyed your pleasant letter, and hope you will continue to prove your interest in our Corner. "Bertie F." is very welcome, but I am sorry she sent her work to me, as I fear it will be too late by the time it reaches the "Advocate" office. When work is for the Ingle Nook it will be announced in that column. Dugald H.—This answer applies to your contribution also, but call at the Nook some other time. Watch for the announcement of an altogether new competition next issue.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

Measure vs. Weight.

- One teaspoonful equals one dram.
- Two tablespoonfuls equal one ounce.
- One wineglassful equals one gill.
- An ordinary-sized teacup holds four fluid ounces, or one gill.
- Ten eggs weigh about one pound.
- One tablespoonful of butter weighs one ounce.
- One quart of sifted flour, well heaped, weighs one pound.
- One pint of best brown sugar weighs thirteen ounces.
- Two level teacups of maple sugar weigh one pound.
- Two tablespoonfuls of pulverized sugar, or flour, weigh one ounce.
- Two teacupfuls of butter, well packed, weigh one pound.
- One and one-third of a pint of pulverized sugar weighs one pound.
- One generous pint of liquid, or one pint of chopped meat, packed solidly, weighs one pound.
- An ordinary tumbler holds about half a pint.



THE COAL OF THE COUNTRY.

"Black turf! Black turf! Twelve sods a penny!"



The Irish Spinning Wheel.

This is one of the pictures which "Mollie" sent us from Ireland, and taken in conjunction with what she tells of the beautiful lace fabrics, a revived industry now becoming a profitable source of breadwinning, once more we can endorse the testimony of Ruskin which accompanies it: "The Irish people cannot only design beautiful things, but can also execute them with indefatigable industry." Irish linen is celebrated for beauty of texture and finish all the world over, and though scientific methods have driven the useful old spinning wheel into the corner, or made of it simply a relic for the rich man's drawing-room, yet so closely is it interwoven with the histories of the Irish homes of the past that in song and story alike its memory will never wholly die out.

H. A. B.

THE QUIET HOUR.

To-day or To-morrow?

"I know of a land where the streets are paved
With the things which we meant to achieve.
It is walled with the money we meant to have saved
And the pleasures for which we grieve.
The kind words unspoken, the promises broken,
And many a coveted boon,
Are stowed away there in that land somewhere—
The land of 'Pretty Soon.'

"There are uncut jewels of possible fame,
Lying about in the dust,
And many a noble and lofty aim
Covered with mould and rust.
And oh! this place, while it seems so near,
Is farther away than the moon,
Though our purpose is fair, yet we never get there—
The land of 'Pretty Soon.'

"The road that leads to that mystic land
Is strewn with pitiful wrecks,
And the ships that have sailed for its shining strand
Bear skeletons on their decks.
It is farther at noon than it is at dawn,
Farther at night than at noon.
Oh! let us beware of that land down there—
The land of 'Pretty Soon.'

My father used to be very fond of the saying,
"To-morrow never comes"; and, as a child, the
words often puzzled me. It seemed to me that
to-morrow—Saturday or Sunday, as it might be
—would surely come in time. The fact that al-
though Saturday might come, to-morrow was
still as far off as ever did become clear at last,
but even then I did not at once understand the
great significance of the truism.

"To-day" unsullied comes to thee—newborn,
To-morrow is not thine.
The sun may cease to shine
For thee ere earth shall greet its morn.
Be earnest, then, in thought and deed,
Nor fear approaching night.
Calm comes with evening light,
And hope and peace. Thy duty heed 'to-day.'"
We can live only in the present. This is a
truism, of course; but, though it is a self-evident
fact, we are constantly forgetting it and
trying our very hardest to live in the future—
wasting strength in attempting to perform an
impossibility.

Don't misunderstand me. We must never re-
fuse to attempt a task just because it is impos-
sible. When Gideon was told to deliver Israel
from the Midianites, to conquer an innumerable
army with only three hundred men, the apparent
impossibility of success was not accepted as an
excuse. When God says, "Have not I sent thee?"
that is enough. His soldiers have no need to
question whether the duty set them be impossible
or not, for "with God all things are possible."

But it is folly to attempt impossibilities with-
out His authority or help, and, as I said before,
it is impossible to live in the ever-elusive "to-
morrow." How often we hear people talk of the

great things they would do if they only had the
opportunity. "If I were only rich," they say,
"I would do a great deal to help the world."
Is it only possible for rich people to do good?
Our Lord seemed to think very differently, for,
though He was rich, yet in order to help us
effectually, He became poor. Do Christians really
agree with the world, and trust implicitly in the
power of the "almighty dollar?" The chief busi-
ness of the Church often seems to be to raise
money. Not to give money, but to raise it—
generally a very different thing.

God has made us for a particular purpose, be
sure of that. If He wants us to do good with
money He will give us money. Let us see that
we spend it as His stewards. But, after all, do
you think that our chief business here is to do
good or to be good? The two things should go
hand-in-hand, shouldn't they? But, although it
is hardly possible to be good without doing good,
it is quite possible to do good without being
good. If we are branches of the True Vine our
chief business is to grow and bear fruit.

Instead of dreaming of the great things we
hope to do some time, let us grasp the opportu-
nities which present themselves every hour.

Tradition tells of an Eastern prince who asked
Solomon for a maxim that would make him
strong in misfortune and humble in prosperity.
The maxim he received was: "Even this also
will pass away." Our opportunities will pass,
like everything else—and they never come back
again. Let us make use of them to-day, remem-
bering the familiar description of the ancient
statue of Opportunity. It stood on its toes and
had wings on its feet, to show that it could only
stay a moment. A lock of hair hung on its fore-
head, as a sign that men might seize it if they
would. The head was bald behind, showing that
when it had once passed it could not be caught.

"To-day is added to our time,
Yet, while we speak, it glides away.
How soon shall we be past our prime,
For where, alas, is yesterday?
Gone—gone into eternity.
There every day in turn appears.
To-morrow? Oh, 'twill never be,
If we should live a thousand years!"

We did not come into this world by chance.
God has called us to some particular work, and
specially fitted us for this, our true vocation.
Planning great things for to-morrow will not
make up for the neglect of the work put into our
hands to-day.

A vine was once entwined 'round a column of
a ruined temple. One night part of the roof sup-
ported by this column was blown down. Next
morning the gardener noticed that the vine was
drooping. Examination proved that it had not
been injured by the storm, what could be the
matter? The leaves answered: "We have failed
in the work the Master gave us to do. We were
set here to support the temple roof, and it has
fallen." The gardener smiled as he held up a
cluster of rich purple grapes, and said: "This is
the work the Master set thee to do and thou hast
done it." Then a thrill of new life stirred
through every twig. It is very important that
we should not mistake our vocation. There is
another way in which we are apt to waste our
strength by trying to live in to-morrow instead
of in to-day. I mean, of course, in being anxious
and worried about the future. I can't take up
that question now, for our editor will be down
on me if I take up too much space, but I should
like to tell you what one old woman thought
about it.

She says: "I never found the work any the
forwarder for worrying about it over night. You
can't mend a thing before it's torn; and if you
get a hundred pieces ready, the rent'll always be
sure just to go in the way that fits none of 'em.
Things be perverse most times, and there's no
way that I know of being up with them before-
hand."

Our business, then, is with to-day. Are we
going to waste it, or lay out its hours as pre-
cious talents committed to us in trust by our
Master? To Him we must render an account.

"Lose this day loitering, 'twill be the same story
To-morrow, and the next more dilatory.
The indecision brings its own delays,
And days are lost, lamenting o'er lost days.
Are you in earnest? Seize this very minute.
What you can do, and think you can, begin it.
Boldness has genius, power, magic in it.
Only engage, and then the mind grows heated.
Begin it, and the work will be completed."

HOPE.

To Cure a Child of Croup.

Wring flannel cloths out of hot water and ap-
ply them to the throat, changing them frequently.
Make a tent over the crib by means of sheets
over a screen or umbrella, then place a small tea-
kettle over an alcohol lamp near the crib and let
the child inhale the moist vapor which may be
conducted inside the tent, care being taken that
the child does not come close enough to the hot
steam to get burnt. If the attack is severe you
may give ten drops of ipecac every fifteen minutes
until vomiting results. It would be best to keep
the patient indoors for a day or two after the at-
tack.—(Emelyn Lincoln Coolidge, M. D., in the
January Ladies' Home Journal.

On Some Practical Topics.

(No. 1.)

ON CENTRALIZATION OF SCHOOLS IN RURAL DISTRICTS.

In the final paragraph of an admirable editori-
al on page 52 of the "Advocate" of the
20th of January, headed "An Important Edu-
cational Announcement," its readers are invited
to give an opinion regarding the proposition to
centralize country schools; possible legislation
to make such action permissible being fore-
shadowed.

The writer has come across a very clear pre-
sentment of the subject in the Canadian Teacher
of 1st September, and as it is a magazine which
may not fall into the hands of those who are not
strictly educationists amongst "Advocate" sub-
scribers, an opportunity is asked to make some
quotations which may help towards the formation
of a fair consideration of the same before the in-
vitation to give such an opinion is accepted.

The Canadian Teacher says: "The improve-
ment of school conditions for the children of
country districts is the most important topic for
consideration by the people of Canada to-day.
The country school is the great formative force
in the nation's life. To the school more than any-
thing else must we look for the character of our
future legislators, for the uprightness of our fu-
ture judges, for the dignity of our future pastors,
and the integrity of our future citizens. . . .

But, someone will say, how do you propose to
give us better and more experienced teachers, and
how can you increase the salary sufficiently to in-
duce such teachers to remain in the service? The
Canadian Teacher believes that the solution lies
in the CENTRALIZATION OF SCHOOLS. By
this we mean the closing of the different schools,
and the transportation of the children to and
from that school in waggons at the public ex-
pense.

"By this system pupils from every part of the
township enjoy a graded-school education. With
the grading of the school and the larger number
of pupils come teachers of a more highly-educated
class. Higher branches of study are taught, the
teachers are more conversant with the needs of
their profession. The salaries are higher, the
health of the pupils is preserved, because they are
not compelled to walk to school in slush, snow
and rain, to sit with damp, and, perhaps, wet
feet, in ill-ventilated buildings. There is no
lounging by the wayside. The use of indecent and
obscene language is prohibited in the waggons,
thus all opportunities for quarrelling or improper
conduct on the way to and from school is re-
moved. The attendance is larger and truancy is
unknown, and the boards of education exercise as
much care in the selection of drivers as they do
in that of teachers. . . . In many parts of
the United States this plan has been tried and
found a complete success. . . .

"The educational influence of a central school
over that of eight or nine widely-scattered, neg-
lected buildings is beyond controversy. On the
playground all the big boys of the township
play baseball. Think what it is to get all the
boys of a township—country boys, I mean—on
one playground! There will grow up a unity.
Each boy, having studied and played with other
boys of the entire township, will be stronger for
it.

"The youth of the farm dreams and longs for
the intenser life of the city. He feels an almost
irresistible desire to get closer to the nerve cen-
ter. The great outside world is calling him, and
his nature answers the call. Country life de-
mands and must speedily have more of city ad-
vantages. With the free transportation of chil-
dren our youth can be educated at home, be at
home evenings and not on the streets of a dis-
tant city. The Canadian Teacher looks for ob-
jectors to the plan. Progress is rarely along the
path of least resistance.

"But to the man, rich or poor, who has a
family of growing children, living in a country
district, far from a city, any reasonable propo-
sition to better the educational facilities for his
children ought to receive from him a candid con-
sideration.

By centralization all the children of the town-
ship have the same chance for higher educational
advantages, which under the present plan only
five or ten per cent. are able to get by leaving
home and going to the city. With a central
graded school and a High School course the chil-
dren can be at home during the evenings under
the care of their parents. The people of the
country districts are entitled to receive the fullest
benefits for money expended. Better means of
education, better training, stronger characters,
the possibility of all these must appeal to every
parent and to every public-spirited citizen of any
community.

"By centralization we go a long way to-
wards the solution of the problem, 'How to keep
the boys on the farm.' We bring to the farm that
which he goes to the city and town to secure.
Such a school may become the social and intel-

lectual center of the community life. With a library room, music, debating club, etc., our boys and girls will hesitate to leave home, and such a school, for the uncertainties of city life. Surely this enrichment and preservation of country life is of vast importance. And so is the preservation of the simplicity of manners and dress, the ruggedness of farm life, the peace, quiet and contentment of its homes. All these are items which argue eloquently for a rural consolidation which is expedient, economical, and wise."

The article from which the above extracts are taken contains many more most valuable arguments, which limited space forbids our transcribing, many of which, however, would naturally present themselves to the thoughtful mind. But even apart from the plea that "centralization will decrease the cost per capita, and furnish a more efficient teaching force, at better salaries," there remains the indisputable fact that it would indeed be the best answer to the question which means so much to the agricultural population of Canada, "How shall we keep our boys and girls upon the farm?"

H. A. B.

THE CHILDREN'S CORNER.

About Dolls.

"A farewell kiss upon thy face,
That little face that's smiling ever,
One farewell kiss, a fond embrace,
Then, Dolly, you and I must sever!
For I, alas! I'm growing old:
I will be twelve years old to-morrow!
Too old to play with dolls, I'm told,
And yet I lay thee by with sorrow!
I'll comb and brush your golden hair;
I'll tie a ribbon in your tresses;
Then wrap you up with loving care,
With all your tiny frocks and dresses.
And oft in time to come, I'll take
A peep at thee, and thus erase
The years that intervene, and wake
The happy thought of childish days."

Santa Claus brought thousands of dolls to the little Canadian children last Christmas. How many thousand have been broken to pieces already, do you think? A small niece of mine, who is only three years old, was almost too rich to be happy. Like the old woman in the shoe, she had so many children she didn't know what to do. Her father said he couldn't sit down anywhere without first clearing some of her property off the chair. Another little niece, who is only two, had ten dolls. I say "had," for most of them have vanished by this time. However, you who read this page have probably reached the age of the little girl who has to put away her doll, with a farewell kiss, being too old to play with it. I hope you are not one of those unnatural children who scornfully say, "I never cared for dolls," for there is something very beautiful in the womanly tenderness of the dear little mothers towards their doll babies. I am sure you will sympathize with the little girl who

... sat in her little rocking-chair, a-sighing and twirling her thumbs:
"O, everything for my doll is done, and never, never, to mending comes!
I haven't a morsel of sewing, dear mother, in all the town.
Can't you find me one doll, no matter how small, who will wear out her gown?"

I dare say some of the grown-up mothers would be rather thankful if their five dolls didn't wear out their gowns, or grow out of them, as fast as they do. But mothers shouldn't spend all their time dressing their children, and leave them to grow up dunces, should they? Of course, I know that the alphabet is quite out of date now, but still no one would blame the small teacher who tried her very hardest to teach her doll the names of those queer-looking letters which mean so much. This is how she gave the lesson.

"Come here, you nigramus!
I'm 'shamed to have to 'fess
You don't know any letter
'Cept just your crooked S.
Now listen, and I'll tell you:
This round hole's name is O,
And when you put a tail in,
It makes a Q, you know.
And if it has a front door
To walk in at, it's C,
Then make a seat right here
To sit on, and it's G.
And this tall letter, dolly,
Is I, and stands for me;
And when it puts a hat on,
It makes a cup of T.
And curly I is J, dear;
And half of B is P;
And E without his slippers on
Is only F, you see.
You turn A upside downward,
And people call it V;
And if it's twice, like this one,
W 'till be.
Now, dolly, when you learn 'em,
You'll know a great big heap—
'Most as much as me. O, dolly!
I b'lieve you've gone to sleep!"

Perhaps it is just as well, after all, that dolls do get broken so quickly, and that the children are always ready for new ones. There are plenty of people who spend their lives making dolls, and if no one wanted to buy them, they and their children might starve. Nearly all the people in one town in France are working at dolls' heads.

They mix lime and earth together. Then this bisque, as it is called, is washed and strained over and over again, until it is beautifully white, when it is poured into moulds of different sizes. These ghastly, eyeless heads are turned out of the moulds, women fasten in the eyes, and they are baked for two days and nights. Just fancy two or three thousand heads staring at each other in an oven! I should think they would feel it a very pleasant change to be sent out here to cool off. After being baked, they are polished with sandpaper, and the cheeks and eyelashes are painted. Then the poor things go into the oven again for about half a day. Dolls mean work, not play, in that town. Probably the children are tired of the sight of them, and would much rather play with something else.

A soldier doll once fell in love with one of these French beauties, and there was a wedding in Doll land. Would you like to hear this love story?

"The little French doll was a dear little doll,
Tricked out in the sweetest of dresses;
Her eyes were of hue
A most delicate blue,
And dark as the night were her tresses.
Her dear little mouth was fluted and red,
And this little French doll was so very well-bred
That whenever accosted her little mouth said:
'Mamma! Mamma!'

"The stockinet doll, with one arm and one leg,
Had once been a handsome young fellow,
But now he appeared
Rather frowsy and bleared
In his torn regimentals of yellow;
Yet his heart gave a curious thump as he lay
In the little toy cart near the window one day
And heard the sweet voice of that French dolly say:
'Mamma! Mamma!'

"He listened so long and he listened so hard
That anon he grew ever so tender,
For it's everywhere known
That the feminine tone
Gets way with all masculine gender.
He up and he wooed her with soldierly zest,
But all she'd reply to the love he professed
Were these plaintive words (which perhaps you have
guessed):
'Mamma! Mamma!'

"Her mother—a sweet little lady of five—
Vouchsafed her parental protection,
And although stockinet
Wasn't blue-blooded, yet
She really could make no objection.
So soldier and dolly were wedded one day,
And a moment ago, as I journeyed that way,
I'm sure that I heard a wee baby voice say:
'Mamma! Mamma!'

Though most dolls are rather short-lived, one, at least, is quite old enough to be a great-grandmother. She came from England to America more than 200 years ago. Her dress, of brocade and velvet, stands out like a balloon over an enormous hoop skirt. She has lost one of her arms, but looks very young and well, in spite of her two centuries of life. She is kept carefully wrapped up, as the older she gets the more valuable she becomes. Of course, no children are ever allowed to handle her.

I hope you don't feel bored with all this talk about dolls. Even the children of the 20th century were young once.

COUSIN DOROTHY.

The Essay Competition.

Our "Essay Competition" proved to be very popular with our readers, no fewer than eighty-two descriptions of our beautiful Christmas front cover having been sent in, thus making the task of deciding a difficult one, as numbers of the essays were of good literary merit. Some otherwise excellent ones greatly exceeded the length agreed upon, and so had to be thrown out on that account. The winner of the first prize is Mrs. Frank Hunter, Norval, Ont., whose essay appears in our present issue. The second prize goes to M. W. Shepherd, Riceville, Ont., Prescott Co.; while Miss Agnes Laing, Wenworth Co., Ont., earns third prize.

We take this opportunity of thanking the several essayists for the many kind and appreciative expressions of regard and interest in our "Farmer's Advocate," and beg to assure them that it shall be our aim in the future, as it has been in the past, to keep its pages up to the high standard of excellence which alone will satisfy our readers.

Among other writers deserving of special mention are:

Mrs. Spencer, Mrs. Doolittle, Mrs. Todd (Geneva, Que.); Misses Maria Hopkins, Annie E. Todd, Mary B. Salkeld, Louise Wetmore (King's Co., New Bruns.), Carrie Easton (Charlottetown, P. E. I.), M. McVannel, M. L. Cooke, J. McVannel, Mina A. Hume, Mamie Sanders, Rachel Quinn; Messrs. Peter McCallum, E. Mackinley (Halifax, N. S.), Jno. A. McKillop, Geo. Young, Albert Nicholson, and G. J. McC— (St. George's, P. E. I.).

FIRST-PRIZE ESSAY.

You ask us to look on your Christmas cover, and tell you what we see.

I am sure that on no two of your many readers will it make the same impression. To me, at

the first glance, comes up one of my earliest memories; of a lovely summer day, a short, pleasant drive over a delightful country road; then a shouting, cheering, surging mass of people; and in the midst of it, high perched on my father's shoulder, I looked, almost in awe, at a slender, smooth-faced boy of nineteen: the Prince of Wales, heir to the British Crown.

As I look on the rotund figure, silvery beard and aging face of our King, the thought arises that Father Time has laid his hand no more gently on the son of the Royal house than on thousands of his loyal Canadian subjects who that day surrounded him, as the maple leaves, emblems of our country, do in the picture, reminding us that true nobility consists, not in birth or station, but in that "other merit" to which the lowliest-born may attain; of the equality and brotherhood of man, flight of time and certainty of death.

I look again, and my happy, happy school-days rise vividly before me; when my heart thrilled with mingled pity and admiration at the pathetic story of the blind Bohemian king who, beneath a waving crest of three ostrich feathers (I must confess that in after years, I often wished for just such a trio), first bore the motto, "Ich dien," into the, for him, fatal battlefield of Cressy, A. D. 1346. This motto was then adopted by the Prince of Wales, and ever since by his successors.

1866,—in fancy I can feel, again, the earth throb beneath my feet, as I childishly imagined then that it vibrated to the music of "Tramp, tramp, tramp, the boys are marching," as on another delightful day we welcomed home from Ridgeway our brave volunteers, who, in the spirit if not in the letter, carried with them the same motto, "I serve."

Also, your natal year: dear "Advocate," accept my congratulations. May long life, ever increasing and outstretching success be yours, who, in your public service, so efficiently instruct, entertain and uplift.

Another glance, and above, below, all around, are the ever-present, marvellous works of God; in the incomprehensible vastness of space, the innumerable stars, each filling his allotted place, working out the great plan of the Creator, and showing forth His unsearchable riches and infinite power.

From the whole seems to come this message, "I give you a motto, appropriate it: NOW, for time is fleeting; and with steadfast, earnest purpose, and faithful, trusting prayer, strive to so serve your Heavenly Father, earthly king, country and fellow man, that in that Great Day you shall hear His "Well done, good and faithful servant, enter thou into the joy of thy Lord."

Norval, Ont.

SARAH HUNTER.

The Sleighing Party.

At the present time there is an epidemic abroad throughout most civilized parts of Canada. It is always confined to the winter season. Its symptoms are somewhat akin to those of brain fever and hydrophobia, and its effects are sometimes as disastrous as those of smallpox. It is chiefly juveniles and elderly people who affect the juvenile that are attacked by this epidemic, which is commonly known as the "sleighing party."

As a rule, people fight shy of epidemics, but there is a large number of individuals of a "taking" nature, who "count their many blessings," as it were, by dwelling at length on the multiplicity of ailments to which they have fallen heir. I once knew an old lady of unusual activity, who gloried in the recollection of having "had" almost every known disease, from mumps to rheumatism of the heart; in fact, she declared she had been dead entirely on more than one occasion, and was a living example of the wonders of modern science. To such as she, no doubt, the sleighing party will be hailed with delight.

To begin with, to experience the malady in its worst phase, the night must be moonless and all but starless, with the temperature somewhat below zero. A good thing is to have a high, slender pleasure sleigh (it is aristocratic-looking, and is so elevating to the spirits), and if one horse is blind and the other one balks, so much the better. A necessary feature is plenty of girls in the company, as they are so cheerful; they are always ready to giggle at every stump and snowbank, and to squeal if the sleigh swerves an inch. Possibly this will not be difficult of attainment, as—strange though it may appear—there is quite frequently a dearth of the masculine element at sleighing parties as well as at the weekly prayer-meeting. You may count on the round trip not exceeding twelve miles in length, but that depends largely on circumstances; and its duration depends on circumstances altogether.

In starting out, be sure not to burden yourself with too many wraps. They just make that much more for the horses to pull, and one must always consider their feeling—particularly the balky one's. And besides, why not be original? Doubtless all the other ladies will be swathed in

old shawls, and ancient overshoes, and scarfs tied over their ears, but don't you be so silly — just perch that little creation of wings and velvet and ribbon on your head, button your kid gloves, and seat yourself gracefully, a little apart from the others in the sleigh, if possible. Then, with the weather auspicious, the driver officious, and the horses capricious, away you go! After a while, your ears, fingers and toes may feel chilly, but if you are a Christian Scientist you won't mind that at all, and if you are not a Christian Scientist you must just think what frights the others are and how nice you look, and there is a good deal of satisfaction in knowing that.

Of course, on the sleighing party, everybody is supposed to sing. It doesn't make any difference whether you can follow the tune or not, and it doesn't make much difference what you sing; it is not an uncommon thing for the affecting strains of "Home, Sweet Home," and "Meerschau Pipe" to mingle, on the sleighing party, and when accompanied by giggles, screams, and thumpings with the feet on the sleigh-bottom, it is almost as good as an Indian "pow-wow," ex-

cept for the fire. Then, all at once, the fire comes too. There is a scraping and grinding, with sparks flying like lightning, and the balky horse throws back his head — you have run aground!

"All hands out and push!" shouts the driver. Now, when about a dozen girls can hardly budge, let alone get their "hands out," for wraps, and then, when they do push, and a talky horse pushes in the opposite direction, and a blind horse pulls in still another direction, and an angry driver jumps and hops in nearly every direction under the stars,—well, you begin to think the sleighing party about as bad as the ague. However, you get back on the straight path eventually, and off you go again, through gaps and across fields. Presently there is another halt.

"I say!" yells the driver again. "some of you people back there climb out and hunt up the track. I can't find it!"

It isn't pleasant news, but out you tumble, and snuff around through the deep snow, only to find that you have been touring around the field in a circle; in short, have been enjoying a regular "merry-go-round." By and bye, by dint of

"inchin' along," your destination is reached.

On the return trip, the sleigh-bells have it all their own way. There is no singing, no giggling, and but little squealing. The worst of the fever is over, and you are slumbering while nearing the turning-point. It comes. The blind horse pulls the balky one off the road. The balky one throws back his head. There is no denying that you are "stuck." Then both horses back up. They are on their mettle, in very truth, and over the bank goes the sleigh, and out rolls its cargo, a jumbled mass of scarfs, robes, feet, arms, and shrieks. The bank is steep, and at the bottom there is a line of brambles, and beyond the brambles a barbed-wire fence—

On the afternoon of that day, or the morning of the next, you find yourself still alive; but your fingers and toes refuse to obey orders, your face is "furrowed," and your ears are nearer the size of a donkey's than they were a few days ago; and if you don't consider "the sleighing party" the worst malady you have ever suffered from, you deserve to have it all over again.

CHRYSOLITE.

Premium Announcement

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GOSSIP.

The Gold Medal herd of Berkshires of J. A. McGill, Neepawa, Man., has time and again demonstrated its 24-carat qualities in supplying breeding or show stock. At the time of our visit, the brood sows, including those noted winners, Rosamond and Charming, were out rustling, the system of feeding and watering being such as to call for plenty of exercise, thus ensuring lots of vitality and constitution in the progeny, as well as prolificness in the sows. This herd included the stud boars, Duke of Clifford, a strong-boned, lengthy, well-marked pig, first at the shows in 1900 and 1901, and Oxford Manitoba by Royal Oxford, a winner at the Royal, Oxford Manitoba is a smooth, well-marked pig, that stands well on his feet, and was good enough to win second place at Winnipeg, 1901. Another boar at the stud is Lord Eden, a deep, lengthy, good-hummed boar, also a second-prize winner at Winnipeg. We also noticed July pigs of good length and depth, that should pay good dividends in the hands of good stockmen. Sales recently include Duke of Clifford to R. Strick, Pincher Creek, Alta., and one of the above-mentioned July pigs to Jos. Shanks, Pettapiece, Man.

The announcement containing the rules and programme of the second annual spring show and auction sale of purebred cattle, to be held at Calgary, May 15th, 1902, and of the first annual Spring Stallion Show, to be held at the same place, May 14th, 1902, is to hand. The introduction contains some interesting and valuable information regarding interprovincial trade in live stock. A few pertinent remarks are made to prospective sellers, which might be taken to heart by Manitoba breeders. Those remarks pertain specially to the age of the bulls and the condition in which they are offered for sale. Two-year-olds in good flesh sell best. Entries are confined to Territorial breeders. An attractive convention-week programme is put out by the secretary, C. W. Peterson, Regina. A commendable departure in the stallion-show rules is that entries shall be limited to stallions registered in recognized stud-books; and that no unsound horse can be awarded a premium. A mistake has been made in offering a cup for an interbreed competition, as such are generally provocative of hard feelings and awkward for the judge. Any information and programmes can be got from the energetic secretary and director, C. W. Peterson.

We noticed recently in a paddock of the Melrose Stock Farm, Hamiota, a half-dozen useful-looking Shorthorn bulls about the age of a calendar year. With the advantage of good dams, fashionable colors and easy keeping qualities, these lusty young bovines should be rapidly snapped up by farmers and ranchmen.

J. Clark, Jr., Crowfoot, Alta., has recently added another good specimen of the Clydesdale to his ranch. The newcomer is Prince Lyndoch, bred by Robert Davies, of Toronto. Amongst the new blood imported to the West is a consignment of Shorthorns for Deputy Commissioner C. W. Peterson, Regina, to go on his Calgary ranch. Sir Walter = 3921, by Sittytown Hero 10th = 3085, and two cows, Rose of Dalmore, by Royal Prince = 2580, and Ladysmith, by Sittytown Hero = 2313, make up the consignment.

NOTICE.

BRANDON SEED HOUSE.—The 6th annual catalogue of the Brandon Seed House, issued by Messrs. A. E. McKenzie & Co., has come to hand. Every reader of the "Farmer's Advocate" should secure a copy of this catalogue, and before making up seed orders, make a careful study of the contents. Mr. McKenzie, in preparing the catalogue, has given special attention to the climatic conditions and requirements of Manitoba and the West, and by affixing a star to the varieties of each vegetable, flower, grain, etc., that has been

found by experience to be suited to Western Canada's conditions, has made the catalogue of special value. It is also worthy of notice that in his notes on the culture of the various seeds, special reference to Western conditions receives consideration. A complete list of vegetable and flower seeds is given, together with field roots and seed grains. Among the latter will be found several of the best varieties of spring wheats. Red Fyfe in three qualities, the best from most carefully selected seed. This house has always been prominent in the distribution of the popular Banner oat, and catalogues this variety as well as the Newmarket Improved Ligowa, Improved American, and Black Tartarian. Of the barleys, Mandeschauri is recommended above all others. It is a six-rowed variety, very strong in the straw, and an excellent yielder. It is, by the way, also recommended by Mr. Bedford as very much superior to any other variety, even to the Odessa, which for a number of years was considered the most suitable for our conditions. Emmer, spring rye, flax and several varieties of corn suited to Western conditions are also catalogued, together with a full list of grasses and clovers that are in demand in this western country. A full department of small fruits and stock foods, grass seeders, grain picklers, garden tools and supplies are included in the catalogue. All seeds, as far as possible, procured from home-grown stock, thus insuring better germinating powers and other desirable qualities. Be sure and give the Brandon Seed House a fair trial.

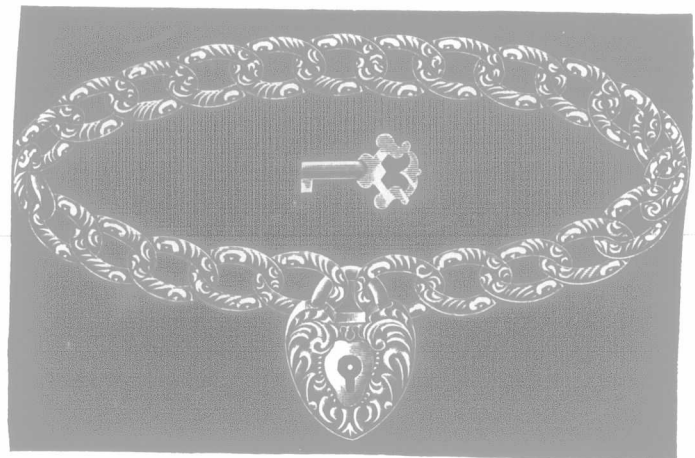
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HANDY, DURABLE and ATTRACTIVE. Made to contain the 24 issues of the year. We will forward this Binder, postpaid, to anyone sending us the names of TWO NEW SUBSCRIBERS and \$2.00.

GOSSIP.

A newcomer to the advertising columns of the "Advocate" is Joseph Laidler, Neepawa, who calls attention to his Berkshires. A visit to this herd recently found the owner actively furthering that strong combination, pig-raising with dairying. Representatives from this herd have been winners at Brandon, Neepawa, and other provincial shows, and have established an enviable record for themselves as typical of the breed, prolific breeders and of the type that suits the discriminating bacon market of to-day. The herd is largely charged with the blood of Baron Lee 4th, and traces its source to Snell stock as a foundation. The stud males are Honest Tom, a lengthy boar, with fine head and neck, showing plenty of quality and no waste meat; Hover-a-Blink and Prairie Boy, the latter a long pig, bred by Teasdale. The stud matrons are numerous. We can only particularize on a few. Prairie Girl, a lengthy bacon type of sow, with pigs at foot, bred by Teasdale; Princess, a big, deep, lengthy sow, well let down in the hams and a breeder of nice pigs, her septette at foot bearing witness to her milking qualities; Star 1 and Modesty by Enterprise, the latter the Brandon prizewinner, make up a coterie of brood sows whose progeny are valuable and good investments to any farmer. Write soon to Mr. Laidler. Prospects for pigs are good and prices are not likely to go lower, for some time at least.

Nestling in the timbered hills and hollows of the Riding Mountains, where grass and ever-running water are to be found, is the stock-breeding establishment of Jno. Logan, whose post office is Murchison. Mr. Logan is breeding Shorthorns, besides having some of the finest grade cattle to be found in Manitoba, as is shown by the prices he gets, \$25 to \$30 when six months old. The stud male is Master Butterfly 30675, by Robbie O'Day, a level, reddish roan, well covered over the loin, fairly well let down in the twist and hind flank, and a good handler. The original cow is Cherry Bloom 14826, a square-butted, good-handling red cow, by Knight of Waterloo 3380. A granddaughter, Salfix, is probably the plum of the herd, a roan, good through the heart and over the back, although a wee bit high at the tail. All the females trace to old Cherry Bloom, some of whom carry the blood of Prince Charlie 23011, a bull that did great service in the herd in days gone by. One of the most convincing arguments we have heard, in view of the excellence of the stock, fell from the lips of the proprietor regarding the benefits to be derived from agricultural-college teaching. Mr. Logan stated that his live-stock knowledge at the start was limited, but that he was greatly assisted by the notes on live stock taken by his brother when a student at an agricultural college.

BINDER TWINE CO.

The first general meeting of the shareholders of the Brandon Binder Twine Co. was held in the City Hall last month, and fully three hundred shareholders were in attendance. Mr. J. Hanbury occupied the chair, and Mr. A. E. Tanner submitted the report of the directors. The report of the auditor, Mr. Hy. James, was presented, showing that the number of shareholders on December 31st was 2,535; the number of shares sold, 4,011; shares unsold, 989. The auditor also presented an abstract statement of the receipts and disbursements of the secretary-treasurer of the company from the beginning, August 31st to December 31st, 1901. The statement showed that after paying, on account of the contract for the factory and warehouse, \$5,175, there is a balance on hand of about \$5,250. By-laws for the company were framed, and at the evening session the following directors were elected for the present year: Messrs. John Hanbury, N. W. Norton, Frank Smith, E. L. Christie, W. Zink, V. E. Tanner, of Brandon, and W. T. Johnstone, of Wawanesa.

Wolsley farmers will put up a grain elevator with a capacity of 35,000 bushels. The committee in charge are M. Snow, Levi Thomson, Geo. P. Campbell, A. Perley, A. B. Bompas, R. L. Broad.

There are few farms in Manitoba, or in Canada for that matter, that are more systematically managed than that of Henry Nichol, which is located about four miles north of the City of Brandon. The farm consists of two half-sections. A thorough system of cultivation is followed, with a grass crop taking a more and more prominent place in the rotation. For many years considerable attention has been given to growing seed grain and grasses of the standard varieties. A small quantity (some 600 bushels) of red Fife wheat, grown from very carefully selected stock, is now offered for sale, and also a quantity of native rye grass seed. Freedom from noxious weeds is one of the things that is assured in buying seed grown on Fairview Farm. Permanent buildings have not yet been erected, except a small, very comfortable horse stable. The surroundings, however, have been well laid out, and to the west and north extensive shelter-belts have been grown. On the west side are six rows, about eight feet apart, the outer row being willows and the balance mostly maple. Mr. Nichol says that two rows of willows alone would be sufficient to break the force of the wind and catch the snow. An advantage of the willow is that it is not liable to break down with the snow as is the maple. This windbreak should be set at least 100 feet outside of garden or ornamental plot. Within the shelter belt Mr. Nichol has laid out an attractive ornamental shrubbery, an orchard of small fruit and vegetable and flower garden. It is worthy of special notice that in this district of good farms and well-laid-out garden plots, Mr. Nichol was awarded first prize in the competition offered by the Brandon Horticultural Society for the best laid-out and best kept farm garden and grounds.

On this farm Clydesdale breeding has received considerable attention, and animals bred on the farm have won numerous prizes at the leading fairs. Among the stock are the get of such noted horses as Charming Charlie, Prince of Wales, and Burnbrae. Light horses have also received attention, and a number of colts are at present in the stalls, by the German Coach, Pascha. A small herd of dairy cows of mixed breeding are also kept and the foundation for a Shorthorn herd has been laid by an importation of two good females from the herd of the late Peter Bathgate, Framosa, Ont.

The poultry yard is not overlooked, and a fine flock of over 100 fowls is made to return good profit under the management of Mrs. Nichol. This flock was graded up by the use of pure-bred White Leghorns, but the birds not being large enough for table fowl, a cross of the White Rock has been introduced with satisfactory results.

NOTICE.

THE 1902 CATALOGUE of the Moline Plow Company is to hand, well bound and illustrated. The various implements manufactured by this up-to-date firm are described in detail, and prices given for the various parts. Plows and potato diggers, corn planters and cultivators, drills, harrows and rakes are all made by this firm, whose goods have a world-wide reputation.

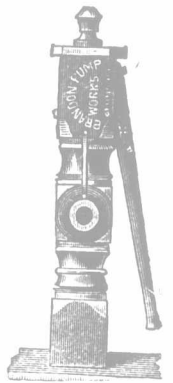
EVERY FARMER

SHOULD HAVE A
PUMP.

Do you want the best?
Then try one of my

20th Century Cattle Pumps.

These pumps fill a pail in three strokes. I keep a full line of wood pumps and repairs of all sizes. Sole agent for Myers' Brass Lined Cylinder Pumps, and Hayes' Double-acting Force Pumps. Satisfaction guaranteed. Write for catalogue. Address: **BRANDON PUMP WORKS** (H. CATER, PROP.), Box 410. Brandon, Man.



**FOR SALE:
DRAFT HORSES
OF ALL AGES.**

OWING to lack of range, we have decided to cut our herd of draft horses down to one-half and sell 2,000 head at greatly reduced prices. This great selection of mares, geldings and growthy youngsters of all ages represents the results of seventeen years of judicious mating to strictly high-class Percheron, English Shire, Clydesdale and Hackney sires. We can furnish high-grade brood mares and fillies with foal to imported and home-bred registered stallions, and have always on hand a large and first-class selection of registered and high-grade Percheron and English Shire stallions, also registered mares and fillies of same breeds. Correspondence solicited. Inspection invited.

LITTLE MISSOURI HORSE COMPANY,
W. G. CLARK, SUPT. GLADSTONE, NORTH DAKOTA.

\$5,000

IN final disposition of the persistent jugglery of names by a would-be competitor in such regard we offer Five Thousand Dollars to be divided in equal amounts of One Thousand Dollars each between the State Experiment Stations of Wisconsin, Minnesota, Vermont, Ohio, and Cornell University, if the DE LAVAL CREAM SEPARATORS did not receive the GRAND PRIZE at the PARIS EXPOSITION, provided the concern which has indulged in so much unscrupulous advertising in this connection will, within ten days, deposit a similar amount, to be used in like manner, with Major Henry E. Alvord, Chief of Dairy Division, Department of Agriculture, Washington, D. C., if the De Laval machines did receive such an award, decision in the matter to be left to Major Alvord, who was in Paris in an official capacity, and who is undoubtedly familiar with the facts.

TESTS OF SEPARATORS.

It being agreed and a part of the understanding that such amounts shall be used by the various Experiment Stations named in the conduct and publication during the year 1902 of thorough practical-use tests of all makes of CREAM SEPARATORS or other creaming devices which may choose to enter same.

THE DE LAVAL SEPARATOR CO.

New York, January 2, 1902.

Alex. Galbraith, Janesville, Wisconsin,

OFFERS FOR SALE AT

The Beaubier Stables, Brandon, Man.,
An extra superior lot of Imported

Clydesdale Stallions.

Also a few choice

Hackneys, Yorkshire Coachers and Percherons.

Every horse in the lot, without exception, is a prizewinner, and all thoroughly guaranteed. If interested, call and examine this superb lot of horses, or write for particulars at once to—

JAMES SMITH, AGENT, BRANDON, MANITOBA.

W. S. LISTER, MARCHMONT STOCK FARM, MIDDLELECHURCH, MAN.

SCOTCH SHORTHORNS

Of the celebrated Glenythan family. Prince Alpine (imp.) and Baronet (imp.) at head of herd.

80 HEAD TO SELECT FROM.

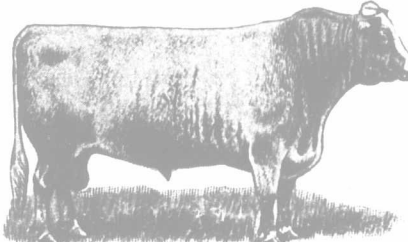
BERKSHIRES: Two boars at \$15.00 each (orated); sows in pig at \$25.00. Farm seven miles north of Winnipeg. Telephone connection.

PRAIRIE HOME STOCK FARM

CLYDESDALES, SHORTHORNS, SHROPSHIRE, BERKSHIRES and YORKSHIRES.

Shorthorn herd headed by Judge, imp. Jubilee, and Ribbon's Choice, Ayrshires of the best quality; herd headed by Surprise of Burnside, Oak Lodge Mighty 7th and a large number of high-class sows represent the approved bacon type of Yorkshires. The Berkshire boar, Victor (Teasdale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm one mile from the station. Visitors welcome. Prices and quality right.

THOMAS GREENWAY, PROPRIETOR,
Jas. Yule, Manager. Crystal City, Man.



Shorthorns

I SHALL HAVE ON SALE AT

Early's Livery Stable, Princess St., Winnipeg,

LIVE STOCK CONVENTION WEEK,

FEBRUARY 17th TO 21st, 1902,

BULLS AND HEIFERS

Specially selected by myself recently in Ontario. Good individuals, with correct ancestry. Call and see them.

Andrew Graham, Pomeroy, Man.

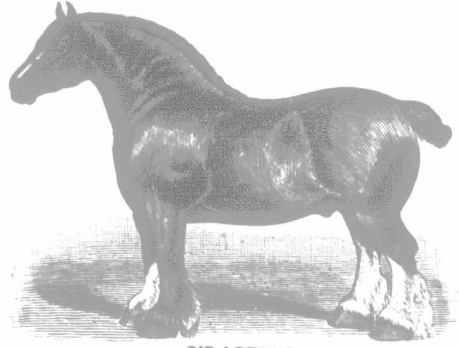
Please Mention Farmer's Advocate.

FOR SALE:
The Clydesdale stallion,
Patrick McGregor 8386.

Foaled Apr. 19th, 1895. Sire Prince Patrick, by Prince of Wales; dam Judy 3956, by McGregor.
For particulars, apply to—

John Wanless, Belmont P. O., Manitoba.

J. E. SMITH



SIR ARTHUR.

OFFERS FOR SALE: two imported Clydesdale stallions, rising 4 years old, descended from Darnley (222) and Prince of Wales (675) and two Canadian-bred Clydesdale stallions from imported stock. Clydesdale mares and fillies. All registered.

One hundred and fifty head of Shorthorns—bulls, cows and heifers, Golden Measure (imp.) and Lord Stanley II stand at the head of the herds. I will sell at lower prices than any man in Canada for the same class of stock.

A number of choice improved farms for sale or to rent. Address—

J. E. SMITH,
Smithfield Ave.,
Telephone 4. P. O. Box 274. BRANDON, MAN.

One Clydesdale stallion,

Five years old, good bone, and good stock-getter. For breeding, price, etc., apply to

W. J. CHURCH, Box 189, ARTHUR, ONT.

FARM HORSES

For Sale.

Clyde and Shire Bred.

Prices reasonable per carload. Write:

High River Horse Ranch,

HIGH RIVER, ALBERTA.

For Sale: Clydesdales, Shorthorns.

Exceedingly well-bred mares, fillies, one (imp.) two-year-old stallion. Bulls, cows, heifers (all ages) from Caithness. Apply: **PURVES THOMPSON,** Pilot Mound, Man.

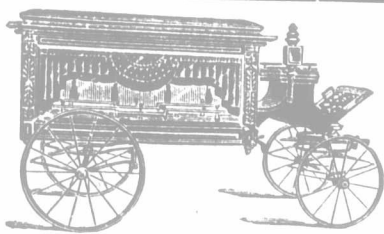
LAILDLER'S HERD

OF LARGE ENGLISH BERKSHIRES

Are still to the front. Some grand sows, bred for the spring trade. Have two fine litters ready to ship about March 15th.

Now booking orders. Call or write for prices.

Jos. Laidler, Neepawa, Man.



VINGENT & MACPHERSON,

The Leading Western Undertakers and Embalmers.

Rosser Avenue, Brandon.

WINNIPEG Business College

Ten experienced teachers employed.

COURSES: BUSINESS, SHORTHAND AND TELEGRAPHY.

Write for full information to

G. W. DONALD,
SECRETARY.

IN WRITING
PLEASE MENTION FARMER'S ADVOCATE.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office, at the price stated.

PHYSICS OF AGRICULTURE.—A work which should be consulted by farmers has recently come to the editorial table. It is a text-book of the Physics of Agriculture. This up-to-date work is written by F. H. King, late Professor of Agricultural Physics in the Wisconsin Agricultural College and Experiment Station, and now head of the Department of Agricultural Physics at Washington, D. C. As the author aptly puts it, "the great need of agricultural practices at the present time is a keener appreciation and a more thorough comprehension of the principles which underlie them. . . . the laws and principles which control his practice each farmer must know before he can secure his results with the greatest certainty and at the least cost." This work is easily understandable by the farmer, and has been used in the short course in agriculture at Madison. We briefly call attention to some of the chapters in the book which are of special interest to farmers. The maintenance of country roads; farm motors, gasoline and steam engines and windmills; farm machinery and the construction of silos; under-draining, etc., are all subjects of vital and daily interest to the farmer. Professor King has succeeded in making his book both interesting and practical. The problems of soil moisture as related to cultivation are well handled. The explanations regarding the principles of the draft of horses are clear and easily understood. It is hardly necessary to say more of the book, except to strongly advise its addition to every farmer's library. At the present time we are unaware of any work on the same subject in the English language which at all covers the ground and is as useful to the agricultural student as is this book. The price, \$1.75, places it within the reach of all. It is well illustrated, and is published by the author at Madison, Wis. It can be supplied from this office at the price mentioned above.

A third edition of Veterinary Notes has just been issued by J. A. Carveth & Co., Toronto. This work is a careful compendium of nearly all the obsolete theories regarding disease, and as a relic of antiquated notions and what used to be practiced in the earlier history of Canadian veterinary schools, certainly deserves a place in the archives. The English used in the text is of a kind incompatible with scientific instruction. It is unfortunate for the veterinary profession in Canada that such a volume is extant purporting to be a sample of the veterinary instruction delivered at the pioneer veterinary college of America, the Toronto institution. Specimens of the information (2) given are herewith submitted. Under Contagious Pleuro-pneumonia, page 131: "It is a disease which is interesting to some people in this country, as it exists to a more or less extent in America." (Of course the British embargo will not be raised.—Ed.) On page 125, glanders is said to be spontaneously produced. We do not find tuberculosis listed as a contagious disease. Other equally spicy quotations might be made, but we desist. The price of the book is \$2.50.

Richard Lee, Bridge Creek, has added the bull calf, Lyndhurst of Plainview, to his herd.

One of the veteran Shorthorn breeders of the Neepawa district is Robt. Scott, whose cattle show ample evidence of his belief in the old adage that "Feed is half the breed." He has now on hand two promising young bulls, Robbie Burns (19 months), a good-handling roan, with a well-covered back, and the growthy, thick-mottled roan, Neepawa Chief, either of which would be valuable on a ranch or to head a herd of grades, both being well grown. A few of the females have been winners at the local fair. A roan three-year-old heifer attracted immediate attention owing to her capacity of barrel and fleshing abilities; a stable mate is a very meaty, strong-backed, white four-year-old heifer.

Herefords. The meat-makers and stock-getters. FOR SALE: bulls of the right age and type. Also Barred Rocks—eggs or chickens. **FRED WEST, DELEAU, MANITOBA.**

AS SUPPLIED TO

H. R. H. THE PRINCESS OF WALES

Ogilvie's Hungarian Flour.

Ogilvie's New Rolled Oats.

Ogilvie's Whole Wheat Flour.

Ogilvie's Royal Breakfast Food.

ASK YOUR GROCER FOR

OGILVIE'S PRODUCTS

THE BEST THE WORLD PRODUCES



THE OLD RELIABLE

LIGHTNING HAY PRESSES

HORSE AND STEAM POWER CATALOG FREE

KANSAS CITY HAY PRESS CO

439 MILL ST. KANSAS CITY MO

DON'T

BUY A SEPARATOR UNTIL YOU HAVE SEEN THE

National.



EXAMINE

The simplicity of the design.

All wheels and bearings protected, being perfectly safe in the hands of a child.

It has anti-friction ball bearings.

Few parts to wash—only two pieces inside the bowl.

The National is made by the Raymond Mfg. Co. of Guelph, whose success with the celebrated Raymond Sewing Machine is sufficient guarantee of the high finish and workmanship.

In 1901 five machines a day were manufactured. For 1902 the capacity is increased to 25 machines per day, showing the satisfaction given by the National in the past two years.

The 1902 National contains all the strong points found in other separators, and is placed on the market with the guarantee of being the best and most up-to-date machine in every particular offered to the Western farmers to-day.

The National will well repay investigation by intending purchasers.

National No. 1, capacity 330 to 350 lbs. per hour.

National No. 1 A, capacity 450 to 500 lbs. per hour.

AGENTS WANTED IN UNREPRESENTED DISTRICTS.

JOSEPH A. MERRICK, P. O. BOX 518, WINNIPEG,
GENERAL AGENT FOR MANITOBA AND N.-W. T.

THE RAYMOND MFG. CO. OF GUELPH, Ltd., GUELPH, ONT.

WE ALSO MAKE GOOD SEWING MACHINES.

Geo. Kerr, Franklin, has made a start with Shorthorns, having purchased a few young things of Sibbald's and Gardhouse's breeding. The heifers are Butterlys and Sybils, the bull calf being a grandson of Guardsman.

Jno. Munton, Melbourne, has invested in some new blood from Jno. G. Barron's Fairview Stock Farm.

John Traquair, the well-known Polled Angus breeder, of Welwyn, Assa., reports, under letter of recent date, that his Angus herd is doing particularly well this winter, and so far the crop of calves has been most satisfactory. Among recent sales is the bull calf, Piper of Nemo, to Percy F. Weiss, Pease, Assa. This calf is by King Kyma, out of Kirkton Bridget, and with his mate won the Pure-bred Cattle Breeders' diploma for the best two calves of the breed, bred and owned by exhibitor, at the Winnipeg Industrial last July.

ANDREW GRAHAM'S IMPORTATION OF SHORTHORNS ON VIEW AT WINNIPEG

Mr. Andrew Graham, Pomeroy, Man., as announced in his advertisement in this issue, will have on view at Early's livery stable, Princess St., Winnipeg, during the live-stock convention week, Feb. 17th to 21st, a choice shipment of young Shorthorn bulls and heifers, personally selected by himself on the occasion of his recent visit to the east. The selections have been made with a view to superior individual merit and correct and approved breeding. Mr. Graham's sound judgment and success as a breeder of high-class cattle will be a sufficient guarantee of the quality of the cattle. The cheap railway fares to Winnipeg during the week of the bonspiel and conventions make this a very favorable opportunity to see this stock and take in the breeders' meetings at the same time.

CONVENTION WEEK IN WINNIPEG

February

18

AND

19

Live Stock and Horticultural Associations.

DEMONSTRATIONS IN JUDGING LIVE STOCK AND VEGETABLES.

JUDGING 1.30 P. M. EACH DAY.

February

20

AND

21

Living animals will be used in stock-judging work. Class-room: J. I. Case Warehouse, corner Princess and James streets. Horticultural work in City Hall.

Forenoon and Evening Sessions: Election of officers, business, and addresses by prominent speakers.

Horticultural convention will be addressed by Prof. Macoun, of Central Experimental Farm; Superintendents Bedford and Mackay, of Brandon and Indian Head Experimental Farms; and others.

February 18th.—Sheep and Swine Breeders.
Swine—Prof. J. J. Ferguson,
Michigan Agr. College.
Sheep—Dr. A. G. Hopkins.

February 19th.—Pure-bred Cattle Breeders.
Beef Cattle—Prof. Curtiss.
Dairy Cattle—Prof. J. J. Ferguson.

February 20th.—Horse Breeders' Association.
Draft and Light Horses—
Dr. J. C. Curryer, *Minnesota.*

February 21st.—Horticulture.
Vegetables and Field Roots—
Superintendent Bedford.

Single-fare return tickets from all points for sale from February 17th to 19th; good to return until February 24th.

For programme and full particulars address the secretaries:

Horse Breeders'—
George Harcourt, Winnipeg.

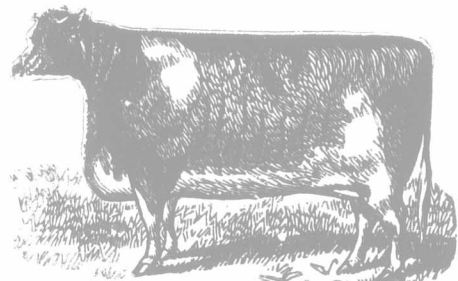
Sheep and Swine and Pure-bred Cattle Breeders'—
George H. Greig, Winnipeg.

Horticultural Society—
Melvin Bartlett, Winnipeg.

Thorndale Shorthorns.

25 BULLS, and about
100 FEMALES, of all ages, to choose from.

JOHN S. ROBSON, Manitou, Man.



PIONEER HERD OF SHORTHORNS
Won the gold medal at the last Winnipeg Industrial Exhibition; also first for bull and two of his get, first for cow and two of her progeny, and numerous prizes for individuals. They were bred right here, and I can usually show a few generations of their ancestors, and am always pleased to show them.

WALTER LYNCH, Westbourne, Man.
P. O., Railway and Telegraph.

SHORTHORNS.



YEARLING AND TWO-YEAR-OLD

BULLS & HEIFERS

By my champion bulls, Topsman's Duke and imported Nobleman. One of these is Lord Roberts, by Nobleman, out of \$1,000 Jenny Lind. I must part with both these great bulls, because their own stock is growing up. Write early. Both are sure stock-getters.

JOHN G. BARRON, CARBERRY, MAN.

IN WRITING
PLEASE MENTION FARMER'S ADVOCATE.

OAK GROVE FARM.



Shorthorns and
Yorkshires.



Four choice young bulls by that grand-bred bull, Masterpiece, by Grand Sweep (imp.). A choice lot of heifers by Masterpiece, Knuckle Duster (imp.), Lord Lossie 2nd, and Pleasant King.
Boars fit for service. Brood sows and suckers.
I am offering bargains to make room.
Also a fine lot of birds: W. P. Rocks,
Correspondence solicited.
JAMES BRAY, LONGBURN, MANITOBA.

GALLOWAYS:

Bulls and heifers for sale.

APPLY TO

T. M. CAMPBELL,

"HOPE FARM,"

St. Jean Baptiste, Manitoba.

D. FRASER & SONS,

EMERSON, MAN.

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

SHORTHORNS

I am offering three red bulls, one aged, of the heavy-fleshed type, also well-bred females. LEICESTERS of both sexes for sale. GEO. ALLISON,
R. R. STATION, ELKHORN, C. P. R. Burnbank, Man.

SHORTHORNS FOR SALE

of Scotch breeding, seven bulls and forty cows and heifers, mostly all in calf or calf at foot. A few Clydesdales of both sexes.
Geo. Rankin, Melrose Stock Farm, Hamiota, Man.

Shorthorns, Shropshires, Yorkshires,
Buff Plymouth Rocks.

YOUNG STOCK OF ALL CLASSES FOR SALE.

J. S. LITTLE, OAK LAKE, MAN.

FOR SALE: **SPELTZ** BRIGHT AND CLEAN
Price: 75 cents per bushel.

Will be sent to any address.

H. C. SIMPSON, VIRDEN, MANITOBA.

RIVEREDGE FARM.

Shorthorn Cattle and Standard-bred Horses
Herd headed by Sittytton Stamp (imported). Females bred from or tracing to Windsor (imported).
A. TITUS, NAPINKA, MAN.

CHOICE

Shorthorn Bulls FOR SALE.

All nearly 2 years old. Apply for pedigrees and particulars:

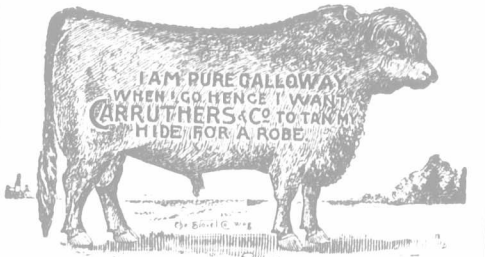
FOREMAN, Castle Farm, TEULON, MAN.

Shorthorns, Tamworths and Yorkshires FOR SALE.
10 bull calves for sale, 8 to 11 mos. old. 3 Yorkshire boars, fit for service. 1 Tamworth boar, fit for service. White Wyandotte cockerels.
W. G. STYLES, ROSSER, MAN.

HEREFORDS.

The range favorites. Good rustlers and feeders. Prizewinners, either male or female, for sale.

JOHN WALLACE, CARTWRIGHT, MAN.



"What a Wise Old Chap!"
He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.

CARRUTHERS & CO.,
TANNERS,

and dealers in hides, wool, sheepskins, furs, tallow, etc.
9th Street, Brandon, Man.

Shorthorns and Clydesdales.

Six Shorthorn bulls for sale, sired by Indian Warrior 2nd and Sittytton Hero 7th, sweepstakes bull at Winnipeg in 1900 and 1901. Females of the best Scotch families, headed by the best bulls (regardless of price), makes this herd second to none for breeding and quality. Correspondence solicited.

J. G. WASHINGTON,
Elysee Stock Farm, Ninga, Man.

SHORTHORNS. Persons wishing to purchase young stock of either sex will do well to call on us before buying elsewhere. Some youngsters of choice quality and breeding for sale at reasonable prices. Correspondence solicited.
PAUL BROS., Billarney, Man.

J. H. KINNEAR & SON, SOURIS, MAN.,
BREEDERS OF SHORTHORNS.

IMP. BARON'S PRIDE 28855 head of the herd. Three young bulls for sale, aged 14, 10 and 9 months.

Maple Grove Stock Farm

SHORTHORN BULL CALVES FOR SALE.

From three months to eight months old. Sired by Lord Stanley 25th - 29247-. Also have left a few

P. R. COCKERELS.

WALTER JAMES,
ROSSER, MAN.

15 mile west of Winnipeg, on main line C. P. R.

Lakeview Stock Farm.

SHORTHORNS FOR SALE.

I am offering for sale bulls and heifers of good quality. Cheap if sold soon.

THOMAS SPEERS,
OAK LAKE, MANITOBA.

SHORTHORNS

Have sold all bulls of serviceable age, but have a few choice females to go yet. Prices right; pedigrees good; cattle typical.

Wm. McDonald, Pilot Mound.

YORKSHIRES!

Boars all sold. A few sows left. Order at once or you will be too late. Some choice White P. Rocks and Pekin ducks. Address:

KING BROS., Wawanesa, Man.

Pedigreed Improved Yorkshire Pigs.

Sows and bears, four months old, for sale.

YORK SHAW, MIDNAPORE, ALTA.

Chambers' Barred Rocks are winners. The shows prove it. Read the record. Has also Blk. Minorcas, Hamburgs, S. C. B. Leghorns, and S. L. Wyandottes. Eggs, \$2 a setting. See my exhibit at the next Brandon show. Stock bred by me is fit to head any yard. Write for particulars. **THOS. H. CHAMBERS, Brandon.**

CYPHERS INCUBATORS

Gold medal at Pan-American; first at Winnipeg Industrial, 1900 and 1901. Ten years' guarantee.

POULTRY SUPPLIES.

Fresh cut bone, 3c. lb. \$2.50 per 100 lbs.
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- Alton, A. L. McGregor.
- Baker, G. P. Russell.
- Braund, F. J. Wawanesa.
- Brocken, G. E. Clan William.
- Clark, J. S. Russell.
- Coxe, S. A. Brandon.
- Cruikshank, J. G. Deloraine.
- Dann, J. Deloraine.
- Dunbar, W. A. Winnipeg.
- Elliott, H. James Brandon.
- Fisher, J. F. Brandon.
- Fowler, W. A. Souris.
- Freel, B. E. Ningsa.
- Golley, J. Treherne.
- Graham, M. Dauphin.
- Harrison, W. Cypress.
- Haston, J. Alexander.
- Henderson, W. S. Carberry.
- Hilliard, W. A. Minnedosa.
- Hilton, G. Portage la Prairie.
- Hinman, W. J. Winnipeg.
- Hopkins, A. G. Neepawa.
- Hurt, W. N. J. Belmont.
- Irwin, J. J. Stonewall.
- Marshall, R. J. Macgregor.
- Lake, W. H. Miami.
- Lawson, R. Shoal Lake.
- Lipsett, J. H. Holland.
- Little, C. Winnipeg.
- Little, M. Pilot Mound.
- Little, W. Boissevain.
- McFadden, D. H. Emerson.
- McGillivray, J. Manitou.
- McGillivray, C. D. Binacarth.
- McKay, D. H. Brandon.
- McLaughry, R. A. Hoosomin.
- Martin, W. E. Winnipeg.
- Monteith, R. A. Killarney.
- Marshall, R. J. Killarney.
- Murray, G. P. Griswold.
- Nagle, J. W. Winnipeg.
- Reid, D. D. Hartney.
- Robinson, B. E. Emerson.
- Rombough, M. B. Morden.
- Rowcroft, S. V. Birtle.
- Rutherford, J. G. Portage la Prairie.
- Rutledge, J. W. Boissevain.
- Sourfield, R. C. Manitou.
- Souls, W. A. Gladstone.
- Smith, W. H. Carleton Place.
- Snider, J. H. Emerson.
- Stevenson, C. A. Carleton Place.
- Stevenson, J. A. Carleton Place.
- Svenerton, W. Carleton Place.
- Taylor, W. R. Portage la Prairie.
- Thompson, S. J. Winnipeg.
- Torrance, F. Winnipeg.
- Waldon, T. Killarney.
- Walker, J. St. C. Minto.
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- Williams, A. E. Winnipeg.
- Young, J. M. Rapid City.
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The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.

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GOSSIP.

J. M. Gardhouse, Highfield, Ont., reports his sales this season in all lines of stock the best he has had for many years, the demand for females being very brisk. Since the International Show at Chicago 17 head of Leicesters have been sold, among the lot the ram, The Sultan, winner of the first prize at Chicago, and the shearing ewe that won second at the same show. Some of the late sales in Shorthorns are: Violet of Rosedale, by Imp. Guardsman, and half-sister to St. Valentine and Violet of Hadden Hill, to Wm. Wilson, Brampe-

ton. Charissa's Gem, a pure Scotch heifer, of the Claret family, by the Mar Missie bull, Scottish Pride, and a good red bull calf by Imp. Loyalty, also Crimson Lady, of the Crimson Flower family, sired by Imp. Prime Minister, and Fairy Flake, by Imp. Prime Minister, dam by the Brawith Bud bull, Guardsman, to C. Hintz & Sons, Ohio. We have still four choice young bulls, three reds and one roan, from 10 to 15 months. Our recent purchase, the imported Shire stallion, Newham's Duke, is moving along nicely and is admired by all who have seen him, although he is only in growing condition. He has quality with quantity, and that is what is required.

GOSSIP.

George Rice, Currie's Crossing, Ont., has recently made a sale of six fine Holsteins from his Brookbank Farm herd, including the noted cow, Losco's Pride, winner of first prize and championship at the Toronto and Pan-American Exhibitions, to Dr. A. L. Lewin, Pittsburg, Pa.

ISALEIGH GRANGE AYRSHIRES.

The engraving, on another page in this issue, of the young Ayrshire bull, Utopia 13726, is representative of the young stock in the noted Isaleigh Grange herd of Mr. J. N. Greenshields, Danville, Que. He was sired by that excellent bull, Matchless, perhaps the best son of Imp. Glencairn 3rd, and of the grand old cow, Imp. Nellie Osborne, the champion Ayrshire female of the World's Fair at Chicago in 1893, and is out of the equally grand cow, imported Nellie of Barcheskie, whose prizewinning record is a remarkable one, having won first at Kilmarnock in 1888, Nellie Osborne being second; 1st at Ayr and Kirkcubright in 1889, and first and gold medal at Highland Society Show, and first at the Royal Show of England. This young bull has model dairy form and ancestry, and should find a place at the head of some high-class herd. In the advertisement, in another column, will be found a statement of the stock offered for sale at Isaleigh Grange.

Dominion Sheep Breeders' Annual Meeting.

The annual meeting of the Dominion Sheep Breeders' Association was held in the Palmer House, Toronto, January 24th, the President, Mr. A. W. Smith, in the chair. The Secretary-Treasurer's financial statement showed the receipts for the year as having been \$2,083, and the expenditures \$2,591.18, leaving a balance due the treasurer of \$508.18. Committees were appointed to act with those from the other live-stock associations regarding improvements in the management of fairs and the preparation of a model prize list for general adoption by fair associations, and also in reference to Government assistance towards an exhibit of Canadian live-stock at the St. Louis Exhibition in 1903. The following classification adopted by a committee of the Association at a meeting in Toronto during the Industrial Exhibition, 1901, was submitted:

- 1.—Ram, two shears and over.
- 2.—Shearling ram.
- 3.—Ram lamb.
- 4.—Shearling ewe.
- 5.—Ewe lamb.
- 6.—Pen, ram lamb and three ewe lambs, bred by exhibitor.
- 7.—Pen, ram any age; two shearing ewes; two ewe lambs.
- 8.—Pen, Canadian bred, not shown in section 7; ram any age; two shearing ewes; two ewe lambs; bred and owned by exhibitor. A resolution was adopted amending this classification, by making sections 7 and 8 read: Pen, ram any age, two ewes one year old and under three, and two ewe lambs.

The following officers were elected for 1902: President, R. H. Harding, Thornedale; Vice-President, J. M. Gardhouse, Highfield; Secretary-Treasurer, A. P. Westervelt, Toronto. Directors—General Director, A. W. Smith, Maple Lodge; Cotswolds, D. McCrae, Guelph; Leicesters, A. Whitelaw, Guelph; Hampshires and Suffolks, John Kelly, Shakespear; Southdowns, John Jackson, Abingdon; Oxfords, James T. Gibson, Denfield; Lincolns, John T. Tolton, Walkerton; Merinos, W. M. Smith, Fairfield Plains; Shropshires, D. G. Hanmer, Mt. Vernon; Ontario Agricultural College, G. E. Day, Guelph. Auditor, J. M. Duff, Guelph. Delegates to Fair Boards: Toronto Industrial, J. M. Gardhouse, Highfield, and John Jackson, Abingdon; Ottawa, F. W. Hodson; London, A. W. Smith and A. P. Westervelt; Provincial Winter Fair, A. W. Smith, John Jackson and James Tolton.

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GOSSIP.

Referring to the engraving, on another page in this issue, of Mr. Richard Gibson's splendid prizewinning yearling Shropshire wether, the following statement represents his winnings in December last at the International and the Ontario Provincial Winter Shows: At Chicago he was first in his class, also first in American Shropshire special, and one of the pair that won the silver cup for best pair of wethers in the show, any age or breed. He was first in his class at Guelph, and first for American Shropshire special. He was defeated only once, and that time by a lamb from same flock, when showing for best Shropshire wether, any age or breed. The decision was not popular, but the judge at Chicago said the lamb would dress out the best carcass.

MR. C. B. JEFFS' DISPERSION SALE.

On Feb. 18th, as advertised in this issue, Mr. C. B. Jeffs, Bond Head, Ont., having leased his farms, will sell at auction, without reserve, his entire herd of 20 Shorthorn cattle and his flock of 45 Southdown sheep, at his farm, near Bradford on the Northern division and Heaton on the North-western division of the G. T. R., about 40 miles north of Toronto. Mr. Jeffs, formerly of the firm of E. Jeffs & Sons, has a herd built on sound foundation stock, most of the cows being deep milkers, high-class bulls of Booth and Cruickshank blood having been used for many years, the young stock showing steady improvement in beefing quality, while the females yet retain in large measure their good milking qualities, which tell in the condition of the luscious calves which are raised from year to year, the bull calves finding ready sale to farmers and to breeders desiring to build up dual-purpose herds adapted to both beef and milk production, observant breeders having learned that the best milking cows are, as a rule, the best breeders. We have not at this writing the catalogue of the cattle to be sold, but enough is known of the character of the herd to justify the opinion that a useful lot of cattle will be found in this sale, and we advise all interested to note the advertisement and apply early for the catalogue, which will furnish particulars.

Since the above was in type, a letter received from Mr. Jeffs says: "The herd is in good healthy condition, and a good even lot, the cows having calves at foot or being in calf to the slashing big stock bull, Kinellar Chief 35624. The bulls are a good, even lot, of the right type. Among the heifers are a number of prizewinners, and all are in good shape. The herd was established by the owner's father in 1867, and no expense has been spared in securing good bulls to strengthen and build it up. Among the sires that have been used were: Imp. British Statesman (42847), bred at Kinellar, beaten in Canada only by Bampton Hero; Prince Arthur 3682, half-brother to the champion Sir Arthur Ingram, and fully his equal; Imported Killerby 6377, by Gravesend; Joyful Lad 18711, bred at the O.A.C.; and Prince Arthur 23377, a Centennial Isabella, of Russell breeding. The Southdowns are a grand lot. The flock was founded on Jackson stock, and the best rams procurable have been used. There will be no reserve."

Farmer's knife premium withdrawn till further announcement. Supply exhausted.

The report of the annual meeting of the Dominion Swine Breeders' Association has been crowded out of this issue, but will appear in our next.



Cured of Piles After Many Years.

Mrs. D. E. Reed, of Albany, says: "I would not take \$500 and be placed back where I was before I used the Pyramid Pile cure; I suffered for years, and it is now 18 months since I used it, and not the slightest trace of the trouble has returned." For sale by all druggists. Little book, "Piles, Causes and Cure," mailed free. Pyramid Drug Co., Marshall, Mich.—Adv. om

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WRITE FOR CIRCULARS

Dominion Cattle Breeders' Annual Meeting.

The annual meeting of the Dominion Cattle Breeders' Association was held in the Palmer House, Toronto, January 29th. In the absence of Mr. Richard Gibson, Delaware, Ont., the President, who was snowbound, Mr. A. W. Smith, Maple Lodge, presided at the opening session. Secretary A. P. Westervelt, Toronto, in his annual statement referred to the prosperous condition of the live-stock industry, and the unparalleled success of the Provincial Winter Fair at Guelph and the great value of its educational features, and the development of the live-stock trade between the Provinces, which had been very marked and gratifying.

In 1899 the value of stock purchased through the live-stock associations amounted to \$2,254. In 1900 the trade increased to \$4,958, while since January, 1901, the value of stock bought and shipped, both east and west, through the live-stock associations, amounted to over \$50,000.

The report also referred to the growth of the live-stock associations. In ten years the attendance at the Winter Fair has grown from about 500 to 20,000, and prizes offered from \$325 to \$6,863. The membership of the live-stock associations in seven years has grown from 258 to 2,204. During the past year \$97,000 has passed through the hands of the live-stock associations.

A committee was appointed to look into the matter of a live-stock exhibit at the World's Fair at St. Louis in 1903, and to seek Government assistance towards a similar exhibit to that at the Pan-American and Chicago Expositions.

A committee was also appointed to prepare a model prize list and rules for the district and township fairs, as well as the larger exhibitions, and to meet with the committee of the Canadian Fairs Association for this purpose on Feb. 18.

Officers for the ensuing year were elected as follows: President, Arthur Johnston, Greenwood; Vice-President, A. W. Smith, Maple Lodge. Vice-Presidents for Provinces: Ontario, H. Wade, Toronto; Manitoba, Hon. T. Greenway, Crystal City; Northwest Territories, Chas. W. Peterson, Calgary; Quebec, H. D. Smith, Compton; Nova Scotia, E. B. Eldrick, Annerst; New Brunswick, T. W. Peters, British Columbia, G. H. Hadwin, Duncan's; Prince Edward Island, Judge F. Hazzard, Charlottetown; Newfoundland, Hon. Thos. C. Duder, St. John's. Directors: James Bowman, Guelph, for Polled Angus; Alfred Stone, Guelph, and W. K. Gooding, for Herefords; T. Porter, Mt. Denis, and R. McCullough, Snelgrove, for Jerseys; D. McCrae, Guelph, and Robert Shaw, Brantford, for Galloways. General director, J. M. Gardhouse, Highfield, Ontario. Agricultural College representative, Prof. G. E. Day, Guelph; auditor, J. M. Duff, Guelph. Delegates: To Toronto Fair Board, John A. McGillivray, Uxbridge, and A. P. Westervelt, Toronto; to London Fair Board, R. Gibson, Delaware, and Capt. T. E. Robson, Iderton; to Brantford Fair Board, G. W. Clemons, St. George, and J. R. Alexander, Brantford; to Ottawa Fair Board, J. G. Clark and F. W. Hodson, Ottawa; to Provincial Winter Fair, G. W. Clemons, St. George; John T. Gibson, Denfield, and John Bright, Myrtle.

GOSSIP. GEO. ISAAC'S IMPORTED SHORT- HORNS AND CLYDESDALE STALLIONS.

Mr. Geo. Isaac, whose farm is at Bonanton, Ont., about 12 miles north of Cobourg station on the G. T. R., is well known throughout Canada and the United States as an importer and breeder of Shorthorn cattle and Clydesdale horses. On a recent visit by a representative of the "Farmer's Advocate," Mr. Isaac was found in the peculiar position, for an importer and breeder, of having only one pure-bred Shorthorn in his stables, being, with that single exception, completely sold out, but having a new importation in quarantine. His recent sales were: To Alexander Burns, Rockwood, Ont., the imported bull, Lord Kitchener 8393, and the imported heifers, Sunbeam 8401 and Mary 8394; to E. D. Robinson, Markham, Ont., the imported bull, Rustic Chief, Vol. 22, and the three imported heifers, Bessie 8460, Roan Rose 8398 and Dorothy Princess 8383; to James Cowan, Seaforth, Ont., the two imported heifers, Celia 10th 8381 and Queen Charlotte 8387; to W. A. Cullis, Fennell Falls, Ont., the imported bull, Lord Douglas 8392; to Hector Cowan, Pauline, Iowa, 18 head, all imported and all heifers. Mr. Isaac has at present in quarantine at Quebec 24 head, of which the Scottish Farmer says: "Mr. Sylvester Campbell, Kinellar, has just shipped from Glasgow, per Concordia, a valuable consignment of Shorthorns to Mr. Geo. Isaac, Bonanton, Ont., which consists of 16 one-year-old heifers, 7 heifer calves, and 1 bull calf. From the old-established herd at Heatherwick, Inverurie, 5 heifers of the famous Mayflower family, 3 of which are sired by the famous bull, Prince of Archers, and the others by the Merr bull, Golden Hope. The bull calf is Nonpareil Archer, out of a Kinellar-bred Nonpareil cow and sired by Prince of Archers. He is a calf of great promise and sure to be a judge's choice; in fact, Mr. Bruce says he is the best calf he ever bred. The others are of the Kinellar, Mina, Claret, Lady Ythan, Lovelace, Orange Blossom, Lovat Broadhooks, Marchioness, Primrose, Honeycomb, Brawith Bud and Maid of Promise families." Mr. Isaac expects this grand lot home about March 1st. In one of the commodious box stalls we saw the imported Clydesdale stallion, Baron, Vol. 22, sired by Royal Concoit 10271; dam Bud of Hatton Castle 10554, by Earl of Buchan 1126. He is a beautiful brown, coming four years old, as smooth as they make them, with perfect feet and legs, an extra well balanced body, good action, and altogether a very sweet horse. In another stall is the imported stallion, Gay Gordon, Vol. 22, coming four years old, sired by Prince Robert 7135; dam Lady Roy, Vol. 23, by Gilderoy 2nd 5038. He is a horse of very commanding appearance, standing 17 hands high, very symmetrically built, on the best of feet and legs, with large, flat bone, and perfect action. He is a dark bay with black points. These horses are for sale and are well worth looking after.

Canadian Jersey Cattle Club.

The annual meeting of the Canadian Jersey Cattle Club was held in the Walker House, Toronto, December 31st. There were present about 35 breeders from various parts of the Province, who showed a deep interest in the proceedings. Mr. R. J. Fleming, Toronto, presided, and in his opening remarks referred feelingly to the great loss the club had sustained during the past year in the removal by death of the President, the late Capt. William Rolph; the Chairman of the Board of Directors, Mr. W. E. H. Massey, and Mr. Everett N. Fleming, all deeply interested in and enthusiastic admirers of the "dairy queen." The year has been a favorable one for the Jersey breed. The demand for cows for family use is on the increase, and the cream trade of all our large towns and cities is now largely in the hands of Jersey breeders. Prices are somewhat higher than a year ago, and, taking everything into consideration, the breeders of Jersey cattle are to be congratulated on the good showing of their favorite breed during the year and the outlook for the future.

A committee, consisting of the Secretary and Mr. W. P. Bull, B. A., J. L. B., solicitor, was appointed to draft resolutions of condolence, have them engrossed and forwarded to the families of deceased members.

The Treasurer's report was read, showing a small balance on hand.

Mr. F. W. Hodson, Dominion Live Stock Commissioner, was present and addressed the meeting on the Pan-American so-called "model dairy" and the part played by the Canadian representatives.

Messrs. Robert Davies and the President were appointed to wait on both the Provincial and Dominion Governments to urge them to give the same assistance to Canadian live stock at the St. Louis Exhibition in 1903 as they gave to those exhibiting at Chicago and Buffalo.

The question of asking the railroads to grant passes to judges of live stock at our exhibitions was left for the Board of Directors to take action.

It was decided to alter the constitution to admit of a 2nd vice-president being appointed. The question of having the herds judged last instead of first was brought up and discussed, many breeders advocating the old plan of judging them last; others spoke strongly in favor of the present method. However, it was decided to ask the directors of the Toronto Industrial to have the herds judged last, and that all herds entered and on the grounds be brought out for exhibition.

On the kind invitation of Messrs. Bull & Son, the Club will hold a social gathering at the home of the Brampton firm about the middle of June.

Good Calves Are Raised Where

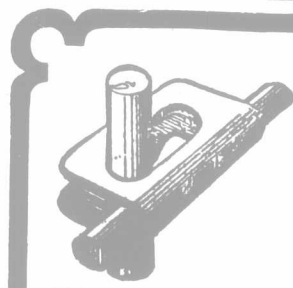
BIBBY'S "CREAM EQUIVALENT" IS USED.

FOR supplementing the supply of whole milk or for enriching separated or skimmed milk, or if necessary for raising the calves without any milk whatever after a few weeks old. It is the most popular calf food on the market.

Price: 50-lb. bag, \$2.25; 100-lb. bag, \$4.00; f. o. b. Brandon.

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Wire Fence Lock.

AGENTS WANTED

To Sell Frost Wire Fence.

The strongest fence sold, made entirely from High Carbon Spring Steel wire. No tie wires or kinks to weaken the wire. The cross wires are held in place by the patented FROST LOCK. It never weakens or slips. Exclusive territory given to good men.

THE FROST WIRE FENCE CO., LIMITED
Write for Catalog. WELLAND, ONT.



We beg to call your attention to a new and indispensable article in

Barclay's Patent Attachment

FOR THE CURE OF
BALKING AND KICKING HORSES.

Will control any vice known to a horse. Invaluable for breaking-in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address

THE BARCLAY MFG. CO., Brougham, Ont.

Officers for 1902:—President, R. J. Fleming, Toronto; 1st Vice-President, D. O. Bull, Brampton; 2nd Vice-President, D. Duncan, Don; Sec., Treasurer, R. Reid, Berlin. Board of Directors—Messrs. F. L. Green, R. McCulloch, H. C. Clarridge, George Davies, H. G. Clark. Representatives on Fair Boards—Toronto, D. Duncan and B. H. Bull; London, John O'Brien and J. A. Lawson; Ottawa, W. Conroy and W. W. Wright; Winnipeg, J. Edwards and James Wilsham; Quebec, J. P. Dawes and Lieut.-Col. Ashmead. Dominion Cattle Breeders' Association—R. McCulloch and Thompson Porter. Judges—Toronto, J. C. Snell and H. G. Clark, with R. Reid as reserve; London, H. C. Clarridge and George Latsch; Winnipeg, David Duncan; Ottawa, L. J. C. Bull; Halifax and Quebec, J. H. Smith; Woodbridge, A. F. Jackson; Brampton, R. Willis.

J. G. Washington, Ninga, reports the sale of a roan Shorthorn bull by Indian Warrior 2nd to John Oke, Boissevain, and a red bull by Wm. Edward, Ninga, the latter bull being by Sittyton Hero 7th. Mr. Washington has yet for sale four bulls, from 14 to 24 months old, by the above-mentioned bulls.

Jno. Graham, Carberry, disposed of a Shorthorn bull recently, Thos. Cann, Sidney, being the wide-awake purchaser. Good blood always tells.

A. & G. Mutch, Lumsden, Assa., write: "We have just sold to John A. Turner, of Calgary, the prizewinning filly, Eva Charming, for a handsome sum. Also several teams to farmers in the district."

Walter James, of Maple Grove Farm, Rosser, Man., called at our office recently, on his return from an extended trip among the leading Shorthorn breeders of Ontario, whither he had gone in search of animals with which to reinforce his Shorthorn herd. Among the choice things selected was a heifer bred by John Gardhouse, Highfield, Ont., sired by the noted bull, Imp. Prime Minister. Several choice individuals were selected from the herd of John Davidson, of Balsam, among which is a yearling heifer and a roan bull calf by Sittyton Hero, the sire of the Winnipeg Industrial sweepstakes, Sittyton Hero 7th, and many other winners of high repute.

FARM BOOKS.

The farmer's home without an Agricultural Library is lacking in one of the chief aids to pleasure and success. We have gone over the available first-class works on agricultural subjects, and have selected the best. See below for prices and how to obtain.

SOIL AND CROP.

- THE FERTILITY OF THE LAND.—*Roberts*. 372 pages. \$1.25.
- A BOOK ON SILAGE.—*Woll*. 185 pages. \$1.00.
- SOILING, ENSILAGE, AND BARN CONSTRUCTION.—*F. S. Peer*. 247 pages. \$1.00.
- SOILING CROPS AND THE SILO.—*Shaw*. 366 pages. \$1.50.

LIVE STOCK.

- VETERINARY ELEMENTS.—*A. G. Hopkins, B. Agr., D. V. M.* \$1.50. A practical book for stockmen and agricultural students.
- THE STUDY OF BREEDS (CATTLE, SHEEP, AND SWINE).—*Prof. Shaw*. 400 pages; 60 engravings. \$1.50.
- HORSE BREEDING.—*Sanders*. 422 pages. \$1.50.
- LIGHT HORSES—BREEDS AND MANAGEMENT. 226 pages. \$1.00.
- HEAVY HORSES—BREEDS AND MANAGEMENT. 219 pages. \$1.00.
- CATTLE—BREEDS AND MANAGEMENT. 270 pages. \$1.00.
- SHEEP—BREEDS AND MANAGEMENT. 232 pages. \$1.00.
- ANIMAL BREEDING.—*Shaw*. 406 pages. \$1.50.
- THE DOMESTIC SHEEP.—*Stewart*. 371 pages. \$1.75.
- THE SHEEP.—*Rushworth*. 496 pages. \$1.50.
- PIGS—BREEDS AND MANAGEMENT.—*Sanders Spencer*. 175 pages. \$1.00.
- FEEDS AND FEEDING.—*Henry*. 600 pages. \$2.00.

Vinton Series.

GENERAL AGRICULTURE.

- AGRICULTURE.—*C. C. James*. 200 pages. 30 cents.
- FIRST PRINCIPLES OF AGRICULTURE.—*Voorhees*. 207 pages. \$1.00.
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- CHEMISTRY OF THE FARM.—*Warrington*. 183 pages. 90 cents.
- FARMYARD MANURE.—*Aikman*. 65 pages. 50 cents.
- IRRIGATION FOR THE FARM GARDEN AND ORCHARD.—*Henry Stewart*. 1.00.
- SUCCESSFUL FARMING.—*Rennie*. 300 pages. \$1.50, postpaid.

DAIRYING.

- AMERICAN DAIRYING.—*H. B. Gurler*. 252 pages. \$1.00.
- THE BOOK OF THE DAIRY.—*Fleischmann*. 330 pages. \$2.75.
- MILK AND ITS PRODUCTS.—*Wing*. 230 pages. \$1.00.
- TESTING MILK AND ITS PRODUCTS.—*Farrington & Woll*. 255 pages. \$1.00.
- DAIRYING FOR PROFIT.—*Mrs. E. M. Jones*. 50 cents.

POULTRY.

- FARM POULTRY.—*Watson*. 341 pages. \$1.25.
- ARTIFICIAL INCUBATING AND BROODING.—*Cypher*. 146 pages. 50 cents.
- PRACTICAL POULTRY-KEEPER.—*Wright*. \$2.00.
- AMERICAN STANDARD OF PERFECTION.—*Pierce*. 278 pages. \$1.00.

APIARY.

- THE HONEYBEE.—*Langstroth*. 521 pages. \$1.50.

FRUIT, FLOWERS, AND VEGETABLES.

- VEGETABLE GARDENING.—*Green*. 224 pages. \$1.25.
- FLOWERS AND HOW TO GROW THEM.—*Rexford*. 175 pages. 50 cents.
- THE PRINCIPLES OF FRUIT-GROWING.—*Bailey*. 514 pages. \$1.25.
- BUSH FRUITS.—*Card*. 537 pages. \$1.50.
- HORTICULTURIST'S RULE BOOK.—*Bailey*. 312 pages. 75 cents.
- SPRAYING OF PLANTS.—*Lodeman*. 399 pages. \$1.00.
- THE NURSERY BOOK.—*Bailey*. 365 pages; 152 illustrations. \$1.00.
- AMATEUR FRUIT-GROWING.—*Samuel B. Green*. 5x7 inches; 134 pages, with numerous fly leaves for notes; bound in cloth, and illustrated. 50 cents.

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- THE STORY OF THE PLANTS.—*Grant Allen*. 213 pages. 40 cents.
- THE STUDY OF ANIMAL LIFE.—*J. A. Thomson*. 375 pages. \$1.75.
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WE have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of sufficient variety to suit every one, and have no hesitation in recommending them to our readers as premiums worthy of an effort to secure. These are not by any means trashy goods, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers accompanied by the cash, and take your choice.

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No. 6. 7 Jeweled Gent's Elgin in Gun Metal Case	11
No. 7. 7 Jeweled Gent's Elgin in Sterling Silver Case	14
No. 8. 7 Jeweled Gent's Elgin in 20-year Filled Case	18
No. 9. 7 Jeweled Gent's Elgin in 25-year Filled Case	21
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No. 11. 15 Jeweled Gent's Elgin in Gun Metal Case	15
No. 12. 15 Jeweled Gent's Elgin in Sterling Silver Case	18
No. 13. 15 Jeweled Gent's Elgin in 20-year Filled Case	21
No. 14. 15 Jeweled Gent's Elgin in 25-year Filled Case	25

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No. 20. Gun Metal, small size	10
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No. 23. 7 Jeweled Elgin in 25-year Filled Hunting Case	22
No. 24. 15 Jeweled Elgin in 20-year Filled Hunting Case	23
No. 25. 15 Jeweled Elgin in 25-year Filled Hunting Case	25

Description of Watches.

The accompanying cuts fairly well represent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

No. 1. American Nickel Key-wind Boy's Watch that is absolutely guaranteed to keep good time and give satisfaction.

No. 2. Gent's Nickel American O. F. Watch; stem wind, and push-in stem and turn to set hands. This is a very strong, reliable Watch.

No. 3. Same as No. 2, excepting that it has Gun Metal case instead of Nickel case.

No. 4. Is a smaller-sized Gent's Watch, has sterling silver case, O. F. Screw Back and Bezel; stem wind, and push-in stem and turn to set hands. This is the lowest-priced and most reliable Boy's or small Gent's Silver Watch that is on the market.

No. 5. Is fitted with 7-Jeweled Nickel, first-quality Elgin movement. The case is a 3-oz. O. F. Nickel case; stem wind and set; screw back and bezel case.

No. 6. Same movement in Gun Metal or Black Steel screw back and bezel case.

No. 7. Same movement with Sterling Silver O. F. screw back and bezel case.

No. 8. Same movement in 20-year guaranteed Gold Filled O. F. screw back and bezel case.

No. 9. Same movement in 25-year guaranteed Gold Filled O. F. screw back and bezel case.

Nos. 10, 11, 12, 13 and 14 are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the difference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement.

No. 15. Is a small-sized Swiss O. F. Gun Metal Chatelaine Watch.

No. 16. Is the same, only with Sterling Silver case, which can be had nicely engraved.

Nos. 17 and 18 are a good-quality American Watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys, Girls or Young Ladies.

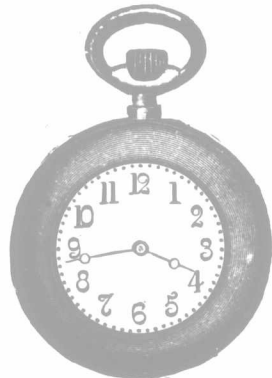
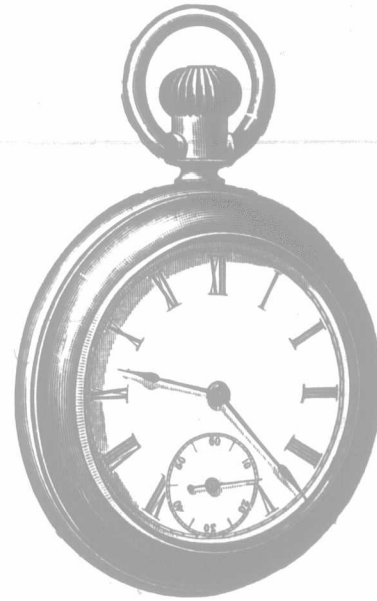
Nos. 19, 20 and 21 are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

If a nice leather wrist case is desired with these watches, send two extra subscribers.

Nos. 22, 23, 24 and 25 are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-Jeweled Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

When making your choice of Watch as premium, be sure to mention its number as given in premium list, also whether Lady's or Gent's.

The WM. WELD CO., Ltd., Winnipeg, Man.



GOSSIP.

Jno. Graham, Carberry, has sold a Shorthorn bull to Thos. McGregor, Carberry.

W. E. Baldwin, of Manitow, Man., reports the demand for Tamworth hogs in excess of supply. "Farmers," he says, "are beginning to find out that the Tamworth cross makes the bacon the city markets call for." He is making an importation of young stock from Ontario about the first of March. Among recent sales reported are: One sow to Thomas Cole, Opawaka; one boar to J. E. Noble, Killarney; a boar and sow to W. A. Doyle, Beulah, and the Winnipeg Industrial diploma boar, Dr. Leyds, to W. L. Trann, Crystal City.

Dispersion of Shorthorns and Southdowns, ON TUESDAY, FEB. 18TH, 1902.

We will sell on above date our entire herd of 29 Shorthorns and 45 Southdowns, together with the usual farm stock and implements. Trains met at Beeton and Bradford Stations. Catalogues on application. Without reserve, as proprietor has leased his farms.

W. J. PHILLIPS, Auctioneer. C. B. JEFFS, BOND HEAD, ONT.

SECOND ANNUAL ONTARIO PROVINCIAL AUCTION SALES

OF PURE-BRED CATTLE AND SWINE will be conducted under the auspices of The Dominion Cattle, Sheep and Swine Breeders' Associations

At OTTAWA, ONT., FEB. 12th, 1902, and at GUELPH, ONT., FEB. 26th, 1902.

Selected stock. Nothing but good representatives of each breed will be allowed to enter and be put up for sale. Orders to buy may be placed with the Secretary, and will be honorably discharged.

Reduced Passenger Rates. Special Rates to Buyers.

A grand opportunity for anyone wishing to procure registered stock. For copy of rules, catalogue and full particulars apply to

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WM. SMITH, COLUMBUS, ONT., IMPORTER AND BREEDER OF Clydesdale Horses & Shorthorn Cattle

FOR SALE: TWO EXTRA GOOD SHORTHORN BULLS

Twenty months old; red; also younger ones, as well as a number of heifers or young cows in calf or calf at foot.

YORKSHIRE SWINE—BOARS AND SOWS.

RICH. GIBSON, DELAWARE, ONT.

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BREEDER OF CLYDESDALE HORSES and SHORTHORN CATTLE.

CLYDESDALES

Shires and Hackneys.

OUR new importation of Clyde, Shire and Hackney stallions, comprising winners at leading shows in England and Scotland, arrived at our stables January 22nd. We have now over 20 imported stallions, all of which we are offering at living prices, including the champion Shire stallion, Belshazzar.

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A Good 7-Wire Coiled Spring Fence

Woven 12 inches apart, will cost you for labor and material only 27c. per rod if you buy a

LONDON FENCE MACHINE

Then who would not fence his farm? The LONDON stands for all that is best and most economic in wire fencing; twice the fence for the same money; twice the quality and durability in the fence; twice the speed and wearing qualities of any other machine. Wire of all kinds at closest prices. Write for our new illustrated catalogue, free on request.

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On hand upward of 500 HEAD.

Our late importations included the Principal Prize Winners at the Great Shows of France.

At the recent INTERNATIONAL LIVE-STOCK EXPOSITION at Chicago, the Oaklawn Percherons won every Championship, First Prize, and Gold Medal and every Second Prize in classes.

Notwithstanding the superior quality of our horses and the amply fair and certain terms of our breeding guaranty, backed by our well-known responsibility, it is a fact that our prices are lower than can be obtained elsewhere in America. Catalogue sent on application.

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IMP. CLYDESDALES AND AYRSHIRES.

The three imp. stallions, Copyright, Baron Frederick and Baron Laing, and the Canadian-bred stallion, Laurentain. Ayrshires all ages; and poultry, utility breeds. Eggs for sale.

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4 Imp. Clydesdale Stallions

31 Imported Shorthorn Cows and Heifers. 7 Canadian-bred Cows and Heifers. 3 Imported Shorthorn Bulls. 5 Canadian-bred Bulls.

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CLYDE & SHIRE HORSES, SHORTHORN CATTLE and LEICESTER SHEEP.

One Clyde stallion, rising 3 years old, sired by Lewis Gordon; one stallion colt (Clyde), sired by the unbeaten King of the Clydes, g. dam an imp. prize-winning mare; also four choice Shorthorn bulls, reds and roan, from 10 to 15 months old. Write for prices or come and see us. My motto: "The best is none too good." J. M. GARDHOUSE, "Rosedale Stock Farm," Highfield P. O. MALTON, G. T. R.; WESTON, C. P. R. Rosedale Farm is thirteen miles west of Toronto.

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Young stock of both sexes for sale. Imported Prince Louis = 32082 = heads the herd. Write for prices or come and see them. John Gardhouse, Highfield P. O. Weston, G. T. R. and C. P. R.

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Our latest importation of 4 stallions is the best we ever made, weighing from 2,000 to 2,200 lbs., and of the well-known Darley and Prince of Wales breeding. We have a number of pure-bred mares; also some young Canadian-bred stallions and fillies. Write for prices.

Railway Stations: Oshawa, G. T. R.; Myrtle, C. P. R. Long-distance telephone at Columbus.

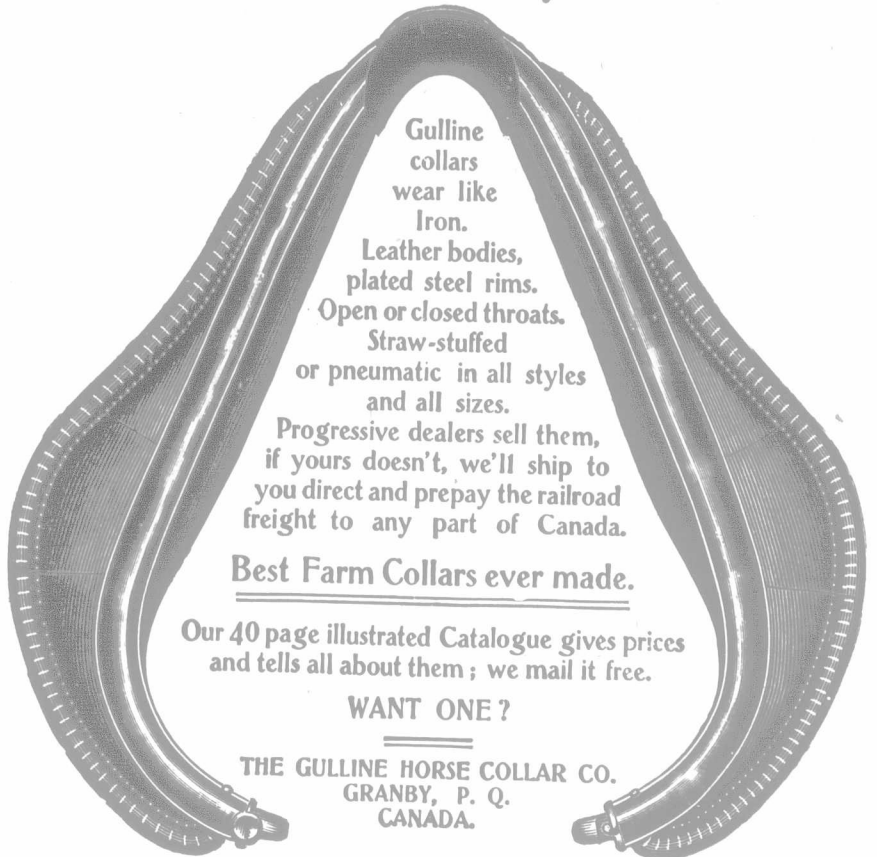
IMPORTED CLYDESDALES

For Sale—4 Imported Stallions and 1 Filly.

Ratepayer, bay, rising 6 years, the largest horse in Canada, sire Prince of Carruchan. Coyton, black, rising 4, will make a horse 2,200 pounds, sire Ethiopia. Baltevaio Fashion, roan, rising 3, will make a horse 2,000 pounds or over, sire Prince of Fashion. Choice Gift, brown, rising 3, hind pasterns only white, will be a very large horse, sire Good Gift. Jessamine, brown, rising 3, a very fine mare, sire Gold Mine. Prices right, and must be sold. Apply to

NEIL SMITH, BRAMPTON, ONT.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.



Gulline collars wear like Iron. Leather bodies, plated steel rims. Open or closed throats. Straw-stuffed or pneumatic in all styles and all sizes. Progressive dealers sell them, if yours doesn't, we'll ship to you direct and prepay the railroad freight to any part of Canada.

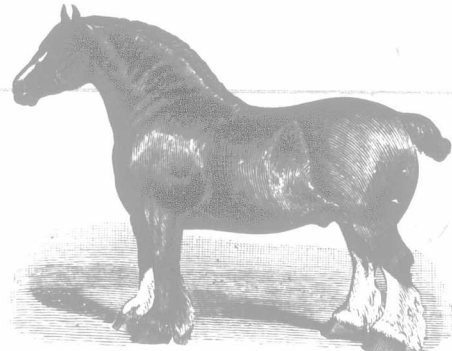
Best Farm Collars ever made.

Our 40 page illustrated Catalogue gives prices and tells all about them; we mail it free.

WANT ONE?

THE GULLINE HORSE COLLAR CO. GRANBY, P. Q. CANADA.

Imported Stallions for Sale.



THIRD consignment, per S.S. "Orithia" from Glasgow, due to arrive end of January, 1902.

DALGETY BROS., DUNDEE, SCOTLAND, the largest importers and exporters of horses in Canada, have on hand just now a choice selection of above, including several prizewinners. Our third consignment includes some extra good horses, being sired by such noted sires as Mains of Airies, King's Knight, Royal Stamp, etc., etc. They combine size, quality and action, and all good colors; age, from two years upwards; and will be for sale at

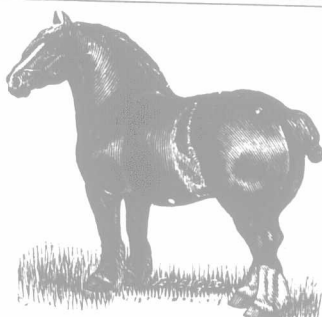
BLACK HORSE HOTEL, FRONT STREET, TORONTO, ONT.,

on Tuesday, 4th February, for one week; after that at our own stables, London, Ont. Any one in need of a good stallion should not miss seeing our stock before buying. Prices right. Apply to

JAMES DALGETY, 229 HYMAN STREET, LONDON, ONTARIO.

JOHN BRIGHT, MYRTLE, ONTARIO.

BREEDER OF Clydesdale Horses AND SHORTHORN CATTLE.....



SHORTHORNS.

For Sale: 16 head of bulls and bull calves; also a large and choice lot of cows and heifers of all ages.

CLYDESDALES.

11 registered mares, 6 of which are in foal to such notables as Royal Cairnton, Prince Patrick and Lord Lyndock; also 2 young stallions.

Myrtle P. O. and R. R. Stn., G. T. R. and C. P. R.

MAPLEWOOD HACKNEYS.

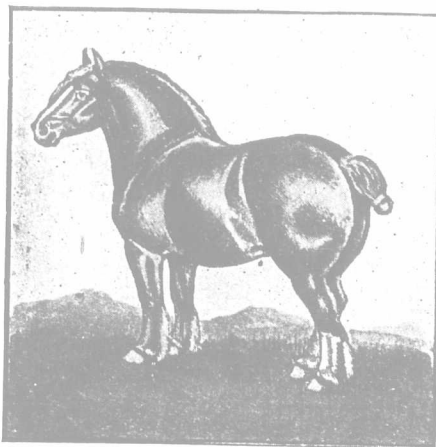
PROPERTY OF FREDERICK C. STEVENS, ATTICA, N. Y.,

Have won more challenge cups, more championships, more first prizes, and more value in prizes during the past seven years than all the other Hackneys of America combined.

THIS IS THE PLACE TO BUY FOUNDATION STOCK.

Stallions of all ages, mares in foal, young mares and fillies. The best three carriage horse sires in America at the head of this stud: Langton Performer, Clifton 2nd, and Fandango.

SEND FOR CATALOGUE TO E. T. GAY, MANAGER, ATTICA, N. Y.



LATELY IMPORTED A FRESH LOT OF

Clydesdale Stallions,

Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited.

Prices consistent with quality.

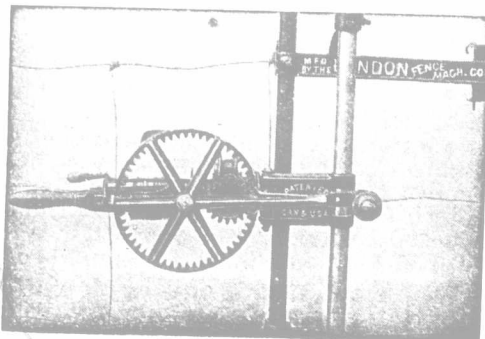
ROBERT GRAHAM, Ringwood P. O., Ont.

Stouffville Station, G. T. R., and telegraph office.

Cotswold Breeders Meet.

At the recent meeting of the American Cotswold Association the Treasurer reported a balance on hand of \$742.06. Officers were elected as follows: President, David McCrae, Guelph, Ont.; Vice-President, D. B. Watt, Xenia, O.; Secretaries and Treasurers, George Harding & Son, Waukesha, Wis. Directors—D. McCrae, D. B. Watt, S. Bennington, Jr., Volga, Ia.; Geo. Harding and F. W. Harding,

Auditing Committee—W. W. Birch, Chicago, and one other to be elected by Board of Directors. A resolution was adopted to the effect that for 1902 special premiums at various State and Provincial fairs can only be competed for by sheep recorded in the American Cotswold Record and owned in the State or Province where such prizes are offered. D. McCrae, D. B. Watt and F. W. Harding were elected delegates to make recommendation for director of live stock at St. Louis World's Fair, 1903, and confer on matters pertaining to Cotswold sheep.



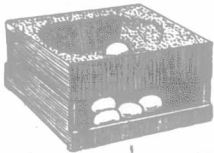
"VIGILANT" NEST

SLIDING—ADJUSTABLE
(Patented Can. & U.S.)

The only nest in the World which positively prevents hens from eating their eggs.

Simple—Effective—Durable
No springs—Eggs cannot break.

The inclined nest gathers them safely in lower section. Prevents fleas, or parasites, etc. Everlasting, never failing, comfortable. Thousands now in use. Ask your dealer for it or write to L.P. Morin, Inventor, Mfr., 12 Antoine St., St. Hyacinthe, Que. Price 45c. each. AGENTS WANTED.



Clydesdales

Two stallions for sale, rising two and three years old. Correspondence solicited.

Josiah Hallman & Sons, Washington, Ont.

HIGH PARK STOCK FARM.

GALLOWAYS of the choicest breeding and most fashionable strains. Inspection or correspondence invited. A. M. & ROBERT SHAW, P. O. Box 294, Brantford, Ont.

High-class Herefords

We have for sale the following choice young stock, which have been bred from imported and American sires. Intending buyers will do well to inspect the following: 18 young bulls, 2 aged bulls, 20 young heifers. Correspondence invited.

A. S. HUNTER, DURHAM, ONT.

HEREFORDS.

Seven bulls, from 12 months to 2 years old, by Clarion and Clarion 2nd, and out of dams from imp. stock. Also a few choice heifers. Write for particulars. R. J. MACKIE, Oshawa P. O. and Station.

The Sunnyside Herefords.

Imp. Sunny Slope Tom 1st No. 8085 at head of herd. The blood of Lord Wilton, Garfield, Grove 3rd and Beau Real represented. Special offering: 5 bulls, from 8 to 14 mos.; 10 cows and heifers, from 10 mos. to 3 yrs. old. Inspection and correspondence solicited. O'NEIL BROS., Southgate, Ont. Lucan station, G. T. R. Ilderton station, L., H. & B.



90 HEAD

High-quality, Early-maturing

Herefords

Prizewinners, Young bulls, cows, heifers.

The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

H. D. SMITH, COMPTON, QUE.

6-POLLED ANGUS BULLS—6

Six young bulls, from 6 to 16 months old; prizewinners among them. All for sale. Alex. McKinnon, Hillsburg P. O. and Station.

Mercer's Shorthorns for Sale

BULLS and heifers from such families as Matchless, Claret, Missies, Stamfords, Fashions, Buttercups, Isabelas, Princesses, Beatrices, and other choice families. Herd headed by Village Squire =2498= (he by Abbotford), assisted by a son of old Royal Sailor (imp.). Cows and heifers in calf. Four nice young bulls. Our herd stands at the head of the show-ring in this northern country. Over 40 head now in the herd. Intending visitors drop a card and they will be met at the C. P. R. station, Markdale, one mile from farm. Write for prices. No business, no harm. Our motto: "The best is none too good."

THOS. MERCER, MARKDALE, ONT.



A QUICK, SHARP CUT

hurts much less than a bruise, crush or tear. Done with the **DEHORNING KEYSTONE KNIFE**

is the safest, quick, sharp cut. Cuts from four sides at once. Cannot crush, bruise or tear. Most humane method of dehorning known. Took highest award World's Fair. Write for free circulars before buying.

Owned and Manufactured by R. H. McKEHNA, V. S., Pictou, Ont.

IMPORTED JERSEY BULL

FOR SALE:

The prizewinning sire, imported

DISTINCTION'S GOLDEN

Is docile and sound. His get have won the family prizes for three years at Toronto Exhibition.

APPLY

ROBERT DAVIES,

THORNCLIFFE STOCK FARM, TODMORDEN, or 31 Toronto St., Toronto.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

The date for the Toronto Industrial Exhibition has been fixed to open Saturday, Aug. 30th, the formal opening to be on Monday, Sept. 1st (Labor Day), and to close Saturday, Sept. 13th. A despatch from Ottawa states that it has been decided to hold the exhibition there the week following that at Toronto.

Wm. Shier, Marlette, Mich.: "Inclosed find P. O. order for \$1, being renewal for 'Advocate' for 1902. We could not farm successfully even in Michigan without the 'Farmer's Advocate.' It gives us the fullest reports of the live-stock industry not only of the American continent, but also that of Europe, which largely controls our prices. Your reports of the live-stock fairs are fuller and more reliable than any that comes to our hand. Wishing you remunerative success."

Attention is directed to the advertisement of Mr. R. J. Mackie, of Oshawa, who is offering for immediate sale seven Hereford bulls, ranging in age from one year to two years, all fit for service. Mr. Mackie's herd of pure-bred Herefords has been established thirty years, and was founded on imported animals, and throughout all these years the herd has been kept up to a high standard. The animals offered for sale here are a nice even lot, showing splendid conformation, coupled with grand quality. He is also offering a few extra good heifers.

Henry Arkell & Son, Teeswater, Ont.: "We consider the 'Farmer's Advocate' the best agricultural paper published, and would not be without it for twice what we now pay for it. Our advertisement has paid us well; many of our customers have mentioned seeing it in the paper. We have done a good trade in Oxfords in 1901, selling in all 110 head, most of them going to our retail trade. Our last shipment was 10 shearing ewes, bred to our imported ram, Earl of Fairford 2nd, and two ram lambs, to Windsor, Nova Scotia. We hope in 1902 to hear from all of our old customers and many new ones. Wishing the 'Advocate' every success."

Jerseys for Sale: From high-testing stock—registered A. J. C. C. Cow 3 years old, due to calve May 11th, \$60. Bull 9 months old, \$40. Heifer 5 months old, \$25. Or to clear out lot now, will take \$115.

R. DODDS, P. O. Box 606, Guelph, Ont.

FOR SALE:

Three young St. Lambert bulls; best breeding, color and dairy form. T. PORTER, MOUNT DENNIS, ONT.

GREEN GROVE HERD OF SHORTHORNS.

This herd is headed by the famous show bull, Spicy Robin =28259= (bred by J. & W. B. Watt), grandson of Imp. Royal Sailor, and of the noted English family, and contains such noted tribes as Nonpareils, Crimson Fuchsias, Mysias, Butterflys, and Languishes. Short-horns of both sexes. Also a choice litter of Yorkshires, about 4 mos. old, for sale. Address: George D. Fletcher, Binkham P. O., Ont. Erin Shipping Station, C.P.R.

SHORTHORNS, SHROPSHIRE, COTSWOLDS.

We are now offering a number of heifers and heifer calves; a few bull calves; a number of cows; all bred in the purple and as good as the best. Also Shropshire and Cotswold sheep. JOSEPH BELL ESTATE, Bradford P. O. & Sta.

FOR SALE:

SHORTHORNS: 7 young bulls, from 8 to 10 mos. old, sired by Let's Lad and out of deep-milking cows. H. E. HIND, Hagersville P. O. and Station, G. T. R. and M. C. R.

BELLEVUE SHORTHORNS.

Both sexes. IMPORTED AND HOME BRED. All ages. Prizewinners at home and abroad.

EDWIN BATTYE,

GORE BAY P. O. AND PORT.

MANITOULIN ISLAND.

10 SHORTHORN BULLS

From 6 to 18 months old. Nearly all from imp. dams, and sired by the imp. Golden Drop bull, Royal Prince. Catalogue upon application.

John Miller & Sons, Brougham P. O. CLAREMONT STATION, C. P. R. ONT.

J. & W. B. WATT,

SALEM, ONTARIO

(POST AND TELEGRAPH OFFICE),

BRKEDERS OF—

Shorthorn Cattle, Clydesdale Horses, Leicester and Oxford Sheep, and Berkshire Pigs.

Our herd contains such families as Matchless, English Ladies, Mildreds, Village Buds, Missies, Stamfords, Claret, and Marthas. Royal Wonder =3482= junior champion of 1901, now heads the herd. A choice lot of young bulls and a few females for sale. We offer our whole flock of Leicesters for sale—thirty-five ewes and ewe lambs and fifteen rams.

Farms 2 miles from Elora Stn., G. T. R. and C. P. R., 12 miles north of Guelph.

STRONGER THAN STEEL

This famous fence is woven of best steel made more durable by heavy galvanizing. Every rod is guaranteed. When it is put up—tight—your fence troubles are ended for all time.

ELLWOOD STEEL WIRE FENCE

stands heat and cold, storms, bulls, boys, horses, sheep and cattle. Made in six heights, from 18 inch to 58 inch. Styles for all purposes. Best and cheapest diamond mesh wire fence. Get prices. Sold in every town. If not handled by your dealer, write to AMERICAN STEEL & WIRE CO., Chicago, New York, San Francisco, Denver.

45 Head Imported and Home-bred Scotch Shorthorns of the best families and of the greatest merit

WILL BE SOLD BY AUCTION, ON

Wednesday, the 5th day of February, 1902,

BY

Robert Miller, Stouffville, Ontario.

Sale will consist of absolutely straight cattle of the most valuable ages and in the most valuable condition, of the following families: Cruickshank Village Girls, Village Blossoms, Lavenders, Brawith Buds, Broadhooks, Butterflys, Duchesses of Gloster, Floras, Nonpareils, and Secrets; Marr Missies, Claras, Princesses Royal, and Floras; Campbell Clarets and Minas.

THERE WILL BE NO RESERVE. ASK FOR CATALOGUE.

R. W. BARCLAY, WEST LIBERTY, IOWA, AUCTIONEER.

Stouffville is 27 miles from Toronto. Farm 1 1/4 miles from station.

Annual meeting of Shorthorn Association will be held in Toronto day before sale.

LESS LABOR AND MORE MONEY ON THE FARM.

BUY A LOW-DOWN, THICK-FLUSHED

Hillhurst Shorthorn Bull,

Scotch-topped, from Cumberland, Gloucestershire, or Canadian dairy strain, and raise DEEP-MILKING, BIG-FRAMED COWS AND BABY BEEF in nature's way. Many cows that do not pay board at the pail will give a handsome return in growing beef. Four handsome young bulls, seven to nine months old, reds and roans, by the celebrated imported sires, "Joy of Morning" and "Scotch Hero," for sale at moderate prices. Low freights.

M. H. COCHRANE, COMPTON CO., P. Q.,

G. T. R., 117 MILES EAST OF MONTREAL. HILLHURST STATION.

FOR SALE:

Nine Shorthorn bulls, from 8 to 15 months old. Also pure-bred Clydesdale stallion, bred from imported stock, rising 2 yrs.; brown in color. McDONALD BROS., WOODSTOCK, ONT.

SHORTHORNS

FOR SALE: Seven choice young bulls, from 9 to 12 months old. Also a few choice heifers, in calf to the grandly bred Marr bull, Spicy Marquis (imp.). JAS. GIBB, Brookside, Ont.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Prime Minister at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON,

DENFIELD, ONT.

Bonnie Burn Stock Farm.

40 rods north of Stouffville Station, Ont., offers Shorthorn bulls and heifers with calf. Shropshire ewes with lamb, and Berkshire pigs. All at farmers' prices. Inspection invited. D. H. RUSSELL, Stouffville, Ontario.

"ORCHARD HILL" SHORTHORNS.

Herd comprises representatives of best Scotch-bred families, with Lord Lavender at head. Young animals of both sexes for sale.

ARTHUR JOHNSTON, Vandeleur, Ont.

LAKE VIEW STOCK FARM.

SCOTCH SHORTHORNS, both sexes, all ages. As good as the best.

Meaford Station, G. T. R. North. JAMES BOWES, Strathairn P. O.

Shorthorns, Yorkshires and Berkshires

For immediate sale, 2 bulls 10 months old, 1 bull 18 months old; bred right and built right. Also pigs of both breeds, both sexes and different ages. C. & J. CARRUTHERS, Cobourg P. O. & Stn.

SHORTHORN BULLS.

Scotch-bred and rare good ones. Also females all ages. Write for particulars, or, better, come and see them. DAVID MILNE & SON, Huron Co., Ont. Ethel, P. O. Ethel Station, G. T. R., half mile from farm.

IN WRITING

PLEASE MENTION FARMER'S ADVOCATE.

SHORTHORNS: We are offering 3 extra choice yearling bulls, all from imported sires, straight Cruickshank, with Lavendar and Miss Ramsden dams. **THOS. ALLEN & BROS.,** om Oshawa, Ont.

Shorthorns, Berkshires, Leicesters
Am offering at present the grand stock boar, Crown Prince; also some young ones. om
ISRAEL GROFF, ALMA, ONTARIO.

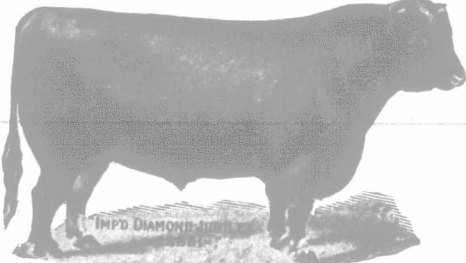
Shorthorns and Leicesters.
Herd Established 1855.
A number of young bulls, cows and heifers for sale. Imported Christopher = 28859 = heads the herd of large cows of grand milking qualities. Also a number of Leicesters of both sexes, from imported foundation.
JAMES DOUGLAS,
om CALEDONIA, ONT.

JOHN DRYDEN,
BROOKLIN, ONTARIO.
BREEDER OF
CRUICKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP.

Choice Young Bulls and Ram Lambs for sale. Write for prices. om

HAWTHORN HERD
of deep-milking Shorthorns for sale. Six young bulls of first-class quality and breeding and from 11 dairy cows. **WM. GRAINGER & SON,** om Londesboro, Ont.

SHORTHORNS (imported)
One bull, 2 years old, and 1 imported cow, and 7 home-bred heifers.
THOS. RUSSELL, EXETER, ONT.



T. DOUGLAS & SONS, STRATHROY, ONT.,
BREEDERS OF
Scotch Shorthorns.

100 HEAD TO SELECT FROM.
Herd headed by Imp. Diamond Jubilee = 28861 = and Double Gold = 37852 = . February offering: 14 grand young bulls and cows and heifers of all ages. Farm 1 mile north of town. om

GEO. RAIKES, BARRIE, ONT.,
BREEDER OF
SHORTHORNS & SHROPSHIRE SHEEP.
YOUNG STOCK FOR SALE.

SHORTHORNS
Scotch and Scotch-topped. War Eagle = 27609 = at head of herd. Young bulls, cows and heifers for sale. Railway station: Coldwater, Midland branch, G. T. R. Write for prices. **S. Dunlap, Eady P.O., Ont.** om

Agents Wanted
for the New Pictorial Stock Doctor and Live Stock Cyclopedia, revised to 1901 with the assistance of the Professors of the Ontario Agricultural College, Guelph. The finest illustrated, cheapest and best book of its kind ever published. Large wages to agents. A full-page announcement of this book appeared in the ADVOCATE of the issue of June 5th. Particulars mailed free. Address **WORLD PUBLISHING CO., Guelph, Ont.**

To Rid Stock of Lice
AND ALL SKIN DISEASES,
Also to Keep Poultry Healthy
USE
WEST'S FLUID

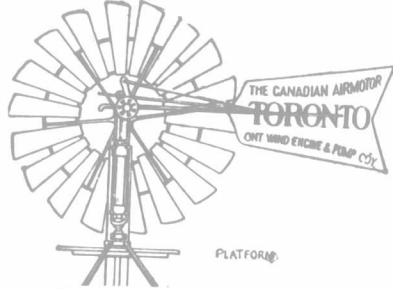
Which is also a SURE CURE OF CONTAGIOUS ABORTION. STANDARD SHEEP DIP IS CHEAP AND GOOD. Pedigree forms free to customers. Manufacturers:
The West Chemical Co'y,
om TORONTO, ONT.
Agt. for Manitoba: **W. R. ROWAN,**
132 Princess St., Winnipeg.

SCOTCH SHORTHORNS.
We are now offering a few young bulls, from 6 to 11 months; also a few heifers, from 6 months to 2 years; all showing No. 1 quality.
W. G. HOWDEN, om COLUMBUS P. O.

SHORTHORNS: We are offering for sale 8 years old, by Mungo 2nd and Scottish Bard. Also a few cows bred to Baron's Heir. om
ROBT. GLEN, Owen Sound, Ontario.

SHORTHORNS.
One bull, 1 year old; two bulls, 7 months old; a few heifers of choice breeding and superior quality. om
AMOS SMITH,
Listowel station, Trowbridge P. O., Ont.

WINDMILLS Spring Grove Stock Farm.



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Canadian Airmotor

A neat ornament on YOUR BARN.

More than this: It will "hustle" for you all the year around. Ask your neighbor who has one
ONT. WIND ENGINE & PUMP CO.,
om LIMITED. TORONTO, ONT.

Manitoba Agents: **BALFOUR IMPLEMENT COMPANY, Winnipeg, Man.**

W. G. PETTIT & SON,
FREEMAN P. O., ONT.,
IMPORTERS AND BREEDERS OF

Scotch Shorthorns and Shropshire Sheep,

Are offering 10 Imp. bulls from 10 months to 2 years old; 10 home-bred bulls from Imp. stock, 10 to 15 months old; 40 Imp. cows and heifers, all ages. Home-bred cows and heifers all ages. Also a grand lot of ram and ewe lambs and yearling ewes for sale. om

Burlington Jct. Stn. Tele. & Phone, G. T. R.

SHORTHORN BULLS.
RARE GOOD BULLS. SCOTCH-BRED BULLS.
Write for bull catalogue free.

H. SMITH, Hay P. O., Huron Co., Ont.
Exeter Station on G. T. R., half a mile from farm om

Hillside Shorthorns and Shropshires.
Bulls, from 8 to 18 months old; heifers, various ages, of true type and fashionable breeding; also 25 ram lambs and 15 ewe lambs, from Imp. sire. Will quote prices right for quick sales. om
L. Barnett, Greenbank P. O., Ont.; Uxbridge Stn., G. T. R.

Charles Rankin
WYEBRIDGE, ONT.,
IMPORTER AND BREEDER OF
SHORTHORNS, OXFORD DOWNS AND BERKSHIRE PIGS.
Young stock always on hand. om

Shorthorns and Berkshires
Four young bulls, 6 to 12 months old. Pigs, 2 to 6 months old. Pairs supplied not akin. om
MAC CAMPBELL, NORTHWOOD, ONT.

Queenston Heights Shorthorns
SCOTCH AND SCOTCH TOPPED.

Headed by the Sittyton Secret bull, Imp. Derby, assisted by Lord Montalis = 39279 =, sired by Hon. John Dryden's Dutch-bred Collynie Archer. Young stock of both sexes for sale. om

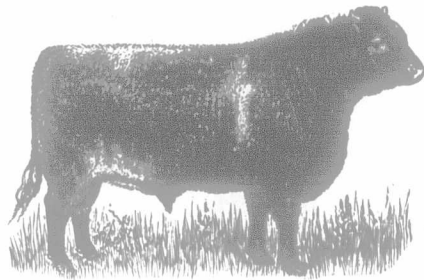
HUDSON USHER, QUEENSTON, ONTARIO.
Farm 3 miles north of Niagara Falls.

Ridgedale Farm Holstein-Friesians for Sale.
2 yearling bulls; also bull and heifer calves; all of choice breeding. Prices always reasonable. Write, or come and see them. **R. W. WALKER, Utica P. O.** Shipping stations: Port Perry, G. T. R.; Myrtle, C.P.R. om

SUCCESS WITH HOLSTEINS
depends on starting right. Brookside has furnished foundation stock for some of the best herds in the country. We have 250 head, and if you want to establish or strengthen a herd, can supply you with animals of the right sort. We have 50 young bulls on hand, and females bred to the best sires living. Let us know just what you want. Catalogue of bulls now ready. We also have six fine thoroughbred Jersey Red heifers, 6 months old, for sale, \$9 to \$10 each.
HENRY STEVENS & SONS,
LACONA, OSWEGO CO., N. Y. om

Shorthorn Cattle
AND
Lincoln Sheep.

HERD prize and sweep-stake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wanderer's Last, last of the



get of the great sire, Wanderer, of the Cruickshank Braith Bud tribe. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply om

T. E. Robson,
ILDERTON, ONT.

ARTHUR JOHNSTON, GREENWOOD, ONTARIO.

BREEDER OF POST OFFICE AND TELEGRAPH OFFICE. IMPORTER OF

SHORTHORNS ONLY.

FOR SALE: 9 imported bulls and bull calves. 11 home-bred bulls and bull calves, from imported cows and by imported bulls. 17 home-bred bull calves. A large and excellent lot of young cows and heifers of various ages. om

RAILWAY STATIONS: PICKERING, G. T. R., 22 MILES EAST OF TORONTO. CLAREMONT, C. P. R., 28 MILES EAST OF TORONTO.

THEY WANT

Dr. Hess' Stock Food in England

Read what the great English importer, Mr. M. G. Rich, Bath Bridge, Tetsbury, Gloucestershire, Eng., and owner of 1,000 acres of land, writes:

BATH BRIDGE, TETSBURY, GLOUCESTERSHIRE, ENG., Aug. 8th, 1901.

DR. HESS & CLARK, Ashland, O.:
GENTLEMEN.—Where can I get Dr. Hess' Stock Food in England? In my travels in America I find it in many stables, and highly recommended by my friends.

P. S.—I farm nearly 1,000 acres. Yours respectfully, **M. G. RICH.**

DR. HESS' STOCK FOOD IS NOT A STIMULANT,
but a tonic. It expels worms, cleanses the blood and system generally; calls into healthy action very organ of the animal body; allows no food to pass off undigested. It pays to feed it as a health promoter and as a flesh and milk producer.

EVERY PACKAGE GUARANTEED.

7-lb. sack.....\$.65	25-lb. sack.....\$2.00
12-lb. sack.....1.00	50-lb. sack.....3.75
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If your dealer can't supply you, send your order to

THE GREIG MFG. CO., W. R. ROWAN, MGR. Winnipeg, Manitoba.
P. O. Box 603.

FREE.—Dr. Hess' new scientific veterinary work, giving the symptoms and latest treatment on stock diseases, will be mailed you for the asking. Address—Dr. Hess & Clark, Ashland, Ohio.

Scotch Shorthorns

BREEDING FEMALES ALL IMPORTED.

Imp. Golden Drop Victor our present stock bull. Eleven young bulls and some young cows for sale at reasonable prices.

H. CARGILL & SON,

Cargill Station, G. T. R. CATALOGUE FREE. om Cargill, Ontario.

Rapids Farm Ayrshires.

REINFORCED BY RECENT IMPORTATIONS of 2 bulls and 20 cows, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows last year. Imported Douglasdale of Dam of Aber, champion at the Pan-American, heads the herd. Representatives of this herd won the first herd prize at the exhibitions at— om



Toronto, London and Ottawa in 1900, and at the Pan-American in 1901.

Come and see or write for prices.

Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager

for W. Watson Ogilvie, Lachine Rapids, Quebec.

4 HOLSTEIN BULLS 4
FOR SALE: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aggie, and Tritonia Prince, and out of imported females that have proven their worth at the stall. **THOS. B. CARLAW & SON,** om Warkworth.

Maple Glen Stock Farm.
EXHIBITION OFFERING: Two bull calves under 1 year. Also a Sylva and an Abbekirk bull calf, with spring and fall heifer calves of Sylva breeding, bred from winners and ones that will make winners. Prices according to quality. om

C. J. GILROY & SON,
Brookville, on C.P.R. and G.T.R. Glen Buell, Ont.

BRAMPTON JERSEY HERD
Offers: 3 St. Lambert bulls from 6 to 14 months old, out of high testing cows; 1 yearling and 5 bull calves, sired by Brampton's Monarch (Imp.). Four young bulls sired by him won 1st, 2nd and 3rd prizes under one year, and 1st prize under six months, also 1st, 2nd and 3rd at London and Ottawa, in 1901. The best is none too good. These young bulls have never been beaten. Get one to head your herd. om

B. H. BULL & SON, BRAMPTON, ONT.
G. T. R. and C. P. R. Stations.

Are Quick To See

Good Doctors are Quick to See and Appreciate Real Merit in New Medicines.

Stuart's Dyspepsia Tablets are a discovery of great value to the medical profession and the public. They are an unfailing specific in all cases of dyspepsia and disordered digestion. Almost everybody's digestion is disordered more or less, and the commonest thing they do



for it is to take some one of the many so-called blood purifiers, which in many cases are merely strong cathartics. Such things are not needed. If the organs are in a clogged condition, they need only a little help and they will right themselves. Cathartics irritate the sensitive linings of the stomach and bowels and often do more harm than good.

Purging is not what is needed. The thing to do is to put the food in condition to be readily digested and assimilated. Stuart's Dyspepsia Tablets do this perfectly. They partly digest what is eaten and give the stomach just the help it needs. They stimulate the secretion and excretion of the digestive fluids and relieve the congested condition of the glands and membranes. They put the whole digestive system in condition to do its work. When that is done you need take no more tablets, unless you eat what does not agree with you. Then take one or two tablets—give them needed help—and you will have no trouble.

It's a common-sense medicine and a common-sense treatment and it will cure every time. Not only cure the disease, but cure the cause. Goes about it in a perfectly sensible and scientific way.

We have testimonials enough to fill a book, but we don't publish many of them. However—Mrs. E. M. Faith, of Byrd's Creek, Wis., says: "I have taken all the Tablets I got of you, and they have done their work well in my case, for I feel like a different person altogether. I don't doubt if I had not got them I should have been at rest by this time."

H. E. Willard, Onslow, Ia., says: "Mr. White, of Canton, was telling me of your Dyspepsia Tablets curing him of dyspepsia, from which he had suffered for eight years. As I am a sufferer myself, I wish you to send me a package by return mail."

Phil Brooks, Detroit, Mich., says: "Your dyspepsia cure has worked wonders in my case. I suffered for years from dyspepsia, but am now entirely cured and enjoy life as I never have before. I gladly recommend them."

It will cost 50c. to find out just how much Stuart's Dyspepsia Tablets will help you. Try them—that's the best way to decide. All druggists sell them. A little book on stomach diseases will be mailed free by addressing F. A. Stuart Co., Marshall, Mich.—Adv. om

SHREDDED WHEAT BISCUIT

The doctors prescribe it and take their own medicine.

"I am prescribing Shredded Whole Wheat Biscuit, as well as using them myself."

ALFRED K. HILLS, M.D., Editor of New York Medical Times.

THE SHREDDED WHEAT CO.,

61 Front Street East, TORONTO.

Shredded Whole Wheat Biscuit For Sale by all Grocers. om

PLEASE MENTION THE FARMER'S ADVOCATE

GOSSIP.

JOHN BRIGHT'S SHORTHORNS AND CLYDESDALES.

About 1½ miles south of Myrtle station, on the G. T. and C. P. Railroads, in the County of Ontario, lies the well-appointed farm of Mr. John Bright, containing 260 acres of choicest agricultural land, the home of one of his large and choice herds of Shorthorn cattle, while also in the commodious stables can be seen what is probably the best collection of registered Canadian Clydesdales to be found together in the Dominion. This grand aggregation of Clydesdales is made up of 11 registered mares and two stallions, the mares being sired by such noted horses as Sir Erskine (Imp.) 2119, McMaster (Imp.) 361, Bakerfield (Imp.) 497, Young Chancellor (Imp.) 171, Gallaway (Imp.) 930, Blacksmith (Imp.) 1042, Sir Arthur (Imp.) 1371, Pride of Perth (Imp.) 282, General Gordon 2662, Erskine's Pride (Imp.) 1332, Eastfield's Laddie (Imp.) 1127; and out of dams such as the following: Countess of Beath (Imp.) 2671, Lady Jane (Imp.) 1387, Daisy (Imp.) 977; etc. Six of these mares are now in foal to Imp. Prince Patrick 6773, the champion prize stallion at Chicago in 1893; Lord Lyndock (Imp.) 4530, who won first and championship at Chicago in 1883, and first at same place in 1888; and that great horse, Royal Cairnton (Imp.) 2730, winner of more prizes, age considered, than any other horse living, never having to take second place in his class. These mares and fillies are an ideal lot, showing size, quality, conformation, bone, feet and action all harmoniously blended, which, together with their choice breeding, makes them very desirable animals from which to breed draft horses of the best pattern. The stallion, The Royal Arch, is rising four in July, a bright bay, will weigh 1,900 in good condition. Stands up well in front, with fine arched neck, strong back and loins, big good feet and ankles, nice flat bone, well feathered with silky hair. He was sired by Erskine's Pride (Imp.) 1332 (4987), a prizewinner in Toronto two years in succession. The two-year-old is Erskine's Heir 3114, sired by Sir Erskine 2119; dam Polly Minty 16, by Young Chancellor 171. He is a chestnut, a big, rangy colt, that bids fair to make a horse considerably over a ton. The herd of Shorthorns now numbers something over 50 head, and was founded ten years ago, on some grandly-bred representatives of the Duchess, Fairfax, Princess, Flattery and Lavinia families, on which have been used such noted imported Scotch-bred bulls as Baron Aberdeen 1215, Oxford 2725, Lord Roseberry 2714, Hospodar 2706, and Indian Agent 16999, son of the great Imp. Indian Chief. The present stock sire is the Kinellar Rosebud bred bull, Bonnie Lad 25927, by Imp. Blue Ribbon 17095; dam Ballad Girl 27054, by Imp. Sittytton Stamp 18963. He is a solid red, a deep, lengthy, massive fellow, weighing 2,500 pounds, one of the low-down, fleshy sort, very evenly built, that is proving himself a sire of more than ordinary merit, stamping his calves with his own desirable conformation. Among the many excellent dams are the cows: Lady May 2nd, by Royal Duke 14374; dam Lady May, by Imp. Hospodar. Mayflower Maid, by Imp. Vensgarth; dam Mayflower, by Waxwork 3995. Ionia Queen, by Indian Agent; dam Lizzie Fairfax, by Imp. Oxford. Nelly Duchess, by Imp. Lord Roseberry; dam Lady Duchess, by Imp. Baron Aberdeen. Speedy, by Imp. Oxford; dam Speedvale Minna, by Harpington Gem 6502. Kate Logan 3rd, by Indian Agent; dam by Imp. Lord Roseberry. Such is the breeding of a few of the animals of this splendid herd, the major part of the herd being sired by the stock bulls mentioned above. Almost without an exception, these animals are of the low-down, fleshy, up-to-date sort, and the many young heifers and bulls in the herd, from their grand conformation, coupled with their rich breeding, make an aggregation that are a pleasure indeed to look upon, and when it is known that nearly every animal in the herd is registered in the American Herdbook, it leaves little to be desired. Mr. Bright reports sales exceptionally good, nearly every mail bringing orders and letters of enquiry from nearly every part of the continent.

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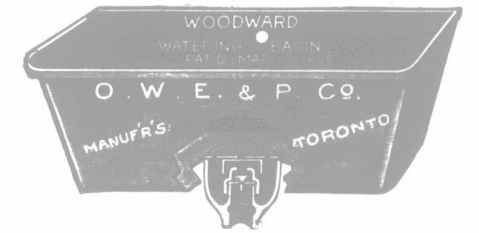
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EIGHT REASONS FOR ADOPTING THE Woodward Water Basin.

7th.—Animals cannot drink to excess. This is rendered impossible by the arrangement of the basin. When empty, the water flows in very slowly. Drinking in excess retards milk-making.

8th.—Next issue will have it. om **Ont. Wind Engine & Pump Co., Ltd., TORONTO, ONT.**

AYRSHIRES.

I offer four choice August (1901) bull calves, two yearling heifers due to calve next August to imported bull, and a pair of March and April heifer calves. All bred from imported stock of choice milking strains. **W. W. BALLANTYNE, Stratford, Ontario.** "Neidpath Farm" adjoins city, main line G.T.R.

THE ONTARIO VETERINARY COLLEGE (LIMITED), TEMPERANCE ST., TORONTO, CANADA. Affiliated with the University of Toronto.

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Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchinbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars address **JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec.** Farm close to St. Anne Station, Quebec, G.T.R. & C.P.R., 20 miles west of Montreal. om

Ayrshire Bulls from 1½ years to 6 months, from special milking stock, sired by the sweepstakes bull, Cock of the North—9987—, also females all ages. Shropshire sheep. Berkshire pigs, either sex, and B.P. Rocks. For particulars write -om **J. YULL & SONS, Carleton Place, Ontario.**

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Booth and Bates Shorthorns, topped with Cruickshank bulls. Young cows, bulls and heifers always on hand for sale. Eligible for the American Herdbook. Royal and Highland prizewinners included for the last two years. Close on \$400 won in prizes last year and this. -om **WM. BELL,** Ratcheugh Farm, Alnwick, Northumberland, Eng.

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SPLENDID MUTTON, GOOD WOOL, GREAT WEIGHT.

THIS HIGHLY VALUABLE **English Breed of Sheep**

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A choice selection of boars and sows for sale. Inspection invited. All purchases carefully shipped. For particulars, apply to the Manager, **MR. J. HALLAS, Higher Walton, Warrington, England.** Railway stations:—Warrington (Bank Quay) per L. & N. W. Ry.; (Central) per Midland, G. N. or G. C. Rys. Telegrams, "HALLAS Higher-Walton." -om

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IMPORTED COTSWOLDS

We are now offering some choice shearlings of both sexes; also this season's crop of lambs, sired by Imp. Swanwick.

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SIX MILES FROM OSHTAWA STATION, G. T. R.

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Offers Imp. and home-bred Cotswolds of both sexes and all ages, from the champion flock of Canada for the last six years.

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Cotswold Ewes and Ewe Lambs
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Present offering: A choice lot of ram lambs and ewe lambs. Also 50 extra nice yearling ewes.
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Can sell a few choice ewes of different ages, bred to our imported rams, May King 1st and Earl of Fairford 2nd; also 75 good ewe and ram lambs, and an imported two-shear ram. Come and see our flock, or write us for prices, etc.

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Linden Oxford and Shorthorns
Flock composed of selections from the best English flocks and their progeny. None but the best Imp. rams used. Stock for sale.

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Scotch Collie Pups

FOR SALE. BOTH SEXES.
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This season's lambs, both sexes; yearlings, both sexes; breeding ewes, Imp. and from imported stock. Young Shorthorns of both sexes for sale.

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HIGH-CLASS SHROPSHIRE.
A flock of 75, of good type. Two-shear rams, shearing rams, ram lambs, ewe lambs, fine lusty fellows. Flock headed by a fine imported ram. Write for prices. **Abram Kudell, Hespeler P.O., Ont.**
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IMPORTER AND BREEDER OF

Shropshire Sheep.
Ram and ewe lambs for sale. Well covered.
Station One-half Mile from Farm,
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50 REG. SHROPS. 50
FOR SALE:

Shearing and two-shear rams; also stock ram, bred by John Miller & Sons, and this season's crop of lambs ready for the fall trade. Foundation stock bred by Mansell, England. Prices moderate. A card will bring them.
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Imported Chester Whites

Our present offering is both sexes, all ages, bred from prizewinning and imported stock. We claim to have as good as the country produces, of the true bacon type. We guarantee everything just as represented. Write us, a trial will convince. Pairs not akin.

GEO. BENNETT,
CHARING CROSS P. O. AND STATION.
PLEASE MENTION FARMER'S ADVOCATE

GOSSIP.
SMITH & RICHARDSON'S CLYDESDALES.

For the last 25 years the name of Wm. Smith, of Columbus, Ont., has been familiar to Clydesdale men throughout Ontario, on account of the many excellent Clydesdale stallions and mares he has imported from Scotland, the progeny of which has added not a little to the fame of the Province as the banner Province or State on the continent for the production of the typical Clydesdale in all his majestic glory and perfection. Of late years Mr. Smith has had associated with him in this enterprise Mr. F. Richardson, a gentleman of wide experience in the handling and fitting of this particular breed of horses, besides being all his life intimately associated with the care of stallions, he has bought and shipped a great many horses to the Old Country. So with the many years of experience with Clydesdales which both these gentlemen have had, coupled with their keen, intelligent judgment and thorough knowledge of the various strains or families and pedigrees of this breed, it goes without saying that this firm will import nothing but the very best, both individually and in breeding. Their latest importation consisted of four stallions: King's Cross 10070, sired by Sir Everard 5353; dam Lady Wales 9226, by the great Prince of Wales 673. This horse is a dark brown, seven years old, weighs 2,150 pounds and is half-brother to Baron's Pride 9122, whose get won in 1901 the enormous number of 97 prizes. He is a horse of beautiful mould, with a proud, lofty carriage, and lifts every foot clean and square. Last year he stood at £4 a mare and had his book full. Duke of Cornwall, Vol. 24, is a bay with white strip in face, and four white legs, is three years old, stands 17 hands high and is all horse from the ground up, having the best possible feet and legs, on which is built a model Clydesdale body, and can act like a Hackney. He was sired by Duke of Rothsay 9191; dam Young Fanny 5308, by Young Farmer 1880, and traces directly to McGregor and Darnley. Theakston 10655 is another massively-built horse, 17 hands high, a typical Clydesdale, choke-full of quality; he was sired by that world-famed prizewinner, Hollywood 9546; dam Jip 13162, by Duchal 2737. He is smooth to a turn, and a splendid actor. Sir Arthur 10455 is a prizewinner of no mean repute, having a number of medals and prizes to his credit. He is also a very large, well-balanced horse, six years old, weighs 2,200 pounds, and stands over 17 hands high; he is sired by that great horse, Sirdar 4714; dam Ruby of Saphock 10363, by Corsewell 1420. These horses are all closely related to the noted sires, Darnley and Prince of Wales, are possessed of a wealth of large, clean, flat bone, and are all full of proud, lofty, springy action, and, what is of more importance, they have proven their superior worth in the stud, so that purchasers have no risks to run in that regard. This firm is also showing four splendid one-year-old Canadian-bred stallions, sired by the great prizewinners, McQueen and Lawrie's Baron Gordon, and out of winning dams, that are a grand lot, combining size, conformation and quality to a very marked degree, and will make horses that will easily reach the ton mark.

NOTICE.
IMPORTATION OF STALLIONS.

Messrs. Bawden & McDonell, of Exeter, Ont., extensive importers and breeders of Clydesdales, Shires and Hackneys, write that they had landed at Boston, on Jan. 16th, another large shipment of Clydesdale and Shire stallions and three Hackneys, which will have arrived at their barns at Exeter before this time. In this lot are some of the very best that could be bought in Scotland and England, having size, quality and action to suit the most fastidious. They now have over 20 imported stallions to show at their stables, of the very best kind of Clydes, Shires and Hackneys, and those who know the firm need not be assured of this fact, as their good judgment in the selection and care of horses suited to the times is widely and well known. Read their advertisement, note their offering, and write, or call and see them.

FARMERS!

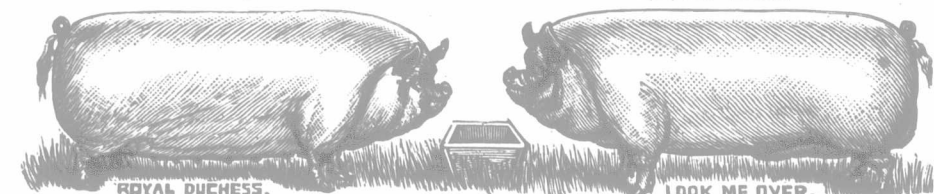
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SUMMERHILL HERD OF Large English Yorkshires.
HEADQUARTERS FOR THE IDEAL BACON HOG.



Our winnings at the large shows, for 1901, are as follows: At Toronto every possible first prize and five seconds, two silver medals, and first for pen of pure-bred bacon hogs, also sweepstakes on bacon hogs over all breeds; at London every possible first but two; while at the Pan-American, where our herd was divided, half going to Toronto, we won six out of ten possible firsts, also sweepstakes on boar any age. At the Pan-American (Buffalo), Toronto and London there were thirty-six first premiums and medals given: all the medals and every first prize but six won by the Summer Hill Yorkshires. When in need of the best write **D. C. FLATT & SON, MILLGROVE, ONT.** Telephone: Millgrove, Ont.

Maplewood Herd



7 IMPROV'D LARGE YORKSHIRES
PRIZEWINNERS AT
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IMPORTED AND CANADIAN-BRED.

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Nelles' Corners Station and Telegraph.

Large English Berkshires.
My herd consists of sows imported from England; three of them (including a show sow) were selected from the herd of Geo. Green and were bred to his show boars. Young stock for sale (not akin).
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Boars fit for service, sows in farrow and ready to breed, and young stock on hand. Prices reasonable.
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Best type and quality. Young stock constantly on hand. Prices right. **E. HONEY,** om
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Headed by Oak Lodge Prince 5071. Litters 15 weeks, either sex; 2 sows to farrow.

WM. TEASDALE, Dollar, Ont.
Northern branch G.T.R., 15 miles from Toronto. om

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Mammoth Bronze Turkeys.
S. C. and colored Dorkings, S. C. Br. Leghorns, Barred Rocks, Toulouse geese—over 500 grand young birds from winning strains. Pairs and trios mated not akin.

ALFRED E. SHORE, White Oak, Ont. om

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GEESE. Order at once, as we have only a few pairs left. A few B. P. R. COCKERELS. **W. W. EVERITT,** Chatham, Ontario. Box 552. om

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INTERNATIONAL COLIC CURE.
INTERNATIONAL HAIRNESS SOAP.
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SILVER PINE HEALING OIL, ETC.

GOSSIP.
At the annual meeting of the American Cowsold Association, held at Chicago, Dec. 3rd, 1901, the Secretary-Treasurer's report showed receipts for the year amounting to \$1,495, payments \$1,417.68, a balance for the year of \$80.32, and a balance brought forward from 1900 of \$661.74, making a total balance on Nov. 23rd, 1901, of \$742.06. Officers elected were as follows: President, D. McCrae, Guelph, Ont.; Vice-President, D. B. Watt, Xenia, Ohio; Secretary-Treasurer, Geo. Harding & Son, Waukesha, Wis.

J. & W. B. Watt, breeders of Shorthorn cattle, Clydesdale horses, and Leicester sheep, Salem, Ont., write: "Business is brisk, plenty of sales, and the stock doing well. Among other recent sales was the two-year-old bull, Brilliant Star, to Mr. John Donnelly, Grafton, North Dakota. Brilliant Star is a heavy, well-bred bull, sired by Charles Dickens =2418=, first-prize aged bull at Toronto and London in 1900. His dam, Morning Star =20170=, is a large, thick-fleshed cow that should raise the best of bulls to breed from. To Mr. David Harrell, Austin, Texas, five heifers; and later, at Chicago, the young English Lady bull, Royal Hope, and Matchless 30th, both got by Royal George =28553=. To Mr. Robert Batty, Meaford, the bull calf out of Village Gem, to W. C. Edwards & Co., Rockland, Ont., the yearling Missie heifer, Lady Aberdeen 2nd. The other day we sold to Mr. John Leppington, Bredenburg, Assiniboia, the cow, Palmerston Daisy, and calf; two young heifers, a Matchless and a Stamford; two Leicester ram lambs, eighteen ewes, one young Clydesdale stallion colt, and two yearling fillies, all three registered. One of the fillies, Roseola, Montrave (3045), was the first-prize Canadian draft filly at Toronto Industrial and several other fairs, never being beaten as a yearling. To Mr. J. E. Meyer, Kossuth, the Matchless bull, Matchless Duke. These are some of the sales we have made this winter, and we have still on hand and for sale several registered ewes and lambs, a Mildred, an English Lady, a Missie and a Matchless bull, and a few females; also a registered brood mare."

Lake View Stock Farm lies in the County of Durham, about one and a half miles from the town of Cobourg, which is the firm's P. O. and R. I. station. The owners, Messrs. C. & J. Carruthers, are among Canada's oldest Shorthorn breeders, having for a great many years been engaged in the breeding of Shorthorn cattle and Berkshire and Yorkshire pigs. The Shorthorns are principally of the well-known Beauty family, on which have been used such bulls as the following: Bomanton Boy 23514, by Imp. Baron Lenton; Duke of Baltimore 15845, by Baron Baltimore; Indian Wave, by Imp. Indian Chief; and Royal Charlie 30118, by Prince of Wales. The present stock built is British Hope 30946, by Salisbury 27135; Dam Maid of Promise 8th, by Lord Stanley. He is a dark red, one of the modern kind, showing great width and depth, with an abundance of flesh, evenly distributed, and is a grand stock-getter, as the youngsters in the herd show. The females, both old and young, are the kind that are in demand. The three young bulls that are offered for sale are a short-legged, evenly-built lot, and will without doubt develop into big, choice animals. The Yorkshires are descended from that great stock boar, The Squire (Imp.), and are of the celebrated Hollywell strain, on which have been used boars from the well-known Featherston and Oak Lodge herds. The Berkshires are of Snell and Green breeding, better than which there is none. There are young stock of both breeds for sale, and parties dealing with the Messrs. Carruthers can rest assured that everything will be exactly as represented.

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Kinsley, Neb., May 24, 1901.—We sent to you some time ago for your Lump Jaw Cure. One application made a complete cure. The lump had been on over a year.
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Continuous tests for two years prove that Fleming's Fistula and Poll Evil Cure cannot fail. Easy to use, prompt in results; cures in half the ordinary time. Simple, humane, scientific; guaranteed.
Write for circular today.

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It is worth while to write us today for circulars describing the above remedies. Mention this paper.

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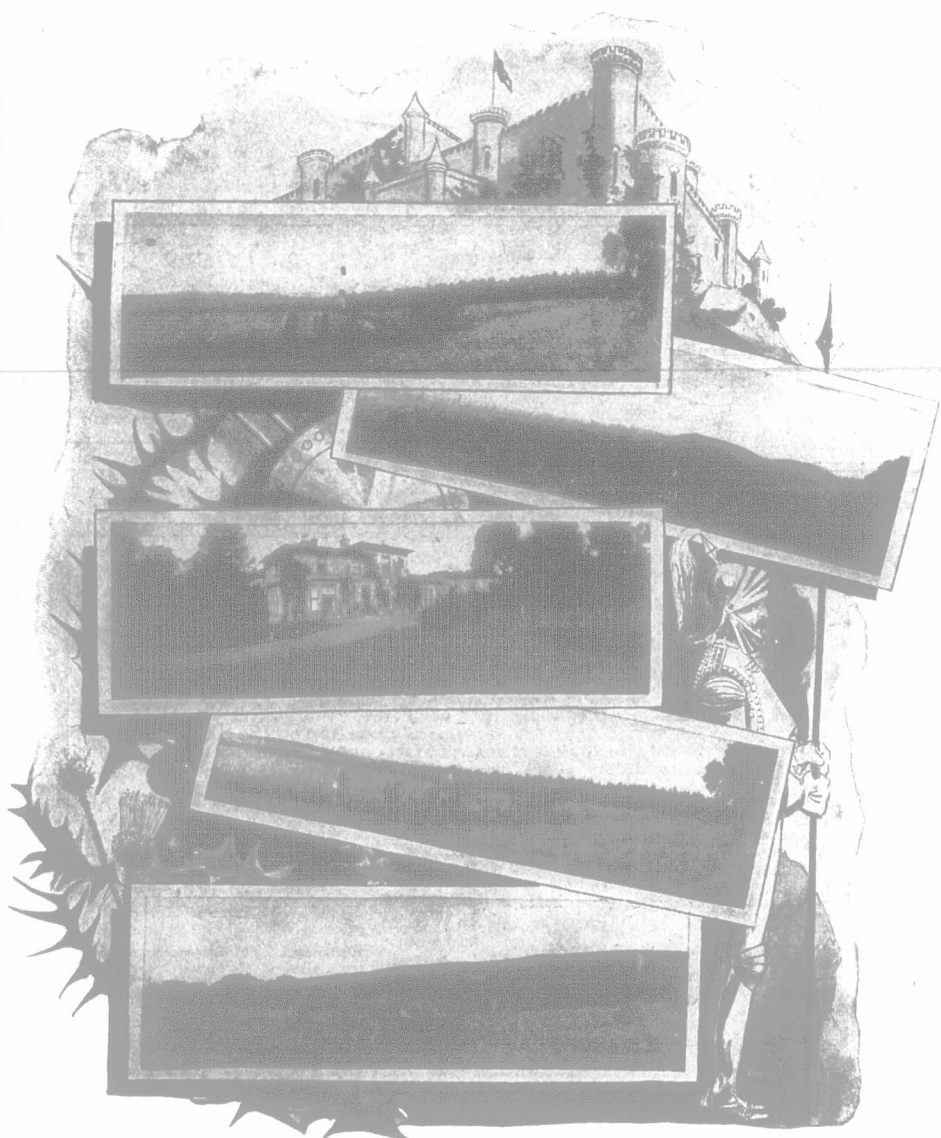
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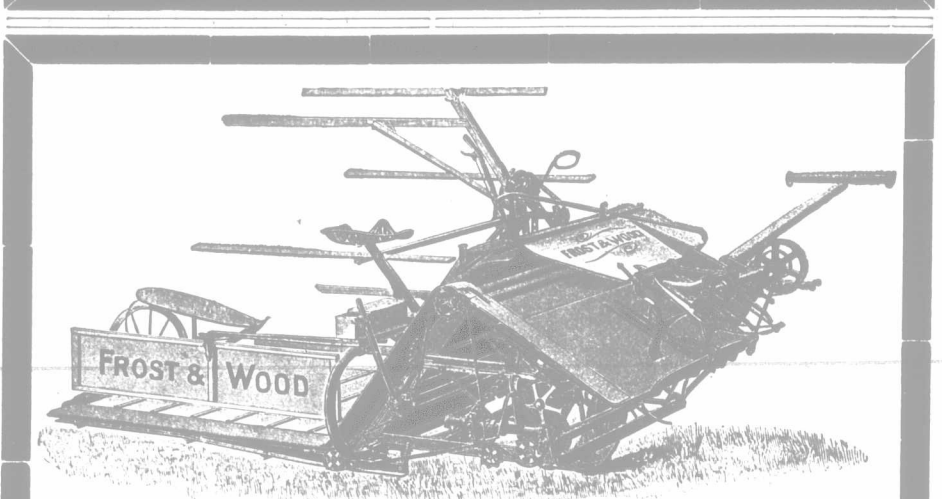
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GOSSIP.
Geo. Perry, Deloraine, sets the mark for his district in Shorthorns, and in order to keep up to the top, has procured a bull from the noted herd of Jno. G. Barron, Carberry.

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WE take pleasure in offering to the public a saw manufactured of the finest quality of steel, and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A saw to cut fast "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves.

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