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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED

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

VOL. XXXV. LONDON, ONTARIO. MARCH 15, 1900. WINNIPEG, MANITOBA. No. 498

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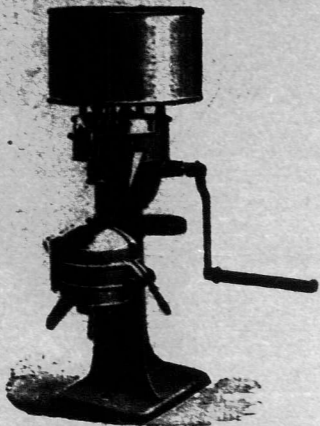
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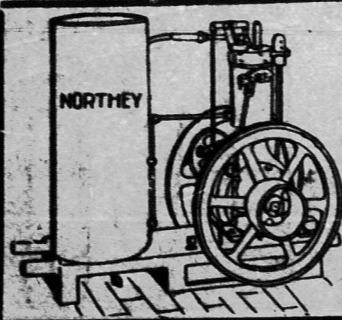


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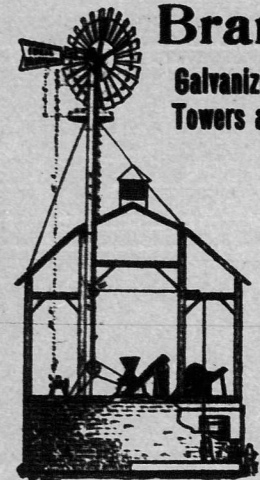
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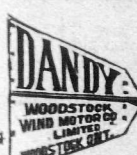
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AND HOME MAGAZINE

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

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VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., MARCH 15, 1900.

No. 498

EDITORIAL.

"Canada's Ideal" Issued.

Late last week the final touches were given our great premium picture, "Canada's Ideal," which we have begun mailing, securely encased in tubes, to the purchasers at \$1 each and to those who have earned it by sending in two new subscribers to the FARMER'S ADVOCATE. Representing the cosmopolitan Shorthorn breed, and executed by the best artists and engravers of the continent, we feel sure it will meet with an appreciative reception and do much to further the interests of rearing cattle of a superior type.

Six Hundred Dollars per Ton for Stock Food!

A reader in the County of Norfolk, Ont., writes the FARMER'S ADVOCATE to know if there is a man living in London, Ont., by the name of "B. Shine," delivering a stock food bearing the name of a western American city. He is described as a man of six feet in height, having a light beard, and wearing a brown overcoat and a corduroy peak cap. We have looked up the city directory and made diligent enquiry, but can learn nothing of such a party in London.

The writer then goes on to say that on Wednesday, February 21st, a traveller came to their place saying that he was selling the food in question, and persuaded the farmer to sign an order for two sample packages of ten pounds each, for which, after he had tested and found satisfactory, he was to pay \$6, and give a testimonial; in other words, he was to be charged at the rate of no less than \$600 per ton for the stuff. On the packages it was represented that the food was endorsed by every government in the world, though what some governments know about food for stock would not crowd a very bulky volume. The head offices of the concern were in Chicago, but there were branch offices in Canada, Australia, Germany, and France. Six days afterwards, another man, who gave his name as B. Shine, made his appearance with 62 packages—\$150 worth (or at the rate of \$483 per ton)—saying that amount had been ordered. The order which the farmer had signed was drawn by the agent with a black lead pencil. There was a vacant line in the order, through which, when the farmer was signing, he marked a waving line, but in the order produced by the man who brought the packages, that mark was apparently rubbed out, and sixty-two ten-pound packages written in its place. The food was refused, and finally the man said if five packages were taken at \$15 he would surrender the order. This proposition was also refused, and at last he said if the farmer would pay \$10 for three packages he would give up the order, which was agreed to, whereupon the man burned the order in the house. He would not give a receipt for the \$10, saying that the three packages of food was receipt enough. Burning the order was simply a prudent precautionary measure on the part of the agent. The original agent, who took the order, said his name was John A. Law, of Toronto, but the man, "Shine," who made the delivery, said it was T. Belmont, of Chicago, so that probably none of the names were genuine. Our correspondent fears that he may yet have further trouble—though we think not likely—and desires us to put the public on their guard against these parties, who appear to be resorting to methods the nature of which we have scores of times exposed, and of which too many farmers have learned by dearly-bought experience. He encloses a sample of the food, which seems like a finely-ground mixture of corn meal, shorts, perhaps a little oil cake, and possibly a pinch of saltpetre. Most men would think themselves in a fair way to become millionaires in short order if they could realize \$500 or \$600 per ton for chop stuff,

even if finely-ground and done up in fancy packages.

In our "Questions and Answers" department will be found a reference to the sale, in another county, of an alleged remedy for codling moth by plugging an auger hole in the tree with a mixture of chemicals.

For Good Roads.

It is gratifying to notice that the Ontario Government has signified its willingness to expend \$1,000,000, in installments of \$100,000 per year, on the construction of improved country roads in the Province in the next ten years. The measure under which the money will be appropriated, and the system under which it shall be expended, have not yet been made public, but we trust a plan may be evolved which will be practicable and satisfactory to the bulk of the people interested. It is presumed that the expenditure will be contributed in the form of an appropriation to municipalities which agree to pay the prescribed proportion of the cost of construction provided for in the bill. Whether the proportion named be one-third, one-half, or more, we hope the scheme will be met by the people in a broad-minded and liberal spirit. There is certainly great need for such a movement in most of the counties of the Province, the roads in many districts being at certain seasons almost impassable, involving serious loss to farmers at times from their inability to team their produce to market when prices are on the rise or when farm work is not pressing, and also causing much loss of time and much discomfort in the case of those living far from town. If a portion of the leading roads in each county were well constructed each year, and that of a permanent and lasting character, the example would no doubt be so satisfactory as to lead to the steady extension of the system, and if the leading roads in each county were improved on a plan to connect with those of adjoining counties, a system of Provincial highways might in a few years be established which would greatly facilitate travel. We anticipate the advent of the system of free rural mail delivery at no very distant date, and good roads are an important preliminary step towards that desirable end. The enterprise may easily be rendered inoperative if local jealousies and narrow views are allowed to influence the people, but all should strive to rise above such feelings and support any reasonable proposition for the general good. It is clear that all cannot have the benefits of the system brought to their own door at the outset, though most people may receive some benefit from the very beginning of the work, and all will, in time, with the extension of the system, receive increased benefit. If it is required that for a time those living near to the main lines to be first improved shall pay a larger proportion of the cost than those at a greater distance, it would seem but reasonable, and in any case the amount required in addition to the Government grant would not be burdensome when spread over a whole county and over a number of years. The work will doubtless be carried on under some uniform plan, in which the three main essentials of a good road, viz., drainage, grading, and coating with gravel or broken stone, will be incorporated.

The stock-breeders of Minnesota are uniting in an effort to secure from the railroads reduced freight and express rates on pure-bred stock. The Breeders' Associations of Manitoba and the Canadian Northwest are also making a combined application to the C. P. R. Company for better rates of freight and express rates on pure-bred stock between local points, with good ground for the hope of securing important concessions. There is reason and common sense in this movement in the interest of the breeders and farmers, and of the railway companies as well, and we are distinctly in favor of this kind of work in preference to Government or railway paternalism.

Government Stock Sales.

The question has been raised whether in our remarks on this subject in our last issue we were justified in designating as Government sales the proposed series of combination stock sales which Breeders' Associations have been asked to endorse. Our reply is, that so far as we are aware the idea was not entertained nor proposed by the breeders until it was first intimated to them that the Government was prepared to grant money towards the expenses of holding such sales, and to our mind the resolution passed by the Shorthorn Breeders' Association, which we herewith reproduce fully justifies the term applied to the scheme. Here is the resolution:

Moved by Arthur Johnston, seconded by W. J. Biggins, "That this meeting is of opinion that a well-conducted sale, under the supervision of the Dominion Government and with the best type of animal contributed, would be beneficial to the breeders of this country." Carried.

The FARMER'S ADVOCATE has always favored generous Government grants to agricultural societies for the encouragement of open competitive exhibitions of live stock and other products of the farm, with a view to improvement in the character and quality. We have also favored liberal aid to the breeders' associations, for the purpose of supplementing their prizes at the Spring Horse Show and at the Winter Fat Stock, Dairy and Poultry Shows, believing that these are legitimate methods of promoting the improvement of stock, which are open on equal terms to all farmers, and we are fully in sympathy with those enterprises. Moreover, we have always given credit to the directors of these associations as being able and honorable men, broad-minded and liberal in their views, and in intelligence and business ability not only comparing well, but standing head and shoulders above their compeers in the same class in any other country we know of. We have also cheerfully thrown our influence in support of the excellent work accomplished by the breeders' associations, with the assistance and co-operation of the Ministers of Agriculture, in securing reduced freight rates from the railway companies for the carriage of pure-bred stock, believing this to be legitimate work and in the best interest of the whole country. In fact, the whole question of the transportation of live stock generally, horses included, presents a wide field of opportunity for vigorous and unremitting attention by the Government. Trade will develop fast enough if given a chance. Witness the immense impetus given the Canadian cattle industry by removing the vexatious international quarantine. But when it comes to a question of State subsidies to any business, whether solicited or offered unasked under a mistaken idea of its need, and especially to the introduction of a system of business in which we know a large proportion of the leading breeders have no confidence, and upon which many of the smaller breeders and the farmers generally are sure to look with suspicion and distrust, it has appeared to us that the question is one which calls for more careful consideration than it has received. We have too high an opinion of the rank and file of Canadian breeders to believe that on sober second thought they will approve of this pap-feeding process, which has a tendency to make mendicants, rather than men.

We are of the opinion that if the proposition had been made at the Shorthorn breeders' meeting to use a portion of their own surplus of \$8,500 in paying the costly expenses of such sales, it would have met with a very different reception, and yet if the members have confidence that such sales would be in their interest, why should they not devote a part of their fat surplus to this object? Was it the sugar-coated promise of Government funds to pay the expenses of the venture that enabled them to swallow the proposal with so little protest? The system of Government paternalism, and of meddling

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THE LEADING AGRICULTURAL JOURNAL IN
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1. THE FARMER'S ADVOCATE is published on the first and fifteenth 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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with the rational and natural current of business, has little, if anything, to commend it to favor. Spoon-fed people, as a rule, fail to prove progressive, and there is no business so healthy and sound as that promoted by energetic private enterprise. This has been proven in innumerable instances by the unhappy experience of many municipal corporations in bonusing manufactories and other business schemes. In Britain, where the success of the pure-bred live-stock industry has not been paralleled elsewhere in the world, the Government have never attempted to meddle with the business, and we can find no better precedent. The industry is flourishing here, as witness the large numbers of animals imported in order to meet the increasing demand, showing the scheme to be unnecessary.

The latest instance of the injurious effects of meddling with matters of business to help farmers is that of the free distribution of pure-bred stock in the Canadian Northwest by the Canadian Pacific Railway Company—against which we protested at the time—a scheme which, in theory, no doubt looked reasonable to its promoters and commendable to some others, as the object was to improve the general stock of the country, and, at the same time, to make business for the Company in the future in the shipment of beef cattle over the road to the Eastern markets.

While the free distribution of from 80 to 120 bulls over the vast territory of our great Northwest would be but as a drop in the ocean, the announcement has been met by some several hundred applications, and the result is that the enterprising breeders of Manitoba, who invested largely in first-class stock, paying high prices and the exorbitant freight rates formerly charged by the C. P. R., find their business paralyzed, and instead of coming to the Eastern Provinces to purchase stock, as in former years, are now on their beam-ends, with over 300 bulls fit for service for sale, and waiting for something to turn up. The following extract

from the address of Mr. Walter Lynch, the retiring president of the Manitoba and Northwest Cattle Breeders' Association, vigorously sizes up the situation from his standpoint and that of the Manitoba breeders:

"I am sorry I cannot congratulate you on a more hopeful outlook for the breeders of pure-bred stock in this country. Everywhere else that industry is in a more flourishing condition than it has been for many years, and here, too, things looked promising a year ago. The trains between here and the East were filled with people going for stock or returning with the very best that could be brought in the East. To-day there is nothing of that kind. I do not know of a single person bringing in fresh stock. There may be some in the southern parts, brought in for the American markets, for I believe the C. P. R. have not extended their generosity to our American friends; but practically the business is dead, and the reason is not far to seek. The insane policy of the C. P. R. in bringing in free sires has simply paralyzed the business. This is a big country, but we cannot produce stuff of any kind here to compete with free stuff from any other place. When I speak of the insane policy of the C. P. R., I speak of their own explanation of it; that is, to improve the stock without coming into competition with the breeders of this country. All they propose to do is to supply our market with free stuff from some other place. I believe it is something a good deal worse for us than an insane policy. It looks like a deliberate attempt to smash the business in this country for the benefit of some other place or persons. Why they should want to do so, I do not know, but there is some reason for it which we will probably learn later on. Perhaps by the time our breeding establishments are closed, Mr. VanHorne or some other C. P. R. magnate will be able to supply this stuff, and then rates from the East can be made high enough to prohibit importations. *But one thing we all know*, it was not until after we had sent stock to the eastern exhibitions, and successfully competed in eastern showings, that they discovered we had no cattle of any account, and wanted to improve them. This discovery was made at Toronto, the center of the breeding interests of Ontario, by a Toronto man at an Ontario exhibition, surrounded by the breeders of Ontario, with these Manitoba cattle wearing their red ribbons before their eyes. It was certainly a most unfortunate time to choose to make such a discovery."

Such a scheme might be excused if there was any real need for it, and if it could be shown that the people who were looking for free stock were likely to be permanently benefited, but our observation is that those who are looking for something for nothing are not likely to take care of what they get, and it is well known that good breeding and good feeding and care must go hand-in-hand in order to satisfactory results, which is more certain to be the case when people put their own money into stock. The C. P. R. free-distribution fad involved endless difficulties, and was evidently not coming up to expectation, for at a recent convention in Winnipeg an official of the Company announced that it had been abandoned.

Canadian Products on the British Market.

FROM OUR ENGLISH CORRESPONDENT.

Amongst matters likely to interest your readers, I know of none more so than the question of imported Canadian produce; I mean those commodities which you produce in larger quantities than you consume, shipping the balance to our markets. It is needless going through a long list of articles, for the principle at stake in one is pretty much the same in respect to others; for instance, there is bacon, known to be sent us in large quantities from your country, and, according to reports of its purchasers, as judged by the value it realizes here, of excellent quality; yet, strange though it may appear to your readers, though I am constantly in London and at many of the leading towns of England, I do not know that I have ever seen any shop, or store, as you call them, where Canadian bacon is sold. Then, again, in respect to cheese, American is the general tune; then in respect to butter, the tune is Colonial, which includes a lot of different Colonies, but no individual one; and thus one after another of your exports might be enumerated, and few, if any, would be found to be sold as Canadian. This surely is not as it should be. I prefer, as an Englishman, to spend my money for English produce, and hence, would naturally prefer to buy that produced within the limits of the Empire rather than that from other sources. Then, again, every tub should stand upon its own bottom, or, in other words, the country producing any commodity should either have the credit or discredit, as the case may be. This matter is one that needs the attention of your authorities, it being, of course, impossible for purchasers to discriminate between the produce of one country and another; hence, it appears to me that it would be a grand thing and a great benefit to your country to have a central depot in London or Liverpool, or both, and small branches in other centers, whereat Canadian products only should be sold, and depend upon it, if those products were of that high merit and quality those

were that I had the privilege of sampling when on my trip in Canada, the demand would soon be found to repay the cost incurred. What I want to bring home to your readers, who are practically the producers of most, if not all, the commodities which would be affected, is the bare, startling fact that a far larger proportion of the Canadian produce sent us is sold under some other name than Canadian, possibly a good deal goes for English produce; but whatever may be the description under which it is sold matters not, for it does not alter that fact, namely, that Canadian farmers and producers are not receiving nearly all the benefits the high merit and quality of their products merit.

A sale of considerable importance and interest is announced for June 29th, 1900, namely, the usual draft sale of Shorthorn cattle and Southdown sheep from the herd and flock of H. R. H. the Prince of Wales, at Sandringham. The high merit and quality of both the herd and flock is too well known to need recapitulation, and therefore we feel confident that this simple announcement will be equally effective as any longer or more elaborate one. With respect to the numbers included in the sale, we are informed that they will consist of about 60 Shorthorns, male and female; the whole of the yearling Southdown ewes and twenty yearling rams. Canadians who are in England at the time should not fail to attend this important sale, whereat full opportunity will be afforded them to see the grand herd and flock.

STOCK.

Combination Sales of Pure-bred Stock.

It has been proposed, and somewhat publicly made known through the press, to hold combination public sales of pure-bred stock yearly at different points in the Provinces, those who are advocating the establishment of these sales claiming that they would be in the interests of not only the large breeder, but more particularly the small breeder. They claim it would bring the breeder and generally the buyers or farmers in contact with each other, and be the means of bringing the stock of each breeder under the notice of the buyer, at the least possible expense to the purchaser. It is not justifiable to denounce, or say it cannot be made a success, any scheme or undertaking until it has a chance of a fair trial. Neither is it wise to say that, because a project has been tried once and proved a failure, under different circumstances and conditions it cannot be made a success. I am aware that such sales are held yearly (more particularly in Scotland, I believe), and with success, I suppose, as I find they continue to hold them. But there are some reasons that seem to present themselves to my mind why they would not be a success here. If these can be overcome and the holding of these sales will not only help the large but also the small breeder, and as well do good to the average farmer, I can say by all means let us have them. Some of these sales have been held in the past and did not prove a success, but a failure, but perhaps there were reasons why this was so. When it is only a draft from any breeder's herd or flock that is offered, the public will likely come to the conclusion, rightly or wrongly, that it is only the culls that are offered, and of course be chary about buying. Another objection seems to me to arise—there will be some expense to the breeder in getting his animals to the place of sale, and if he has some misgivings that he will not realize as much for them at such a sale as he can in his own stables, he will be loth to put them in. As a general thing in my own neighborhood, breeding stock does not realize as much at auction sales as they do in the breeders' stables. At present the supply of breeding stock hardly is equal to the demand, and while this is the case I think the breeder will prefer to sell at his own stable, where he can set the price himself. In a draft sale there is not the same confidence between the buyer and the seller; the public seem to be suspicious, thinking only the poorest animals are being offered and if good ones are offered they will not be sold unless extra prices are procured. These and other objections present themselves, but perhaps enough has been said. What little I have said is with the view, if such sales are proceeded with, that these obstacles may be guarded against.

JAS. TOLTON.

Bruce Co.

Government Stock Sales.

The object of the Government in offering to assist breeders of pure-bred stock in holding auction sales is, no doubt, to encourage the rank and file, or ordinary farmer, to improve his stock, and I believe it would have that effect. It may not directly benefit the long-established breeder, but indirectly I think it will, as farmers having only a few will have more confidence in the business, and will buy better bulls to head their herds. I think there is room for expansion along almost every line of stock-breeding except the *bacon hog* line. The success, however, of the undertaking will very largely depend on the management and the liberal encouragement the railways will give to the enterprise. The details in connection with such contemplated sales will require considerable thought and time. EDWARD JEFFS.

Simcoe Co., Ont.

Milking the Government Cow.

To the Editor FARMER'S ADVOCATE:
 SIR,—I have read Mr. Isaac's letter in your issue of the 1st inst. in reference to combination sales of pure-bred stock by public auction. I am strongly of the opinion that such sales, properly conducted, will be of the greatest benefit to all breeders of all pure-bred live stock. We often see a small breeder, perhaps a new beginner, who has a bull or two for sale, refrain from spending \$10.00 or \$20.00 in advertising, and we often find that the animals remain on his hands until they have eaten their heads off. If this breeder could take them to a well-advertised sale with assurance that he could sell them at a fair

Combination Sales.

To the Editor FARMER'S ADVOCATE:
 SIR,—In reference to holding combination public auction sales of pure-bred stock at different points in the Province, under public control, and under rules and regulations approved by the various breeders' associations, this is not altogether a new question, and we all know from past experience that combination public auction sales have been a failure so far as they have been tried in this country. I think perhaps if they could be rightly established and placed on a sure and substantial footing they would be of advantage to both the breeders and farmers. But I am very much inclined to think that in a country like this, where the transportation would be expensive owing to the long distances that some stock would have to be shipped, and some people would have to travel, it would be very difficult to get breeders to risk the expense that would be necessary, and risk entering first-class stock in a sale of that kind without having some assurance that they would not be sacrificed. Then, on the other hand, it would be necessary, to insure a good attendance of buyers at a sale of that kind, that they should have some guarantee that they could secure what they want to buy at a fair market price. It has been said that no animal after being entered for the public sale should be sold privately, but that would be a hardship on the breeder; for instance, he might enter a number of cattle in the sale, say this week, and in a few days a buyer comes along and offers him all he would expect to get for one or more of the animals entered, and what he considers a good price, but owing to having entered them in the sale he could not sell. Perhaps the buyer could not be present at the sale. I would like to see your valuable columns used freely to discuss this very important question.
 JOHN GARDHOUSE.
 York Co., Ont.

"Canada's Ideal."

We give herewith a brief sketch of the breeding and show record of the twelve notable Shorthorns whose portraits appear in the fine premium picture just issued from the office of the FARMER'S ADVOCATE, entitled "Canada's Ideal," which is being eagerly enquired for and ordered by a large number of our readers in all the provinces and many of the States, and which is greatly admired by all who have seen it.

Judge = 23419 =, the first of Manitoba's big four, is a roan bull, and was calved Sept. 26th, 1895. He was bred by J. & W. B. Watt, Salem, Ont., and is owned by Hon. Thomas Greenway, Crystal City, Man. Sire imp. Royal Sailor = 18959 =, dam Mildred 4th = 22941 =, tracing to imp. Minnie, alias Mildred = 5175 =, of Mr. S. Campbell's (Kinellar) Mina tribe. Judge won 2nd prize as under a year at Toronto Exhibition (1896), 1st at Toronto as yearling in 1897, 1st and sweepstakes at Winnipeg (1896) Industrial, and was at the head of the 1st-prize herd at that show. His sire, Royal Sailor, was bred by W. S. Marr, Upper Mill, Aberdeenshire, and got by Sea King (61769), dam Red Lady 18th, by William of Orange. The dam of Judge was got by imp. Hospodar = 2703 =, and her granddam by Challenge = 2933 =, a son of Barmpton Hero = 324 =.

Topsman = 17847 =. Red. Calved December, 1891. Bred by J. & W. Russell, Richmond Hill, Ont. Owned by and used for four years in the herd of J. G. Barron, Carberry, Man. Sire Stanley = 7949 =, dam Nonpareil Victoria = 17138 =, by imp. Vice Consul (60112), g. d. imp. Nonpareil of Kinellar = 8314 =, bred by S. Campbell, Kinellar. Topsman won 1st prize in 1896, 1st and sweepstakes in 1897, 1st and sweepstakes in 1899, at Winnipeg Industrial Exhibition, in the hands of Mr. Barron; also 1st prize and sweepstakes at Toronto, London and Ottawa in 1899 as the property of Capt. T. E. Robson, M. P. P., Iderton, his present owner. Stanley, the sire of Topsman, was got by Challenge = 2933 =, and out of imp. Wimple 15th, bred by S. Campbell, Kinellar. Topsman is the sire of Moneyfuffel Lad = 20521 =, sweepstakes bull at Toronto in 1895 and 1896. He is also sire of 1st-prize Manitoba-bred herd at Winnipeg Exhibition, 1899.

Matchless 18th = 29130 =. Red. Calved Oct 19th, 1895. Bred by J. & W. B. Watt, Salem, Ont. Sire imp. Royal Sailor = 18959 =, bred by W. S. Marr, Upper Mill, Aberdeen; dam Matchless of Elmhurst 9th = 17269 =, by Perfection = 9100 =, by Barmpton Hero = 324 =, and out of imp. Lovely 19th = 306 =, bred by Amos Cruickshank, Sittyton. Matchless 18th won 2nd prize as a 2-year-old at Toronto Exhibition in 1896, and 1st as a 3-year-old and sweepstakes as best female any age at Toronto, 1899.

Royal Member = 17107 = (64741). Roan. Calved April 16th, 1892. Bred by the representatives of the late S. Campbell, Kinellar; imported in 1892 by Arthur Johnston, Greenwood. Owned by H. Cargill & Son, Cargill, Ont. Sire Royal James (54972), dam Nonpareil 32nd, by Borough Member (33186). Royal James was sired by Cumberland (46144), used exclusively in the Sittyton herd of Mr. Cruickshank. Borough Member was a pure Booth bull, probably one of the highest-priced bulls in his day. He was by Lord Blythesome, and out of Lady Faithful, by Baron Killerby. Royal Member has not been exhibited.



IMPORTED SHORTHORN BULL, ROYAL MEMBER = 17107 =.
 OWNED BY H. CARGILL & SON, CARGILL, ONTARIO.

price and have his money to bring home with him, he would feel encouraged, and perhaps go to Mr. Isaac's for another bull to propagate more of like kind; and his neighbors, seeing how well he had done, would wish to do likewise. Thus the good work would go on and on, and in a few years there would be an immense increase in the number of breeders of pure-bred stock of one kind or another.

I look upon the Hon. Mr. Fisher's proposition as the most progressive that has ever been offered to the farmers of this country. How farmers can grumble at the small sum of two thousand dollars being set aside for their special benefit I cannot understand. If a few promoters and politicians wait on a government to get a grant to improve a harbor, build a dock or post office, no one speaks a word in opposition, except politicians; but if any part or section of the farming community want even a very few dollars, comparatively, the farmers themselves throughout the country are the first ones to hold up their hands in holy horror against it. The Government of the Northwest Territories are doing a noble work for the people of their part of the country. If such sales as are proposed were established, the people of the Northwest Territories, and also the Americans, could and would attend, as they could get the animals they want without travelling over the country for weeks, at great expense of time and money, often to be completely disappointed in the animals they see and have offered to them. By all means have these sales established, get all the money we can from the Government to help us, and ask for more, and then we shall not have too much. Under the management of Mr. F. W. Hodson, success from the very commencement is assured.
 WM. LINTON.
 York Co., Ont., March 5th.

[EDITORIAL NOTE.—We notice that in the arrangements for the Central Shorthorn Breeders' Association sale at Kansas City the expense has been fixed at \$20.00 per head, and the sale is managed and expenses provided by the breeders themselves and not by the government. Added to that sum, we presume, will be the cost of shipping animals to the place of sale. The author of the above document appears to have a rather fanciful way of putting his ideas of the cost of selling animals in ordinary procedure. With the business in politics, what the outlay for government combination sales might be it would hardly be safe to forecast, but as the government is to foot the bill, in the words of "The Mikado," "it really doesn't matter."]

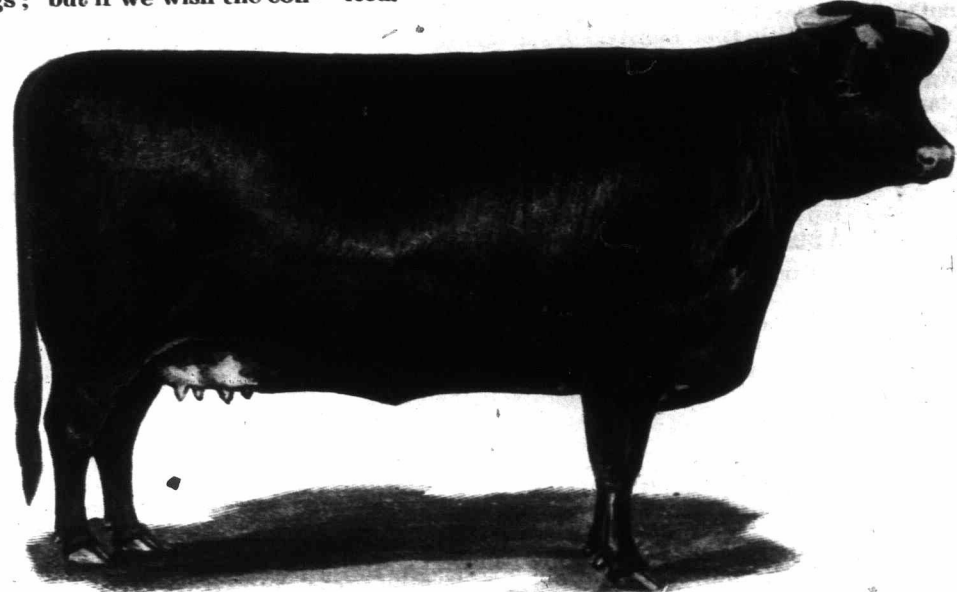
The Show at Mafeking.

The development of the show system is remarkable among the English-speaking people all over the world, but we have rarely noticed a more striking evidence than the note in a recent message from our beleaguered South African town of Mafeking, which has been invested by the Boers for four months. A recent telegram from the little town in which Colonel Baden-Powell and his brave comrades have made such a gallant stand against the enemies of the country, remarked, among other items of interest: "We have just held our Agricultural Show, and it proved very successful." The holding of an agricultural show amidst the constant fall of shells from an investing army must be a unique experience.—London Live Stock Journal.

Dogs and Sheep.

To the Sheep Farmers of Ontario:

At the last session of the Ontario Legislature we were promised that at the next session the dog and sheep law would be brought up for amendment. As the promised time is now at hand, we should like to hear, through the papers and otherwise, from all interested in the matter, with a view of assisting the Assembly to amend the law. All who have read the papers during the past year have noticed that the destruction of sheep by dogs has been very great. The present law is unjust to breeders of sheep and owners of dogs; but if we wish the conditions improved we must look after it, and have the necessary changes made. As one of the sheep breeders of the Province, I would offer some amendments I think we should have: 1st, full value for sheep so killed or destroyed; a set maximum price should be established for registered and unregistered sheep, and judged by one or more inspectors in each municipality, to be appointed by the council, same as fence viewers or poundkeepers; and that it be the duty of the assessor to collect the dog tax, and furnish each dog-owner with a tag, for which he will pay an annual fee of cents, which would be a means of getting rid of a lot of worthless curs, and the tax would be collected in full on all worthy dogs, as all dogs without tags are game. All cities, towns, and incorporated villages shall bear a share of the loss caused by dogs worrying sheep, in proportion to the number of dogs kept in each. 4th, say a tax of three dollars on each bitch and one dollar on each dog, which would induce a better breed of dogs to sell. Hoping to hear through the ADVOCATE suggestions to meet the case, we wait with patience.
 NORFOLK CO., ONT. J. H. WOOLLEY.



MATCHLESS 18TH = 29130 =.
 Champion female Shorthorn at Toronto Industrial Exhibition, 1899.
 BRED AND OWNED BY W. B. WATT, SALEM, ONTARIO.

Knuckle Duster = 28968 = (72793). Roan. Calved March 13th, 1897. Bred by J. Bruce, Inverquhomery, Aberdeenshire. Imported in 1896 by H. Cargill & Son. Owned by H. Smith, Hay, and A. W. Smith, Maple Lodge, Ont. Sire Waverly (69072) (sire of Smithfield winning steer in 1896), dam Augusta 42nd, of the Inverquhomery family of that name, by Cap-apie (58591). Knuckle Duster won 1st prize at the Western Fair, at London, 1899, over the 1st-prize bull in the same section at the Toronto Industrial Exhibition in the same year.

Rosabella = 19753 =. Red. Calved Jan 17th, 1891. Bred by Arthur Johnston, Greenwood, Ont. Born in Manitoba, the property of and now owned by

W. S. Lister, Middlechurch, Man. Sire imp. Vice Consul =4132=, a sweepstakes winner at Toronto Exhibition; bred by Amos Cruickshank, Sittyton. Dam imp. Rosabel =5202=, bred by Mr. Geo. Bruce, Heatherwick, Aberdeen. Rosabella was the 1st-prize cow over 4 years old at the Winnipeg Industrial Exhibition, 1890, and 1st as cow and two of her progeny, also 1st in 1891 as a heifer calf and in 1892 as a yearling. She is carrying her 5th calf, and two of her daughters are suckling calves.

Robert the Bruce =22635=. Roan. Calved April 3rd, 1890. Bred by H. J. Elliot, Danville, Quebec. Owned by C. A. Archibald, Truro, N. S. Sire imp. King James =20837=, bred by Mr. S. Campbell, Kinellar; dam imp. Mimosa =24832= (bred by Mr. Geo. Bruce, Heatherwick, Scotland), by Stockwell (50615). Robert the Bruce won 2nd prize and headed Mr. Archibald's 1st-prize herd at the Nova Scotia Provincial Exhibition, 1890. He also won 2nd at Halifax in 1896 and at St. John, N. B., in 1890.

Queen of the Louans, Vol. 16. Red. Calved Jan. 3rd, 1890. Bred by H. F. Brown, Minneapolis, Minn. Calved the property of Capt. T. E. Robson, M. P. F., Ilderton, Ont. Sire Golden Victor 30626, A. H. B.; dam Louan of Bowndale 2nd 33406, winner of 1st prize and sweepstakes at Minnesota State Fair, and 1st prize at Toronto Industrial Exhibition, 1896. Queen of the Louans won 1st prize as best heifer calf over 6 and under 12 months at the Toronto, London and Ottawa Exhibitions, 1890, in the herd of Capt. Robson, and has since been sold at a long price to W. D. Flatt, Hamilton, Ont.

Matabele Chief (73029), imp. Red. Calved June 21st, 1897. Bred by Mr. J. Wilson, Lower Perrieresmill, Huntley, Aberdeenshire. Imported in 1890. Owned by W. G. Pettit & Son, Freeman, Ont. Sire Sennacherib (67893), dam Meadow Queen 4th, by Boulevard (56906), bred by Mr. Duthie, Collynie. Sennacherib was by the Cruickshank-bred bull, Sovereign (61841), dam by Roan Gauntlet. Matabele Chief has not been exhibited.

Village Hero =14342=. Red. Calved Dec. 13th, 1890. Bred by H. & W. Smith, Hay, Ont. Owned by Walter Lynch, Westbourne, Man. Sire Prince Albert =3069=, dam imp. Village Blossom =2277=, bred by Mr. Amos Cruickshank. Village Hero is the sire of Vanity, 1st-prize cow at Toronto Industrial Exhibition, 1897, and of the bull, What-For-No, 2nd-prize 2-year-old bull at Winnipeg Industrial Exhibition, 1897. Village Hero also won the 1st prize at Winnipeg, 1897, for the best bull and two of his get, and his owner, Mr. Lynch, won at the same show 1st prize for cow and two of her progeny, with Ruby and her twin bull calves, sired by Village Hero.

Golden Fame =26056= (72610). Red. Calved Feb. 17th, 1897. Bred by the executors of the late Mr. S. Campbell, Kinellar. Imported in 1898 by John Isaac, Markham, and purchased at his sale, March, 1898, by W. D. Flatt, Hamilton, Ont. (his present owner), for \$720. Sire Emancipator (65447), a prize bull at the Perth Show and sale, and the highest-priced bull in the sale that year. He was got by Dauntless, bred by Mr. Cruickshank. The dam of Golden Fame was Golden Drop 10th, by Sittyton Sort (61831), by Gondomar (55821), dam by Gondolier, gr. dam by Roan Gauntlet (35289).

Marquis of Zenda =20064=, imp. Roan. Calved Feb. 26th, 1897. Bred by Mr. W. S. Marr, Upper Mill, Aberdeenshire. Imported and owned by W. C. Edwards & Co., Rockland, Ont. Sire Wanderer (60133), bred by Mr. Amos Cruickshank, Sittyton, from his Brawith Bud family. Dam Missie 123rd, by William of Orange (50694). As a 2-year-old at Toronto Exhibition, 1890, Marquis of Zenda was placed above the bull which at the Western Fair, London, the following week was given 1st place over the bull awarded 1st prize at Toronto Exhibition in the same section.

Artistic and Educational.

To the Editor FARMER'S ADVOCATE:

Allow me to congratulate you upon your artistic effort styled "Canada's Ideal." It is the best group of cattle I've yet seen, and your artist is entitled to great praise for the manner in which he has done his work. "Canada's Ideal" sounds well, inspiring, and may our young farmers carry the outline of the animals illustrated in their mind's eye as something they should aspire to own, a something that will bring them wealth besides gratification—the pleasure of owning good stock. It is not every one that can buy thoroughbred cows sufficient to start a herd, but no man need go without a good bull. I am sure your effort cannot but be appreciated, and, for one, allow me to tender my thanks for the engraving, and I would like to suggest to the Educational Department that every school in the Province should be provided with one as an educational chart. Truly,
RICHARD GIBSON.

Elevated Beds for Hogs.

Having seen in your paper last summer the plan of a hog pen with a raised bed or upper deck for the hogs to sleep on, and later having seen the fine new pen of D. C. Flatt, Esq., I have put up raised beds for about twenty pigs, and find that we can keep them drier and get them to take more exercise in the cold weather than with the plan of a single floor. A bed of straw will also last longer on the raised beds, which is a great benefit this year of scarcity of straw. FARMER.

English Notes.

FROM OUR OWN CORRESPONDENT.

The lambing season up to the date of writing has been a favorable one in nearly every district. Here and there one hears of some loss, but as a rule the general result has been remarkable for its freedom from losses, both in respect to ewes and lambs. The fall of lambs will not be a heavy one, but taking into consideration the fewer losses by death than usual, it may, we think, be generally estimated that the aggregate result will be an average one.

The individual report of flockmasters, or even different breeds, is hardly needful, for they would be of little interest to your readers, but we may say that the different breeds whose advertisements appear in your columns, and those of the individual and progressive breeders who likewise give you their patronage, are having good luck, with lambs of good quality, typical character and good merit. Selectors or importers who desire to import English sheep should consult your columns, for we can assure them that those breeders who place advertisements in your columns are first-class men, owning flocks of the highest merit and quality.

The demand for sheep for export has certainly not been so large during the past few months as has been the case in the preceding two years, but there has been shown greater discrimination and care in the selection of the smaller number selected, with the consequent rise in the prices paid. Mr. Henry Dudding's well-known flock continues to be the center of attraction to which many of the principal buyers of Lincoln sheep resort, upwards of 300 ram lambs having been sold already from that noted flock this year. This does not in any sense exhaust the supply; there are many more left, and many of the best have been reserved for the spring and summer trade.

Mr. J. E. Casswell's flock has done well in the Argentine sales, where its representatives are well sought after at first-rate value and prices.

The Hampshire Down sheep, too, are having a full share of the export demand. The wise policy of their council in spending a portion of the income of the society to advertise their breed is having the inevitable result (advertisements properly placed always do), namely, increased demand, with increased sales at good paying values.

One important attraction in the show list for the coming season will be of interest to your readers; i.e., for the Shropshire and West Midland, whose date of meeting has been moved forward from July to May, or, in other words, been put nearly first instead of nearly last in the more important summer shows.

Hoard's Stall Improved--Suggestion to Barn Builders.

To the Editor FARMER'S ADVOCATE:

SIR,—I want to thank you for sending me a Xmas number of the ADVOCATE in place of the one that went astray. I think that too much cannot be said in praise of the Xmas number. Our country may be justly proud of a farm paper like the ADVOCATE.

In your January 15th number you give Hoard's plan of cow stall for the good of an inquirer. As I use Hoard's cow stall, with a few changes made by myself, and which I think are improvements, I thought perhaps it might be a benefit to some of your readers to know what they are. Instead of boarding straight up next the feed hall, I let the feed rack slope towards the hall from the bottom of the rack, four or five inches. Doing this, you don't need to board so high to hold the feed, therefore it is easier feeding. About fifteen inches above the bottom of rack is sufficient to hold feed. Instead of using a halter for tying, I use the common cow chain with enough small chain put to it to let the cow's head just come up against the feed rack nicely when she is standing up, and let the ring slide up and down on a post from the bottom of the feed rack to the floor. This gives the cow more liberty to turn her head, keeps her up to her place better, and she can't get her head under the halter shank. Instead of using the feed box, I put in a manger board about ten inches deep and about two feet three inches from the feed hall. I have one board in the partition next the feed hall on hinges, so that I can feed ensilage, roots, etc. The more I see of other kinds of stalls and fastenings, the better I like Hoard's stall, as for convenience in feeding, cleanliness and comfort, I have not seen anything to equal it.

While you have published some very fine plans of barns, and it does seem as if it would be hard to improve on them, I think it is a very great convenience to have driveways on either side of barn, so that one can drive through. When there are two driveways one need not have an extra wide threshing floor so that you can get horses out when there is a load in, and you can have the draft rope of the horse fork just where the horses are when they come in with a load. Hoping that these few suggestions may help some one, as I have been helped by others, I remain,
Lanark Co., Ont. ROBT. K. JACKSON.

How to Breed Saddle and Harness Horses at a Profit.

Simple as it may seem to the uninitiated to raise horses at a profit, it is only comparatively few who manage to make horse-breeding a paying business. The reasons therefor are many and various, chief amongst them being: The speed craze—mismating and the consequent results; the wish to establish something new, and in so doing ride some particular "hobby" to death; the use of hereditarily unsound sires and dams; the use of totally opposite and undesirable types; and last, but not least, lack of practical knowledge and experience.

It is much easier to criticise the failure of others than to demonstrate successfully that your ideas are the right ones, and if followed out the desired object will be attained. Nothing but long years of experience would have induced me to come forward and offer my advice, were it not for the hope that I might benefit some of those less experienced than myself, and thereby help them avoid some of the common errors so many fall into for lack of something to go on and a little horse sense. A celebrated painter, whose pictures were renowned for the brilliancy of their coloring, was once asked what he mixed his colors with? His answer was, "With brains, my dear sir!" Now, it takes brains to raise good horses on a paying basis, as it does in any other line of business, only more so. To start with, remember, if you can't raise a good horse, don't raise one at all. Poor ones don't pay. I am assuming that it is the farmer I am talking with, for nobody else can raise a horse so economically, and mares kept solely for the purpose of raising colts, unless of some valuable breed, cannot be profitable, and even then it is doubtful if they can be.

To be profitable, the average brood mare must work for her living and incidentally raise a colt as well. On the proper selection of sire and dam depends much of your success, and too great stress cannot be laid upon this, for not only do hereditary unsoundnesses, like spavin, curb, ringbone, defective eyesight, sidebone, string-halt, etc., crop out, but other and less objectionable defects, such as calf-knees, low backs, stilty pasterns, sickle hocks, etc., are reproduced with almost absolute certainty. Then, how important it is to be particular in the choice of not only a sound sire and dam, but those of good individuality and free from such weak points as stated above!

To breed a good saddle horse, it is essential to have an animal with a good head and neck, and shoulders well laid back, so that (as the old adage has it) when in the saddle you have a good half of the horse in front of you. He should be "breedy" in appearance, and have a stout back and loin, with clean, cordy limbs, and good open feet. To obtain such, there is no doubt whatever that a good-sized, stoutly-built Thoroughbred stallion is the one to use on mares with substance and quality combined, but with as little cold or "carty" blood in their composition as possible, although some breeders do not object to it, arguing that they cannot get bone and size enough for weight-carrying without it.

What is wanted most in a harness horse is high action, and therefore we should keep that in mind above everything else. Again, I would advise utilizing mares of good breeding—that is, not mixed with draft blood—good, sound individuals, largely of Thoroughbred or trotting blood, the latter to be smooth and shapely, and not of the rough-hipped, ewe-necked order, but with substance and quality, and such can be found without great difficulty. Breed these to the best Hackney stallion available, and you will come nearer getting a good salable harness horse every time than in any other way I know of. The Hackney is the only breed in which action is hereditary, and, in addition, you obtain a smooth, well-rounded form, well-sprung ribs, short back, and easy, jaunty carriage, which, when coupled with a good disposition and high action, will sell most any horse at a good remunerative price. No horse is as easily kept, and this is quite an item to most farmers. Then, he is easily broken, and can earn his own rations after he is three years old, and when old enough to sell can always find a ready purchaser. The Hackney, to my mind, is the most valuable of all horses to breed to, and I know from experience that he gets what is in greatest demand—a nice, stylish, substantial, sensible horse, with good looks and good action, and fewer poor ones than any other breed.

Wyoming Co., N. Y. JOHN WYLLIE.

Maxims for Sheep Feeders.

Give the fattening sheep regular and quiet attention, an abundance of pure water, and plenty of salt where they can take it at will. Corn and clover hay makes an excellent ration for lambs and sheep. If roots of some kind are plentiful, they will be found a valuable help. Should clover hay be scarce or high, by using a little care other coarse fodders may be substituted, such as cornstalks, millet hay, oat straw, and bean straw. A lamb should gain on an average at least two pounds per week while on full feed. He will consume from one and one-fourth to two pounds of grain per day when on full feed, and when a lamb receives this ration he generally consumes about one pound of clover hay or other fodder per day. The length of the fattening period may vary from twelve to sixteen weeks.

Brant Co., Ont. FRED REED.

Township vs. County Shows.

As far as my experience and observation have gone, I think the county or district show has not been a success. In several instances I could name, the attendance both of exhibitors and visitors have gradually grown less year by year. On the other hand, the township show seems to have received a fresh impetus, and has been better attended, and in some instances has eclipsed the district show. A good many farmers seem to have a decided preference for the township show, and express themselves, when speaking of it, as "our show," thereby creating a wholesome rivalry amongst those who would not think of exhibiting at the county show.

I do not think it would be wise or beneficial to restrict the competition to the residents of the township; think the restriction would not tend to broaden the views or be a stimulus to the breeding or producing better products for exhibit and use; nor would it be satisfactory to those who breed improved stock, as the exhibition of such at fall fairs is a medium of advertisement; think perhaps the amalgamation of two townships in some localities would be a benefit to all concerned.

With regard to speeding in the ring, I think that no government grant should be given in this direction any farther than it applies to that which is necessary for the testing, in their various gaits in the different classes, of agricultural horses; other attractions in this direction should have no claim on the agricultural societies, as the tendency is demoralizing, instead of instructive and uplifting, which should be the aim of all our agricultural societies.

I think quite an interest may be created by giving prizes for the best groomed and harnessed team, best broken team, best walking team, best heavy draft team suitable for exportation, etc.

In getting up the prize list, think the best prizes should be offered for stock, and of that kind which would be most likely to benefit the township or locality in which the show is held, and that no exhibitor should receive more than one prize in any one section of a class, as where a man who has a good herd of cattle or flock of sheep, if allowed, would perhaps take all the prizes in the class (which he may rightly deserve), but the tendency would be to prevent those who have not been so enterprising as himself from exhibiting at all, and thus the society would fail in the object it should have, viz., to stimulate that class of farmers to come out and compete for prizes. Perhaps, at first sight, this may seem to be an injustice to the enterprising breeder, as he may exhibit animals that are far superior to his neighbor's second-prize animal, yet when the rules are understood, it will be calculated to do the "greatest good to the greatest number."

Bruce Co., Ont. HENRY ARKELL.

Early Shearing of Sheep.

Successful sheep breeders we believe as a rule shear their last year's lambs during the month of March or early in April. The sheep suffer from the heat in the warm spring days if forced to carry their heavy coats of wool, and especially so if they are infested with ticks. There is practically no risk to the health of the sheep to shear them on a fine day in March if they are kept in a closed building for a few days afterwards. In the course of a couple of weeks after shearing they should be dipped to clean them of all lice and ticks and to clean their skins. Even if there are no indications of the presence of parasites, the dipping will more than repay the cost by the improved health of the sheep and increased growth of the wool. Ewes that are not due to lamb till May might also be sheared with advantage if in good condition. Thin ewes that are nursing lambs should not be sheared before the warm weather comes, but if lambs have come in March, and the ewes are in good condition, the ewes they may be sheared any time after the middle of April, and if ewes and lambs are dipped soon after it will be better for both. The only reasonable objection to early shearing, especially in the case of the yearling sheep, is the undue discrimination made by buyers against unwashed wool, but if a sale can be made at a reduction of one-third from the price of washed wool, we feel sure it is more profitable, on the whole, to shear the sheep unwashed. The rapid improvement in condition and increased growth of wool will more than make up for the difference in the price received for the fleece.

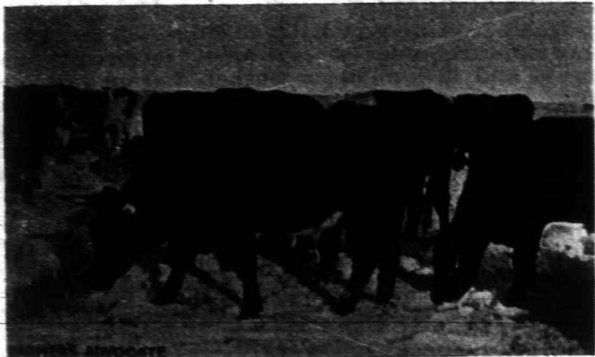
Something for Nothing.

The *Exporter*, of Montreal, devotes a vigorous article to the absurd application of an English firm, Campbell, Shearer & Co., to the Quebec Legislature for a bonus or gift of \$20,000 per year for twenty years to enable them to start a packing-house for cattle, sheep and hogs, and also for the purchase of cheese, butter, and other farm produce, for which English prices are to be paid, less the cost of handling. As the country is already well supplied with packing establishments, developed by private enterprise, and the existing competition for dairy products exceedingly keen and prices high, strong opposition has developed against this scheme to bonus outsiders with public funds to come in and compete with Canadians. It is very pertinent asked, if these people have faith in the success of their project, why are they not prepared to carry it on with their own money, and build up a trade for themselves in honest competition? Strong protests are going in to the Quebec Government against the proposal.

Beef in the West.

SPECIAL CORRESPONDENCE TO THE FARMER'S ADVOCATE, BY J. M'CAIG, ONTARIO.

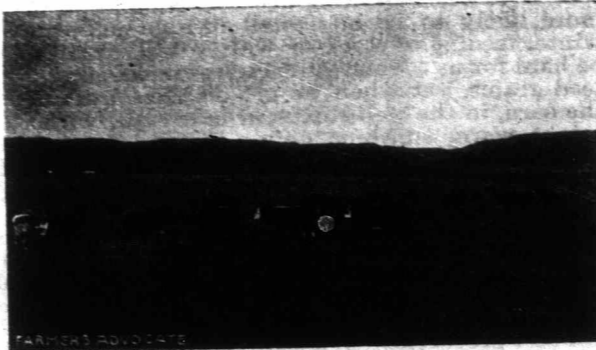
Men who have never lived in any other than temperate latitudes do not sufficiently value their heritage and condition. They are free from the constant cold that brings mental torpor and want of ambition, besides dwarfing their stature, and free from the enervating influence of constant heat and from the tendency to indolent habits induced by living in a moist tropical climate where production is spontaneous and perennial. The temperate zone is productive; but only so under the diligence of man. Moreover, this diligence is a necessity from another cause, namely, that the sealing up of the productivity of nature during a half of the year implies diligence and foresight during the remaining half to meet the necessities of existence. So industry is an essential quality of the men of this climate. That the people of the temperate climate are progressive is borne out by history and experience, for the foremost people of the world in art, industry, commerce, and war, are the people of the middle zones, not those of the tropical or polar regions. This is a matter of climate and soil and of the now inherent mental and physical attributes of the races sprung from such areas.



ALBERTA RANGE CATTLE IN WINTER CONDITION.

As an adjunct to the productivity of the land in the way of cereal foods, the temperate zone has an illimitable wealth of fish, flesh and fowl of the useful classes. The food fishes are largely confined to our zone. Our game is the best in the world, and our capacity for the production of meat animals from the domestic classes unsurpassed on the globe. Canada is not behind, but rather ahead of most other temperate countries in these peculiar advantages. Her beef is no worse than her wheat, and her wheat is the best in the world. Canada has stores of strong food for strong men and to spare for the tables of industrial England. Besides, we live under institutions that do not clog, but rather make possible and encourage the highest freedom, the greatest energy and the most complete self-realization for the individuals composing the banner British colony. Under these circumstances, it is not strange that the great western country should show a very rapid and energetic development peculiar to itself under the hands of versatile and busy people.

Beef is King in the West.—In the East we cannot pin our faith to a single product. Lands are high, competition more or less intense, and the pro-



ON THE RANGE, ALBERTA, CANADA.

duction of as many and as varied products as possible is recognized to be the wisest course for the average farmer. Similarly, it is due to special conditions that beef is the important product of the Northwest Territories. It must not be supposed that there are not vast areas in the Northwest Territories suitable for agriculture; there are plenty of such lands. The larger areas, however, are ranching lands, and ranching is the characteristic industry. The principal ranch lands are on the eastern side of the Rockies and along the southern part, while the agricultural lands are those parts of Saskatchewan and Assiniboia nearest to Manitoba, and generally resembling it, besides northern Alberta and northerly stretches right up to the Rockies.

The southern parts of the Territories are prairie country. What determines whether a country is ranching or agricultural is its moisture. Plentiful moisture is necessary for vegetation of the heavier sorts, such as timber, cereals and roots. Moisture from the Pacific is shut off by the Rockies. The moist return trade winds from the south-west precipitate all their moisture on being forced into the higher latitudes of the plateau west of the Rockies,

and though these south-west winds are the prevailing winds for Alberta, they reach us as dry winds. Little moisture comes from the east or south-east, as the long continental stretches covered before they reach us absorb all their moisture. Our rain and snow are from Hudson's Bay, and most of this goes to our northern areas, thus leaving the southern and south-western parts semi-arid. The condition of the ranching country with respect to moisture can best be understood by a comparison with Ontario. In Ontario the annual rainfall is about twenty-eight or thirty inches; in southern Alberta it is about ten or eleven inches.

The prairie country is a most valuable part of the Northwest Territories, though for ultimate national wealth the same area of agricultural land would doubtless be more valuable. It is not so dry as to be of little value, as some of the barren lands of the Missouri farther south are. It yields large quantities of valuable and nutritious grasses of different kinds without effort. On the prairie country the land becomes green at about the first of May with a new growth of grass, the old grass still standing, and by June it is bright in most places with delicate prairie flowers. This month is, perhaps, the height of the season of vegetation. By August the grass is burnt a tawny yellow on the benches and prairie, and greenness remains later only along the river bottoms or beside the occasional shallow lakes. The appearance of the prairie after the period of spring growth is wholly deceiving to the newcomer. It looks like a sere and barren waste. The grasses, however, are preserved rather than spoiled by the dry weather. Their essence and nutriment are naturally sealed up and remain good until eaten in winter or summer. Hay may be made and saved during any month of the summer or fall.

In southern Alberta housing of cattle is unnecessary, but in the northern parts both sheltering and hay feeding are practiced. Cattle are enabled to "rustle" their living, as the phrase goes here, both summer and winter, because the snowfall is light and is seldom protracted even if heavy. The Chinook winds, which are warm winds coming through the passes of the Rockies, suddenly unseal any condition of frost or hard weather. The snow does not thaw on the ground, but is licked up by these winds. The changes of temperature are very sudden and very violent, sometimes amounting to a variation of 70 degrees in one hour. This will sound improbable to an Easterner. It might be thought, besides, that such rapid changes would be disastrous to man and beast alike, but such is not the case. The extreme dryness of the air prevents any experience of discomfort. An occasional year of hard luck will come, in which, after an exceptionally heavy fall of snow, a partial thaw is followed by hard frost, and a hard crust will seal up even the longest grass. The gathering in of the cattle from long distances to the hay camps is impossible, as they soon become disabled by skinning their legs in the crust. Cases of severe or total losses, however, are rare, but each year means a small but more or less uniform percentage of loss of weak cows or an occasional early calf. As the number of ranchers increases, the tendency to keep up the weak ones and pull them through on hay becomes more common. The increase of Western population makes more help available, and on this account additional attention pays. The encroaching of the smaller ranchers on the ranges of the big outfits is changing the ranching somewhat. More winter feeding is becoming the rule. The cattle are being better looked after, and the percentage of losses is steadily decreasing.

The ranching business offers wide contrast to the cattle business in Ontario, and it might be expected that the beef products of the West would be quite inferior to those of the East. It is one of the great surprises for an Easterner to find that the contrary is the case. The haphazard system when practiced in Ontario results in stunted, poor beasts; in south Alberta, where cattle often complete their third or fourth year without shelter of any kind, they grow right along and are in good condition all the time. It might be thought that the well-fed Eastern steer would at least surpass the Western one. Even this is not the case. Steers sheltered in bank barns in Ontario, well fed for two years and finished on turnips, clover hay and grain for the last five or six months, are not on the average as good as Western steers at the same age and fed on a diet of grass and water from birth to block. The steers here seem to keep well fleshed up on top. They never lose their rib flesh; they grow very lengthy and keep both a straight upper and under line. The steers brought in at one and two years old from Ontario and Manitoba, called "dobies" or by some "dogies," are smaller in size than Western cattle at the same age. They are shorter, more podgy in the belly, not as well filled on the crops, hips and upper ribs, and are less symmetrical generally. The Western steer has the full points and ripeness of a pure-bred, with the flesh evenly laid on, not appearing in lumps and patches. He has the grace of a wild animal (he is rather wild), and at the same time seems to have sacrificed none of the fast-growing qualities that are the result of quite an opposed system of culture and feeding to that under which he is reared here. I saw a bunch of 500 steers that went at one shipment from a ranch out here, mostly three-year-olds, but with an occasional four. A finer lot it would be hard to find. They were not uniform in breeding, but Shorthorn predominated. There were a few fine heavy-fronted, curly-coated Herefords, which make good range cattle; some Galloways, and plump, barrel-shaped Angus; an occasional Highlander, judging by his horns and coat; and one or two raw

FARM.

Texan relics. With the exception of the Texans, all were in fine shape. There was not a poor thriver in the bunch. There was not even a sign of scouring after a journey of fifty miles. They all had fine loose coats, low flanks and thick cuds, showing a uniform finish in condition.

Though sheep do well out here, it seems to me cattle do better. They do not lose, but rather gain, by the change to ranging habits, and it must be understood that they have to range more for food than in Ontario. There can be no definite estimate as to the average area required for range for each animal. Ten acres is said to be as little as will suffice. The grass is not heavy or thick. The stalks are short, and it grows in sparse bunches, rather than a thick turf, though in many places it completely hides the soil. It is called "bunch-grass." An advantage that cattle have over sheep is that they go in small, scattered bunches, while sheep have to graze in bands of two or three thousand. They have to be kept by a shepherd. The cattle are only brought together at the two round-ups each year; one in the spring, to brand the young calves, the other in the fall to cut out the beef.

Range cattle stand transportation much better than stall-fed cattle do. On account of their good muscular condition, due to plenty of exercise, and their hardiness, they do not play out, and arrive at their destination with slight loss of flesh. The beef from them is sweet, juicy, close-grained, tender, and well-mixed. Truly, beef is king in this country.

In beginning, a man usually homesteads a quarter-section, brings in his stock, and lets them go with his brand on. This brand is registered in the Territories and is his exclusive property. Where range is being taken up rapidly, a man usually rents from the Government for a term of years such additional land as he deems necessary to control in the interests of his bunch of cattle. In other cases the cattle are simply turned out and no land is bought or rented. His whole capital is in his stock. A good many young fellows begin by working as cowboys and taking their pay in cattle or earning money while their herd grows. By becoming a member of the Stock Association his cattle are rounded up and branded for him each year. It is not hard to understand how Western men can buy Ontario yearlings, pay high freight on them and make money, when range is so easy. The price for good threes during the past season has run from about forty to forty-six dollars. Cattle are generally sold by the head, not by weight.

Calf Raising.

To raise a good calf, commence by using the very best bull available. Continue by feeding your cows through the winter, instead of "scratching" them through at a straw stack. Take the calf away as soon as dropped, and neither cow or calf will fret (if cold weather, I let the cow lick the calf dry). I feed new milk for from two to three weeks; feed three times a day. Feed skim middle of day till calves drink it well, and then drop whole milk for skimmed. Use boiled flaxseed for supplementary feed, starting with very little and increasing to about a pint of the jelly in each feed. That is the system, but I think I had better mention the rocks one has to steer clear of to raise a good steer. Never feed sour milk, at all events till calves are 3 months old. Never feed cold milk, or too hot. Look out sharply for any indication of scours, which is the result of too hot or too cold milk, or too much flaxseed on the start. Feed three times a day as long as the calves will come for it, which will be till they are about two months old. The biggest rock of the lot in raising yearlings, is raising good calves in the summer and then letting them go to pieces in the winter. Always have your calves so that you can get hold of a handful of loose hide on their ribs without hurting your finger ends, even in the severest weather, and they will grow all winter; and good shelter, with hay and half a gallon of crushed oats at each end of the day, will do it. Second winter they will do well on straw, if good, and a ration of oat chop. Watch your beast and feed according to its needs, and whilst never letting them go back, don't throw the profits into the manure pile by over-feeding; a handful more to one and a handful less to another, just as they need it. I have one cow that will get fat on half a gallon of crushed oats at each end of the day, and straw; others will take three times that to keep in condition. I always use oats or mixed barley, and oats for crushing, but the judgment exercised in feeding has more to do with condition than the description of feed. I have no separator, having very few stock. I keep more sheep, but intend to increase my dairy to separator size.

ARTHUR C. HAWKINS.

Lorne Municipality, Man.

Feeding Test with Two Steers.

In a feeding experiment at the farm of the Royal Agricultural College of Cirencester, Eng., two Aberdeen-Angus steers fed during the winter a daily ration of 4 lbs. decorticated cotton-seed cake, 6 lbs. maize meal, 18 lbs. hay and chaff, and 15 lbs. roots, gained 14 lbs. per head per week. The cost of a pound of gain was 10.5 cts. Two similar steers fed a daily ration of 7 lbs. linseed cake and 3 lbs. of oatmeal, with the same amount of hay, chaff, and roots as the others, gained 12 lbs. per head per week, the cost of a pound of gain being 15 cts. The dressed carcass in the first lot constituted 60.6 per cent. of the live weight, and in the second 59.3 per cent. The flesh of the first lot was regarded as superior, showing more lean in proportion to fat.

Varieties to Sow and Plant in Eastern Ont.

SIR.—Now is the time farmers should be giving thought to the varieties and quantities of seed required for spring sowing. If our Institute meetings have been made the best use of the last three months, farmers ought to be pretty well posted as to kinds suited to their various localities, but, to my knowledge, very little discussion has taken place on this point, except, perhaps, in the case of fodder corn, etc. Now, what will do well on some soils and in some localities will not succeed in others. In experimenting, I have known potatoes and cereals that were a success elsewhere to lose all their characteristics with me in three years' sowing and planting. In my locality very little wheat is sown, and what little is sown is principally White Fyfe; it seems to do as well as any we have tried. Barley is grown almost entirely for feed. Two kinds are principally grown, namely, Mensury and black or hullless, both giving good satisfaction. Of oats, a great many varieties have been tried, but I think on the whole none have given better satisfaction than the American Banner. I imported a Scotch oat two years ago, known as the Jubilee. It has done very well, and has the good property of standing well, which is quite a consideration with us where oats are very liable to lodge. A measured acre and three-quarters gave me 104 bushels, weighing 41 and 42 pounds per bushel, and on just fair soil. In corn, people here are looking more and more each year for quality, rather than bulk, so that some of the Mammoth corns are not planted as much as formerly. White Cap Yellow Dent does very well with us, and if dealt with carefully as to time of planting, cultivating, etc., gives a good crop of ears for feeding or silage. Quite a number are planting some of the large kinds of sugar corn, such as Perry's Hybrid, with good results, but the soil must be in good condition to produce a big crop. Black Mexican is also a very promising sort here, and will be planted with increasing confidence this coming spring. Of potatoes, the different kinds are legion, many much-praised new sorts being planted one year, to be discarded the next. It would be difficult to name the kind that takes precedence. I still cling to the Early Rose and Beauty of Hebron for a choice table potato. Early New Zealand is also a good cropper, giving very few small tubers. The principal kinds of roots grown here are Danish Improved sugar beet, Giant Yellow or Intermediate mangel, Short White Vosges carrot, and the Champion or Jumbo turnip. In turnips, the Great Mogul I brought from England a few years ago is more thought of the longer we plant it, and has quite a reputation as a table turnip as well as a stock feed. It never grows a neck like some other roots; and has not such a strong taste as some other sorts. I am growing my own seed so far, but hope our seedsmen will soon have it for sale.

Wishing the ADVOCATE (our best agricultural journal) much prosperity, which it much deserves, Glengarry Co., Ont. JAS. H. ESDON.

Selecting Seed Grains.

SOWING MIXED GRAINS.

Just now, when farmers, and, indeed, everybody, all over Canada are more interested in the success of Lord Roberts or General Buller than anything else that can be put in print, and when a farmer does read an article regarding his own occupation he is more likely to be interested in such subjects as winter feeding of stock or winter dairying, it may be hard for us to interest ourselves in the matter of seed grains, yet when we get on the south side of the barn, in the well-sheltered barnyard, with the bright warm sunshine giving life and comfort to every living creature that can come in contact with it, we find ourselves almost involuntarily exclaiming, How very springlike it is!

So that when we think that in six or eight weeks we will be in the midst of seeding, we begin to realize that it is time to consider what we will sow, and if we have not the sort of seed which we want to sow, we must be looking around to see where we can best procure it. We have not raised very much wheat in this section the past two or three seasons, as flour has been low; and as our marshes, or dyked lands, produce almost unlimited quantities of hay, we find it more profitable to raise the coarser grains and roots for feeding cattle, and buy our flour. Our own practice has been to sow barley, oats and peas mixed, sowing 2 bushels of Banner oats, 1 bushel of Duckbill barley, and ½ bushel of Prince Albert peas. This mixture gave us a yield of 55 bushels per acre of grain weighing 47 pounds to the bushel.

Where wheat is sown, the White Russian seems to be a general favorite and reliable cropper. The Banner oat has done well with us for some time, and it is hard for us to believe there is any better.

We are sowing more clover than we did a few years ago. Our practice now is to sow clover seed (common red) with oats, cut the clover for hay the next year and plow under the aftermath for roots; after roots, we sow mixed grains or wheat seeded with 10 lbs. timothy, 4 lbs. Mammoth red clover and 2 lbs. Alsike; we then take two crops of hay, pasture one or two years, and begin again with oats. We find clover the best fodder we raise for milking cows, or sheep, or, in fact, almost everything except horses.

Wishing the ADVOCATE every success in the good work it is engaged in, and congratulating you upon the magnificent Christmas number of 1890, Cumberland Co., N. S. C. HOWARD BLACK.

Grains that Do Well in Perth Co., Ont.

Speaking for this particular part of the southern township of Perth Co., there has been comparatively little attention paid to new varieties of spring grains, popular attention being directed more to selection in fall wheat and potatoes.

Peas.—Owing to unfavorable meteorological conditions the last few years, and also to the ravages of the pea weevil, the acreage devoted to this crop has been gradually diminishing up till last season, when the phenomenally large returns of both straw and grain will likely result in the unstable class of farmers largely increasing their acreage. Our soil is not now so well suited to growth of peas, most of it being lamentably deficient in humus, warmth, friability. As to varieties, a great many have been tried, the principal being Mummy, Marrowfat, Multipliers, and Golden Vine. The result has been the adoption of medium-sized, white varieties, such as the Golden Vine, as producing a shorter, finer straw, and less liability to splitting in threshing. The most satisfactory method of seeding is on inverted, well-drained sod, spring or fall plowed, as is most convenient, but generally the former, and in such cases depth receives less consideration. Early sowing is usually practiced, as most farmers say that with early seeding "if we get the bug we have peas with it, but with late sowing we get neither."

Wheat.—As a general cropspring wheat has been given up entirely, except the Wild Goose variety, which is quite extensively grown, and with careful nursing compares favorably with fall wheat in yield and generally in price. It, however, requires careful cultivation and favorable temperatures to insure a good yield. It generally does well on unplowed root land worked to a fine tilth. But, like all spring wheats in this section, it seems to be susceptible to some mysterious influence, whether it be in the climate or soil. I know of one particular case last season where it was sown as usual, and on good rich soil, but failed greatly in yield, being much less than that of other sorts near by. Spring wheat used to be a sure crop with us, and we would be pleased to have a possible explanation for its continued failure since the land was cleared.

Oats are most extensively grown of all our grain crops, being a pretty sure crop for all kinds and conditions of soil, easy to sow, harvest, and furnishing nutritious straw and grain that composes part of the ration for all herbivorous animals, man included. Of all varieties, the Banner seems to hold its own the longest. It is a heavy weight, with short, stout straw. The Egyptian had quite a run, but was forced out on account of length of straw and excess of hull, producing light weight. The Joannette had its innings, but black oats are not much in favor, and, besides, the soil must be rich or the straw would be very short and consequently hard to harvest with the binder. The Siberian is being tried, but, besides being somewhat late, is supposed to be weak in the straw, and has strong competitors in the White Russian and Golden Prolific. These three latter are still in the experimental stage here and cannot be intelligently compared with the Banner. On one farm where the White Russian and Siberian were grown, the former was preferred on account of being somewhat earlier and giving greater weight per bushel, but as to whether the comparison was sufficiently accurate or not, I am not prepared to say. As to sowing, oats have to take the worst chance. They are usually put on fall-plowed land after some grain crop—as barley. The land is usually cultivated lightly in spring, worked moderately fine and the oats broadcasted, especially if the soil is not very dry, which is usually the case, as oats are the first grain sown. Even "puddling" them in will usually insure a good crop on our land, which is mostly clay loam. They are often put on inverted sod, but the former method is preferred; especially if the sod land be light, dry, or poor, they are liable to suffer from drought and ravages of cutworm. On a light, dry soil, drilling is preferred to broadcasting.

Barley.—Of barley, the Mandschouri is the general favorite among the hulled varieties, being a good yielder and weigher, and stands up well. We have not had much success with beardless barley, and it is not being used to any noticeable extent. Hullless barley is often sown for pigs and gives good satisfaction, but requires nearly as careful cultivation as wheat, and perhaps it is due to this fact and uncertainty of sure crop that it has not come into more general use. Our best farmers aim to have it come after roots or other cleaning crop, unplowed in fall, and worked fine and shallow in spring. A firm seed-bed is considered important. Sown the last of the grains, when the land is dry and friable, seldom broadcasted, and always rolled if weather is favorable, as is common practice with all our spring grains, although I think it should be lightly harrowed after to conserve moisture.

J. H. B.

Both Handsome and Useful.

To the Editors FARMER'S ADVOCATE:

GENTLEMEN,—The premium Bible and Folio duly received, for which accept thanks. The Bible is a very handsome one, and contains so much information of value to any Bible student. The Folio is a very complete and useful contrivance for preserving copies of ADVOCATE for future reference. I have been in the habit of binding them each year with a strong cord and putting on a strong paper cover, but this beats it all out. I hope to be able to send you a few more subscribers.

Huntingdon Co., P. Q.

Yours truly, W. F. STEPHEN.

Seed Grain.

To the Editor FARMER'S ADVOCATE:

SIR,—In response to your solicitation to the readers of the FARMER'S ADVOCATE, in February 15 number, to give their experience and what may have come under their observation along the line of seed grain, I herewith submit the following: It is too true that a great many farmers do not seem to realize the importance that this question demands, of not only sowing clean and well-matured seed, but also sowing varieties that are adapted to their respective localities and surroundings, such as soil, etc. That the same variety of any grain does not give the same results in every locality and every

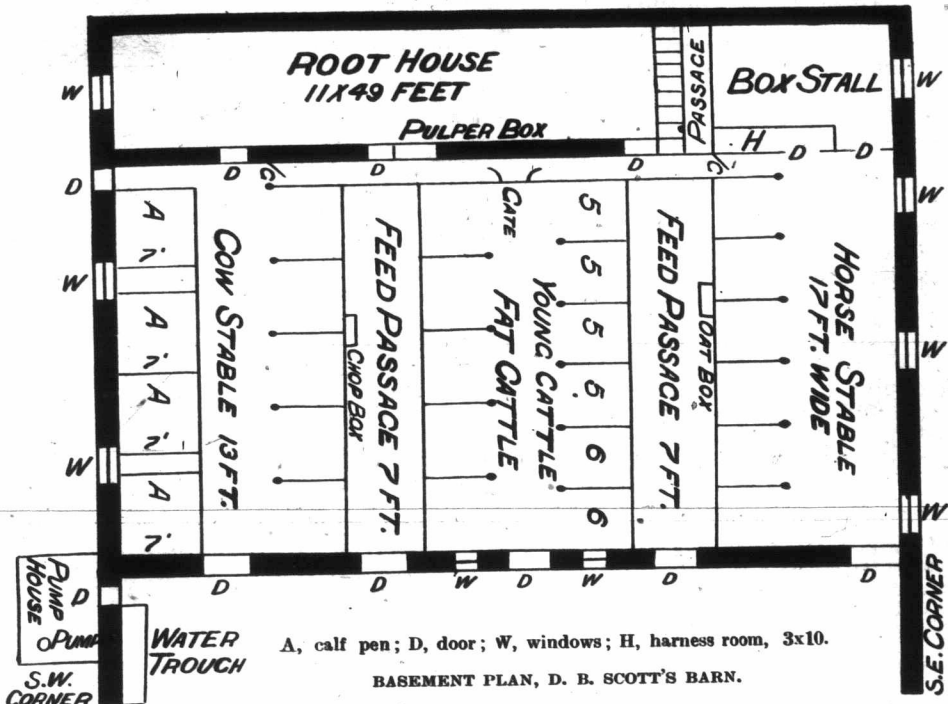
Best Varieties of Corn.

To the Editor FARMER'S ADVOCATE:

SIR,—Within recent years perhaps no subject connected with agriculture has received so much attention as the growing of corn. As a food factor it is now looked upon as one of the most valuable aids to the farmers, nearly all of whom now aim at growing a patch of corn. Enough has been said and written with regard to preparing the land, planting, cultivating, harvesting, silage, feeding, etc., to fill volumes, but, sir, to my mind, one very important phase has been left entirely in the background. That is the varieties of corn that will produce the best results in the different localities and on the different soils. Even our experimentalists keep shy of this phase of the

A Good Barn for Beef Raising.

According to request, I send you the plan and description of my barn, which was erected last summer. It is intended for a 100-acre farm, all working land, and we consider it quite sufficient for even a larger farm. It is 76 by 64 feet, and is none too long for the stabling below. If it was two feet longer it would be better, as it would give more room behind the cows; that is the only fault we see about it below. The barn is built of good material, and stands on a stone wall 10 feet high. The timber is all sawed, which gives it a fine appearance inside. The outside posts are 18 feet long, main posts 26 feet long, timber posts and beams 10x10 inches. Main part of barn 36 feet, with 14 feet to back over root-house, and 14 feet in front for shed over stable doors. It is covered in with first-class pine lumber and cedar shingles on the roof. All the bays are double-boarded above the stabling, drive floors the same with plank and inch boards, which prevents steam from ascending and spoiling the hay or grain. The granary is 21 by 22 feet, finished with dressed lumber, and maple flooring in the passage, which is 7 1/2 feet wide, which gives ample room for cleaning the grain beside the bins. The face boards of the bins are rounded on the ends, which makes them much easier to put in and take out. The mow beside the granary is scaffolded 8 feet high, also the 14-foot drive floor, to hold chaff below, which is very convenient. The rest of the front mow is used for storing straw. There are no divisions between drive floors and mows. All chutes or trapdoors are covered with caps, and the doors are hung at the top with hinges, so that when you open them they swing back from the bottom into the bay, where they are caught by a wooden spring. Their own weight keeps them shut, as they are hung four inches from the perpendicular inwards when closed, and can easily be opened and shut with a fork. This is a safe arrangement, as no one can fall through a trapdoor of this description. There is a slide on one of the chutes with a flap on hinges, that turns up or down like the double feed, so that you can either put straw into the passage or into the stable for bedding by the same chute. There are two chutes at each feed passage, so they can be used for different purposes, the one for hay, the other for straw or chaff. A spout from the granary conveys the oats to the bin below, also chop descends in the same way to the chop box.



Basement Plan, D. B. Scott's Barn.

kind of soil has been shown conclusively by the published reports of tests carried on at the various Experimental Stations established in the Dominion; in fact, there is quite a difference in the results of those at Guelph and Ottawa. Also, farmers who live quite adjacent to me tell me that varieties that have proved a success with me have not proved as great a success with them; and herein is what I think to be the great value of the experimental stations to the farmers. At these stations more varieties can be tested, and with greater accuracy, than by individual farmers. I may say, in our locality the varieties of grain principally grown are fall wheat, peas, and oats, a few growing a little spring wheat, and most growing some barley and principally for feed for their own use.

Spring Wheat.—Of the little grown, it is mainly of the Colorado variety, Wild Goose, and some other varieties. With me, the Wild Goose did not prove the success it should have done. This season I intend to sow a small area of one of the varieties sent out by the Ottawa station—Wellman's Fyfe, I think, is the name—which proved a success with a friend near Clifford, Ont.

Peas.—About the only variety of peas grown is the Golden Vine or Multiplier. Some farmers report having 50 bushels per acre the last season, and so far the pea bug has done little or no damage to this crop.

Oats.—Siberian and Banner are the principal varieties grown. My own experience has proven that the Siberian is the better of the two in the last two seasons. Some farmers complain that the Siberian is more subject to rust than the Banner.

Barley.—Mensury and the common Six-rowed are the varieties mainly grown, but rather more of the former, for the reason that this variety usually produces more straw and grain per acre. So far as I am aware, another Russian variety, known as the Mandshchuri, has not been tried to any extent in this section. I think that from the tests made at Guelph this is the better variety. It is not because barley cannot be grown successfully in this locality that so small an acreage is sown, but for the reason of the low prices of this cereal that has prevailed for some years in the past. I think more should be grown. Prices are advancing, and not for this reason only, but as a feed product I think it is profitable.

Cultivation and Seeding.—The soil in my own immediate vicinity is mostly a clay loam, with a porous clay gravel or gravel subsoil. The methods of cultivation mainly followed are twin- or gang-plowing in the early fall, followed by a good harrowing, followed later on by a single plowing. In the spring a seed-bed is made with a disk or spring-tooth harrow, levelled and made fine with the iron harrow, and seed sown with the seed drill. It is quite common to plow again in the spring with the twin or single plow, harrow with the iron harrows, and then sow with the seed drill, and roll.

Bruce Co., Ont.

JAS. TOLTON.

silage, as well as fodder corn, has proved to be one of the most useful as well as the cheapest foods a farmer can produce, the question of obtaining a variety of seed suited to the different sections is of the greatest importance, and would mean a great addition to the crop each season; in fact, in many instances it would mean the difference between a good crop and no crop at all. Let us, then, have more light on this phase of the corn question.

In the middle section, at least, some care should be exercised in selecting the corn patch. A field with a southern slope may mean considerable. If not underdrained, see that it has a good natural drainage. Do not plant where the patch may be shaded a part of the day from the sun by woods or hills. No matter how rich the land may be, it should have a stimulant before planting corn in the spring.

To prevent crows, as well as barnyard fowls, from destroying the seed, as well as the young plants, moisten the seed, immediately before planting, with coal oil. A two-ounce vial is sufficient for a bushel of seed. I have used this for nine years and never had it fail.

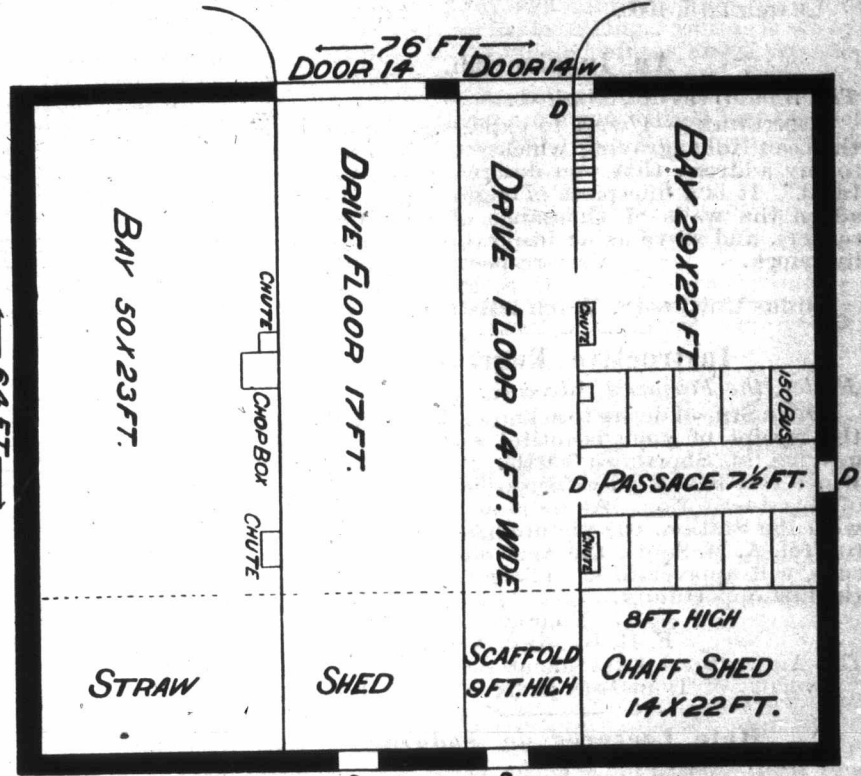
DONALD ROBERTSON, Bruce Co., Ont.

[ED. NOTE.—Comparative tests of varieties of silage corn have been made on the Guelph College Farm and over the Province of Ontario in connection with the Experimental Union for many years, reports of which have appeared in the columns of the FARMER'S ADVOCATE. The report of last year's tests appeared in our Jan. 1st, 1900, issue, page 11, and reads as follows: "The tests that have been conducted by the Union the past year show Mammoth Cuban and Mastodon Dent to be best adapted for Southern Ontario, Wisconsin Earliest White Dent for central, and Salzer's North Dakota and King Philip for central and more northern districts."]

Engineer of Highways and Colonization.

Mr. A. W. Campbell, Ontario Provincial Road Instructor, has recently had the title of Provincial Engineer of Highways and Colonization Roads bestowed upon him by the Government, and in addition to his present duties he will henceforward have supervision of plans and specifications relating to colonization roads. His office has been attached to the Public Works Department.

The wall below is built so that there is the greatest amount of space possible for stabling. The front wall is all in the shed, with the exception of five inches, and the root-house wall is all in the root-house but five inches, leaving a space of 35 feet 2 inches inside for stabling. So the main posts of the barn stand partly on the wall and partly on the sleepers or joists. The height from floor to joists is 9 feet. The floors, as well as the bottoms of all the mangers, are cement, finished with one inch of Portland cement on top. Horse stalls are plank above the cement. The ventilation system consists of 3-inch drain tile passing through the top of



Upper Floor, D. B. Scott's Barn.

the walls at intervals. We are of the opinion that this is not sufficient when the stables are full of stock. We can obtain more ventilation by opening the chutes partly, but this plan has two objections, filling your barn with steam and also allowing the cold air to blow down, causing a draft below. We would prefer some system of ventilating by wooden pipes as a help to the tile, at least one at each end of the stabling, going up say 20 feet, and going out at the end of the barn, and protected in such a way that the rain would not descend in it, and it would also help it if it were larger at the bottom than the upper end. There is no place where a ventilator would be of more service than from the cap that covers the stair that ascends to the barn; this being

the highest part, the steam always rises there, and a pipe ventilator here would not let the wind blow down the same as if the door was left slightly open.

"Canada's Ideal" an Object Lesson.

The Farmer's Advocate, London, Canada: GENTLEMEN,—I beg to acknowledge receipt of a copy of your picture of noted Shorthorns, entitled "Canada's Ideal."

An Inspiration.

The Wm. Weld Co., Limited: GENTLEMEN,—I wish to express my thanks for the beautiful engraving which you have forwarded to my address, that you designate as "Canada's Ideal."

Instructive Engraving.

Editor, the Farmer's Advocate: DEAR SIR,—I desire to acknowledge, with thanks, the receipt of your beautiful and instructive engraving of Shorthorn cattle, "Canada's Ideal," which you have kindly forwarded to Prof. Watts, of this Institution.

Help Lectures on Judging.

The William Weld Co., Limited: GENTLEMEN,—I have before me a copy of your "Canada's Ideal," a superb picture. I am also advised that you have three companions to this "Canada's Ideal."

Creditable Piece of Work.

Editor, the Farmer's Advocate: DEAR SIR,—The Secretary desires me to acknowledge, with thanks, the receipt from you of a copy of a fine picture of twelve notable Shorthorns. He is much pleased with it, and congratulates you on your enterprise in publishing so creditable a piece of work.

Relative Standing of Varieties of Grain and Indian Corn in the Various Provinces of Canada.

One of the chief undertakings at the various Provincial Experimental Farms, under the direction of Prof. Wm. Saunders, is to conduct tests of varieties of crops side by side in plots, with the object of gaining information as to their relative productiveness and earliness in ripening.

Table with columns: Name of Variety, Ottawa, Ont., Nappan, N. S., Brandon, Man., Indian Head, N.W.T., Agassiz, B. C., Average of all Farms, Average days on all farms from sowing to harvest.

Table with columns: NAME OF VARIETY, OHTAWA, ONT., NAPPAN, N. S., BRANDON, MAN., INDIAN HEAD, N.W.T., AGASSIZ, B. C., AVERAGE OF ALL FARMS.

EXPERIMENTAL UNION REPORT. The results of experiments with leading varieties of grains, roots, grasses, fodders, etc., conducted on farms throughout Ontario, under the direction of the Experimental Union, having its central office and distributing point at the Guelph Experimental Farm, appeared in our January 1st, 1900, issue, together with discussion concerning them by members of the "Union" at their annual meeting.

More Information Re Grass Peas. For further information for D. B., of Hastings Co., would say, two years ago I was looking for the same information as D. B. is now, about grass peas. I concluded we would have to try some variety that the bugs did not attack, or cease sowing peas.

Beef Rings as They Are Conducted. In our March 1st issue a subscriber asks us to publish a chart as a guide in cutting up beef into roasts and boiling pieces. This we give herewith, according to the system adopted by some of the beef rings, of which there are so many running in various parts of the country.

DAIRY.

As Farmers, Let Us Learn from Each Other.

MR. G. C. CREELMAN, SUPERINTENDENT OF FARMERS' INSTITUTES, VISITS SOME PROGRESSIVE SECTIONS OF ONTARIO.

There is no class of people in Ontario so diffident about exchanging ideas in reference to their own business as the farmers. From the farms come many of the very brightest professional men of our cities and towns. Their splendid constitutions, which enable them to do such hard mental work, have been given to them by healthy, hard-working parents, and the daily life spent on the farm up to the time they enter college or business helps to develop and strengthen their physiques, until they are able to stand almost any amount of work. The professional man, however, does not expect to have to work out every detail of his business for himself. Every day he has recourse to the experiences of others in the same walk of life, and by reading, observation and conversation he secures information that enables him to avoid very many mistakes.

In the profession of agriculture many causes have tended to prevent such intercourse among its members. In the country, houses are necessarily far apart, and so much of the manual labor has to be performed by the proprietor himself that he has little time to devote during the busy months to the discussion of matters pertaining to his business. In the winter time, however, he has plenty of leisure time, and now that the land is not as rich as it was, and a great many industries are growing up around him, he is beginning to think more and consult prosperous neighbors in reference to things that will help him in his work.

The Farmers' Institutes have come as a boon to the thinking farmers of Ontario, and the present season has seen more interest taken and more enthusiasm manifested than ever before. The delegates who are sent out to every county from the Department of Agriculture of the Province are in every case men who have been successful in their own lines at home.

They deliver addresses and take part in the discussions of practical subjects relating particularly to the industries carried on in their vicinity.

Probably no branch of agriculture has made greater strides during the last ten years than that of dairying. The statistics of 1899 show that the farmers of Ontario were paid in cash for their milk sent to cheese factories alone, \$8,500,000. Mr. J. S. Woodward, Lockport, N. Y., in speaking on Dairying to the farmers of Norfolk County, said: "You are standing in your own light when you have your cows come in fresh in the spring. Butter is always a better price in the fall and winter, and if you keep your stables warm and feed silage and roots, you supply much the same conditions to the cows as they have in summer, and you will get just as much milk. The water supply," said Mr. Woodward, "is

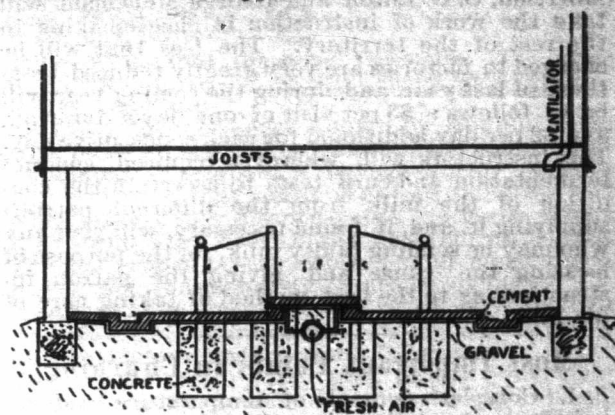


FIG. II.—CROSS SECTION OF BASEMENT, SHOWING USHER'S VENTILATION SYSTEM.

also very important, and to get the best results the cows must have constant access to good pure water in the stables. I have seen," said Mr. Woodward, "cows get up and take a few mouthfuls of water and lie down again. This is to moisten their food and assist the natural digestive liquids in preparing the food for assimilation. When cows receive water but once a day, they take too great a quantity, the result being the food in the stomach is diluted too much. Milk at best," said Mr. Woodward, "is 87% water, and I do not know of any cheaper food that can be supplied." Continuing, Mr. Woodward said: "If I were asked what are the corner-stones to success in dairying, I would say: (1) Proper housing, which means plenty of air space, and warm buildings. The best dairymen now agree that it does not pay to turn the cows out in the cold, and the old theory that cows must plow around in the snow and break the ice to get a drink in order to be healthy is completely overthrown. (2) Stables must be well ventilated." In explanation of this, Mr. Woodward said that he did not mean there should be boards left off the stable and the wind allowed to blow in on the cattle in order to supply fresh air.

	A's beef	B's beef	C's beef	D's beef	E's beef	F's beef	G's beef	H's beef	I's beef	J's beef	K's beef	L's beef	M's beef	N's beef	O's beef	P's beef
2. Front shank and rump, No. 2	1 A	26														
3. Neck and rump, No. 1	2 B	25														
4. Flank and roast, No. 2	3 C	27														
5. Shoulder and roast, No. 4	4 D	30														
6. Hind shank and roast, No. 3	5 E	28														
7. Second rib and roast, No. 1	6 F	29														
8. First rib cut and sirloin	7 G	25														
1. Brisket and roast, No. 5	8 H	27														
2. Front shank and rump, No. 2	9 I	26														
3. Neck and rump, No. 1	10 J	28														
4. Flank and roast, No. 2	11 K	30														
5. Shoulder and roast, No. 4	12 L	28														
6. Hind shank and roast, No. 3	13 M	27														
7. Second rib and roast, No. 1	14 N	31														
8. First rib cut and sirloin	15 O	25														
1. Brisket and roast, No. 5	16 P	27														
		411														

This table represents the way in which the beef is to be divided and weighed out to each person. The diagram represents A's beef being slaughtered and weighed out to the men composing the ring. No. 1 cut goes to No. 1 man the first week, to No. 2 man the second week, and to No. 3 man the third week, etc. This is done by moving the long list of cuts (at the left edge of time-table) down one space for every beef that is slaughtered, which changes the cut for each man. This slip is let down week after week until No. 2 comes opposite No. 1 man, then No. 1 cut is placed opposite No. 1 man again, as all the cuts in one half of the beef is contained in the first eight numbers, and the other half of the beef has the same cuts in it.

There are a number of details which each ring can work out to suit themselves according to their own circumstances. The secretary may furnish tickets with numbers on, which the members draw from a box, to decide the order in which they are to supply the animals. He also sends at the close of the season the butcher's account to each member of the weight of his beast, the quantity he has received, and what he owes or is due him, as the case may be.

CUTTING UP BEEF.

Fig. 1. Represents one-half of beef lying on the table ready for the saw. Before letting this half down divide it in the middle by running a saw across at "a" between roasts 4 and 5, leaving two ribs on hind quarter. After laying both quarters on the table divide fore quarter at line "b".

No. 3. Represents neck. Saw neck off, leaving three joints on it.

No. 1. Represents roast No. 1. Saw roast No. 1 off, leaving three joints on it.

No. 2. Represents roast No. 2. Saw roast No. 2 off, leaving three joints on it.

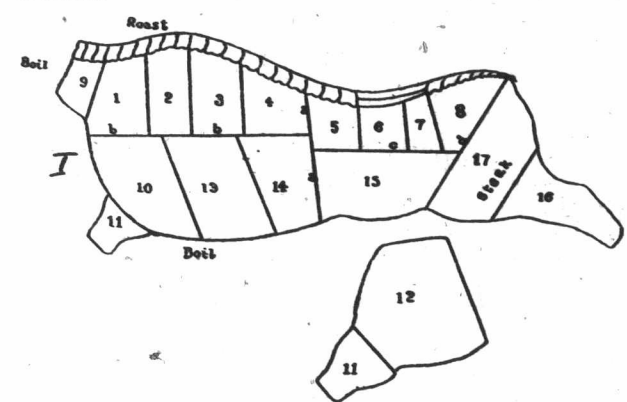
No. 3. Represents roast No. 3. Saw roast No. 3 off, leaving three joints on it.

No. 4. Represents roast No. 4. Saw roast No. 4 off, leaving four joints on it.

No. 11. Represents front shank. Saw front shank off above upper joint.

No. 14. Represents second rib cut. Saw it off, leaving five ribs on it.

No. 13. Represents first rib cut. Saw it off, leaving four ribs on it.



No. 10. Represents brisket.

No. 12. Represents shoulder, which lies directly under brisket as represented in Fig. 1.

Then take the hind quarter and divide it at line "d."

No. 15. Represents flank. Cut flank off at line "c."

No. 5. Represents roast No. 5. Saw roast No. 5 off, with three joints on it.

Nos. 6, 7 and 8. Represents sirloin, rump No. 2 and rump No. 1, respectively. Divide these three as near to the same weight as possible.

No. 17. Represents steak. Cut steak into slices, giving a slice to each person.

No. 16. Represents hind shank after steak is taken off.

After this half of the beef has been cut up it is divided between the first eight persons, as shown by time-table, giving each person a roast, a boil piece, and a slice of steak. Then the other half of beef is taken down and cut up in the same manner.

Sugar Beet Growing Trials in Britain.

At a recent meeting of the Sugar Beet Committee of the Central Chamber of Agriculture it was decided to make arrangements for a series of not less than 20 experiments in the growth of sugar beet in different parts of Great Britain and Ireland during the forthcoming season. As in certain cases previous experiments have demonstrated the value of sugar beet for the feeding of stock independently of the value of the root for the manufacture of sugar, this point will be especially kept in view in connection with the proposed experiments of the present year.

A New Dog By-law Needed.

In your issues of Jan. 15th and Feb. 15th, I noticed articles entitled "Sheep and Dogs," and would like to see suggestions in other of your issues on the same subject. Something has to be done in

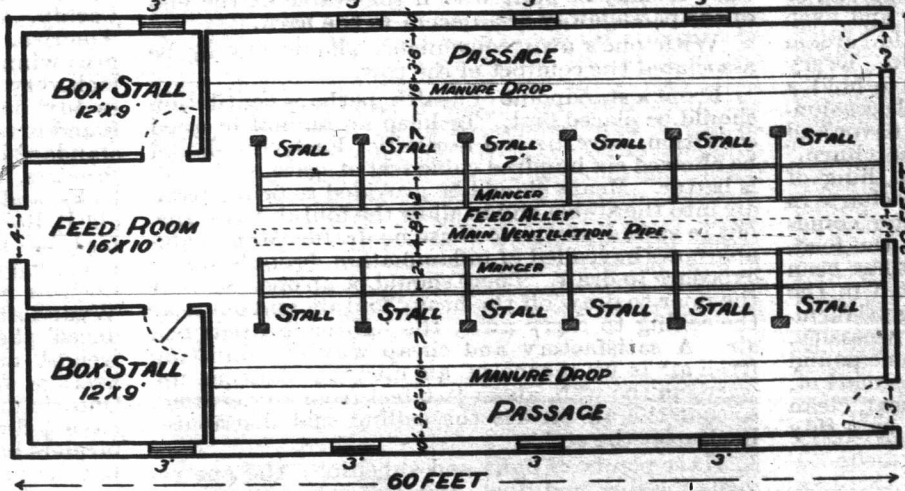


FIG. I.—BASEMENT PLAN COW STABLE, DESIGNED BY MR. ISAAC USHER FOR JOHN SKINNER, THOROLD, ONTARIO.

this country to protect our sheep from dogs. Taxing them at a dollar a head does not get rid of the useless curs that prowl about, and hardly pays for the damages done. Now, in our township of Darlington there are farmers who have given up keeping sheep on account of the dog nuisance. It is very discouraging to get up some morning in the fall of the year and find your flock torn to pieces. The only way we can save our sheep is to get out every night and bring them into the pen. Now, this is a great deal of trouble, because our sheep are divided into three different lots at this season of the year—ewes in one field, ewe lambs in another, and ram lambs in still another field. Now, I would propose that we have a by-law passed by our municipal councils, compelling every dog-owner to secure his dog by night—say, from 6 p. m. to 6 a. m.—either by chain or in a dog-house, under a penalty as provided in by-law; and, if there were any sheep killed on any given night and it could be proved any dog or dogs were not confined that night, to make the owner or owners pay all damages done that night. No person can make sure his dog is innocent, unless properly secured by night. I think well of "W. J. W.'s" idea, in Jan. 15th issue, on a law requiring all dog-owners to put a tag on their dogs (which should be renewed each year), and make it lawful for any person to kill a dog found on his premises without a tag.

Durham County, Ont. S. C. ALLIN.

Barn Plan and Ventilation System Designed by Isaac Usher, Queenston, Ont.

The accompanying plan of barn basement for stock is to accommodate the cattle stock on a 100-acre farm. It is laid out for convenience in feeding as well as economy in space. The disposition of space could be changed to suit others to more advantage; for instance, the platform on which the cows stand could well be less than seven feet, allowing the space gained to go into the passage behind the cows. Otherwise the plan has good points, and no doubt will be copied, especially by those who have old barns from 30 to 34 feet wide they wish to raise up and put basements beneath.

Fig. II. represents the end section of the stable, showing the ventilation system of the stable. The fresh air enters the tile channel at the end of the building. The channel runs through the entire length of the building, beneath the raised feed passage. It is tapped at every cow stall on either side by a gas pipe which opens at the parting boards between the cows. These pipes are covered by the opening with perforated caps, which admits the air by a spray. As the temperature rises in the stable the heated air escapes by the ventilator, thus making room for more fresh air. With this system the doors and windows are kept closed, and the temperature will regulate itself, keeping the air pure at all times. A prominent feature of this system is that the closer the cattle are housed the more actively will the system work, while a uniformity of temperature is maintained.

Nor did he mean that there should simply be openings above the cattle in the barn. "I find too many examples of the latter case in Ontario," said Mr. Woodward. "The breath of the cattle and the stable odors are allowed to rise into the barn above and settle on the feed. This later is fed to the cows, and the farmers wonder where the bad flavor in the milk comes from. The third corner-stone," said Mr. Woodward, "is proper feeding, but it does not follow that because a cow eats up what you give her that it is necessarily the best food for her. In order to get the very best results out of your feed you must have a balanced ration. By applying to the superintendent or the Department of Agriculture, you can get a table showing the nutritive ratio of each of the combined foods. You can by this means combine your different feed stuffs in such a proportion as to get the very best results from them. Lastly," said Mr. Woodward, "you must keep good water before your cows all the time."

Mr. T. H. Mason, Stratfordville, in speaking to the farmers of North Perth, said that as soon as the milking was done the milk should be taken into a purger atmosphere than that of the stable. "It is here," said Mr. Mason, "that it is most susceptible to odors and germs, hence should be removed at once. As soon as possible it should be surrounded by a temperature of from 55 to 65 degrees F. It is easier to accomplish this by using deep-setting cans than by the shallow-pan method, as the cans can be immersed in cold water and a fairly low and even temperature kept. After skimming, the cream should remain in cold water for 24 hours. Every dairy should have a can large enough to hold a churning. By keeping the cream cool and occasionally stirring it, it will give butter of even flavor and body. I do not advocate any particular churn," said Mr. Mason, "but the dash churn is a thing of the past, and we must have a labor-saving churn in every family. The time at which the butter comes will vary, being affected by the weather, the feed, and by the temperature of the cream. It has been demonstrated that butter can now be salted in the churn, and butter coloring, at which many good farmers' wives look askance, is nevertheless a necessity, at least during the winter months. The one pound package is now the most popular on the market, and good butter put up in this way with neat, clean wrappings, and presented on the market by a tidy housewife, will always bring a good price."

Cheese Illustration Station.

At a meeting of the Board of Directors of the Western Ontario Cheese and Butter Association, arrangements were made for the work of instruction during the coming season, and it was decided to make Milverton cheese factory an illustration and experimental station, with Mr. Archibald Smith, Superintendent of the Strathroy Dairy School, in charge of the station. He will devote every alternate week to the work of instruction in buttermaking at the creameries in Western Ontario, and will also have the Counties of Perth and Wellington for instruction in cheesemaking. It is intended that this illustration station shall be fitted up in such a way as to be a model in all respects, that experiments shall be conducted during the whole season, and that the results of the experiments will be open to all cheesemakers who may wish to visit the station. Messrs. James Morrison, C. O. Luton and George McDonald will take the work of instruction in cheesemaking in the rest of the territory. The fees that will be charged to factories are very greatly reduced from those of last year, and during the coming year will be as follows: \$3 per visit of one day's duration, and \$2 per day additional for each consecutive day. The instructors will, wherever required, conduct fermentation and curd tests to ascertain the condition of the milk from the different patrons supplying it, and, if found necessary, will visit any who may be sending faulty milk, for the purpose of locating the cause and giving the patron instructions as to the best method of taking care of his milk.

Most Important Points in Churning.

1. Complete control of temperature and its judicious regulation according to conditions. (Butter to "come" in firm granules in from 30 to 60 minutes.)
2. The stopping of the churn when the butter is in granular form.
3. Not to wash the butter too much, especially not to let it soak too long, and have perfectly pure water.
4. Clean and sweet churns. (Remember a rinsing with clear lime water after the regular washing is one of the best means of keeping a churn sweet.)
5. Not to attempt to churn more cream than will churn easily.
6. Always use the (for your churn) best speed and run it evenly.
7. Strain the cream into the churn. Don't forget to put in the color or to ventilate.

These are the points (and their order of importance) which I consider will affect the churning. —J. H. Monrad in *Produce Review*.

In addressing the Agricultural Committee of the Canadian House of Commons, the other day, Dr. Fletcher, of the Central Experimental Farm, stated that there was no weed which could not be got rid of if only the farmers took the trouble to understand the nature of the weeds and devoted their attention to clearing them out of their lands.

Butter -- From the Stable to the Table.

THE COWS' HOUSE.

I have heard an old Scotch farmer often remark that the only condition under which a mortgage should be put on the farm would be to underdrain the land or build a good barn. Either or both help in time to build the fine house.

There are many reasons why a comfortable home should be provided for the cows, and only the best and most economical results can be obtained by making this provision.

In erecting a stable, the size of the herd and the means and material at hand must be considered. After the size and kind of a barn have been determined, select a well-drained spot, not too far from the dwelling house, on which to place the foundation.

A warm building means a great saving of feed. The walls of the stable should be constructed with that aim in view. A still air space between the walls is the best preventive of extremes of heat or cold.

Convenience should be considered from the first to the last. Have the passage between the two rows of stalls wide enough so that the fodder cart may pass down the center, and the passage in rear of the cattle wide enough for the manure cart or sled to pass. The silo (and no dairy farmer should be without one) may be built within the stable at the end of the passageway or adjacent to the barn.

With one's own convenience should closely be associated the comfort of the cow.

From a standpoint of health, perhaps ventilation should be placed first. To keep an animal in good condition, *pure air is a necessity*. Each cow should be allowed six hundred cubic feet of space, and more is better. Means should be provided to bring fresh air into the stable and to allow the foul air to escape, but in such a way as to cause no draft. Many valuable cows have died of inflammation, brought on by exposure to draft. There should be an opening near the floor to draw off the heavy foul air, and one near the ceiling to carry away the lighter (heated) bad air. A satisfactory and cheap way of admitting fresh air is by means of an opening slanting upwards in the wall, about two feet from the ceiling; so that the air strikes the ceiling and distributes itself over the stable.

Have plenty of light and sunshine; the one reveals the dirt and dust, and the other is a great germ destroyer. The overcrowded, warm, damp, dark bank-barn stables are greatly responsible for the spread of tuberculosis.

Do not have the mangers so high that they obscure the light, and so deep that they cannot be easily cleaned out, and become filled with decayed and mouldy feed.

In speaking of mangers, I might mention just a word with regard to the tying of cows. I hope none of the readers of the *ADVOCATE* torture their cattle by using the rigid stanchion. There are so many other methods better and certainly more humane. The chain with a ring sliding on an upright pole is considered one of the best.

The floor of the stalls should be tight; should have a slight slant towards the gutter and a drop of six to eight inches.

At least one box stall for sick cows should be in every stable, and others for calves. It is not advisable to have the calf stalls in the cow stable, as cows fret when they hear or see their young.

There is a great diversity of opinion with regard to having the stationary water troughs in the stalls. If they could be kept clean to insure pure water, it is the ideal way, and in accordance with a cow's nature to take a drink when she wants to, and not only when she has to or go without. I have seen many different devices for bringing water into the stable, and none seem to be entirely satisfactory.

It has always been the custom of good housewives to semi-annually houseclean, and I strongly recommend the dairymen to adopt the same practice with regard to the cows' house. Get the dust and dirt from every corner; sweep down all cobwebs; then, either with a spray pump or a brush, give the walls, ceiling and stalls a thorough coat of whitewash. It not only covers up dirt, but destroys germ life and lightens and brightens the entire building.

Canadian farmers as a rule do not pay enough attention to the appearance of their buildings. A visit abroad or even across the lines reveals this fact. We haven't learned the value of paint—how it preserves the wood and gives an appearance of thrift and tastiness attainable in no other way.

LAURA ROSE,

Instructor in Dairying, O. A. C.

A Good Butter Record.

I have just been making up accounts of the working of our cows for last year, and find we made of butter 3,913 lbs. from 13 Jersey cows, and six of them were 2-year-old heifers with their first calves, an average of 300 lbs. or a trifle over, and we averaged a trifle over 20 cents per lb. for it, making a little over \$60 dollars per cow in butter alone. I bought no feed outside of what we raised on the farm, so there was no extra expense, nor have I said anything about what cream and milk was used in our family of nine persons, besides some outside help sometimes. If you think this is worth publishing you may do so.

York Co., Ont.

WILLIAM WILLIS.

POULTRY.

Reply to Mr. Pettit.

SIR.—There are always two sides to every question, but some people seem able to see only one side, and come to imagine that there is no other side. Your correspondent, Mr. Pettit, in your issue of Mar. 1st, is, I think, one of these. He says, "Do these local poultry associations tend to advance the poultry business as an industry, and thereby benefit farmers and practical poultrymen, or do they simply afford an opportunity for a few 'fanciers' to meet and put into competition a few samples of the different breeds?" etc., and proceeds to argue that the government grant is wasted because a prominent place is given breeds which he considers a "curse to any farmer." I wish to show that the poultry shows are a benefit to the whole poultry business, but more especially to the farmer's end of it, and let me say that I have never won a prize at a poultry show. Like most farm stock, mine is not good enough. He mentions several breeds that he calls "utility" breeds. Pray where did these breeds come from, and how did they reach their present state of perfection? I can remember back twenty-five years, and at that time P. Rocks were nearly and Wyandottes quite unknown. Going further back, we read of the Shanghai, which produced the Cochin, and of the first Brahams brought to America. I have before me a picture of a pair of prizewinning P. Rocks printed in 1874, and they look very much like certain gray birds which I have in my henhouse, and similar specimens are to be found in nearly every farmyard. I have also several standard-bred Barred Rocks which I got from fanciers, and what a difference! It is not only in looks, and there can be no comparison between the old P. Rock and the handsome blue-barred standard bird, but the latter will weigh two or three pounds more and is better shaped. I will not speak of the Cochins nor of the different variety of Rocks and Wyandottes, but would ask Mr. Pettit who produced these varieties? Who gave them their weight and shape? Not the farmer. Give the average farmer all the prizewinners from the Ontario in any one breed, and in five years he will have a fine yard of mongrels. I do not say that farmers have not had a hand in the improvement, but they have been few, and have been fanciers as well as farmers. He says the competition at fairs is simply one of feathers. Has he ever seen a poultry standard? The standard is composed by the fanciers, and governs both them and the judges. The scale of points for the American class provides eight points for carriage, six for weight, and six for condition, all "utility" points. Then coming to details, shape in the different sections has twenty-eight more, making forty-eight utility points. Then there are eight for legs and toes, which might be added, as deformed legs or feet are not wanted by the farmer, and fourteen points for comb, wattles, etc., leaving only thirty for color. The case he supposes proves nothing against the fancier nor against the principle of government aid, but only that that particular judge was incompetent. Under a judge who knew his business the "fancier's exhibit" would have been cut so severely on shape and condition, even though judged by comparison, that it could not possibly have won. As to his attack on the fancy classes I want to say that the "long-whiskered Houdan" is one of the best of the "utility" breeds; it ranks among the best layers, and though not as heavy as the Wyandotte, it has more meat in proportion to its weight, being small-boned and full-breasted. I have been selling dressed fowls that weigh three to five pounds dressed ready for table, and there seems to be rather a preference for "those little plump birds," viz., the Houdans and their crosses. As to the Polands, Bantams, etc., I have no use for them myself, nor have I for Leghorns, though they are our best layers; but poultry shows cannot be run without money, and it is these fancy breeds that attract the largest crowds. Last winter the Eastern Ontario Show was held in Brockville, and since then numbers of farmers have bought improved stock who would not have thought of doing so but for what they saw there. A few years ago forty or fifty nondescripts represented the poultry at the S. Grenville Fall Fair, but last fall three hundred birds were shown, and this year the Association has to enlarge its building. I exhibited some Rocks, and though I did not win anything, I could have sold all my cockerels several times over to neighboring farmers. The farmer is awakening to the fact that he must introduce new blood into his flock just as he does into his cattle and sheep, and the exhibition shows him where to get it, viz., from the local fancier, and the local man in turn sends to the big breeders whose names he sees in the prize lists of the large shows. The fall shows are good, but unfortunately the birds are generally in poor condition then, and many of the best are kept at home for lack of feathers; this is why the winter show is necessary. Another reason is that dressed poultry cannot be shown to advantage in the fall; I tried it last year and had to remove my birds the second day to prevent them spoiling. But the local fanciers are, as a rule, unable to run a winter show without the aid of a grant for at least a few years to set it going. There is one thing, however, that should be insisted on, and that is a due regard for the dressed-meat branch; the neglect of this by the Ontario forms the only real ground for Mr. Pettit's complaint.

Grenville Co., Ont.

C. W. BEAVEN.

GARDEN AND ORCHARD.

Orchard Culture.

BY G. C. CASTON.

IMPORTANCE OF PROPER TILLAGE.

One of the most common causes of failure and of unfruitfulness in our orchards is lack of proper tillage. And people are slow to understand the importance of it. We often see a young orchard set out with well-grown and healthy-looking young trees, the soil in fairly good condition, and everything promising well; but in a few years many of these trees are dead, others are badly stunted and will never do any good. Only a few of the hardy and most persistent growers have survived, because the owner has tried to take two crops off the same land and at the same time. The grower does not consider the needs of the tree. While the different farm crops may be varied, and grown in a good system of rotation, the tree is always getting its food on the same spot of ground. If robbed of its supply by other crops, it cannot go in search of more or be changed to another spot where the soil is richer. Then there is a crop of foliage and an annual growth of wood to be provided for. So it is easy to see that where grain, timothy and other crops are grown right up to the stems of the trees, as is too often done, by the time the tree reaches bearing age there is not enough fertility left in the soil to produce a crop of fruit. But lack of tillage works another great evil, which is mostly overlooked; and that is the drying of the soil and lack of moisture during the summer. Perhaps there is no one thing that has more to do with stunted trees and unproductive orchards than this lack of moisture during the hot months of summer, just at the time when it is most needed. It is very important that the roots of the tree should be supplied with sufficient moisture. Moisture, or, in other words, water, is the medium by which the elements of growth are carried up into the tree, and a lack of it must always cause injury. Then there is the manufacture of plant food in the soil. The fertility or fertilizing elements we apply, as well as that already in the soil, must all go through a process of manufacture by nature before it can be used by the plant or tree. One of the conditions under which this process goes on is the presence of moisture in the soil. The lack of moisture hinders this process, and so the plant or tree fails to get the benefit of whatever fertility there may be in the soil.

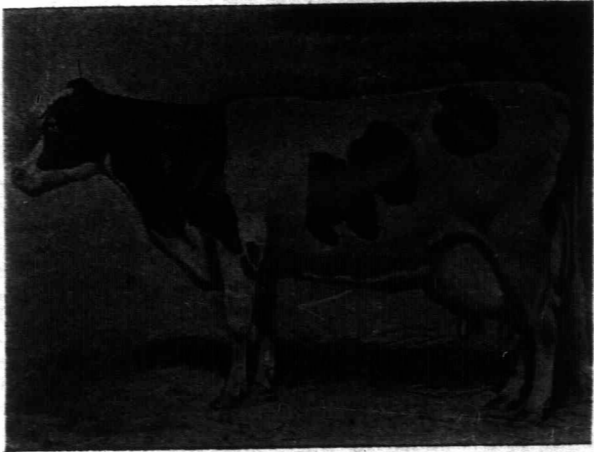
These objects should never be forgotten or underestimated: That by tillage we can control to a great extent the moisture in the soil. By preventing the escape of capillary moisture and by having the surface in a good friable condition we gain a great amount of moisture from the air. But the objection is often raised that in the case of a man planting quite a large area of fruit trees, he cannot always have this all in hood crop, and he does not want to lose the use of all this land while the trees are growing. The young trees are, or ought to be, in the case of apples, 30 to 35 or even 40 feet apart. Well, sow or plant any crop you like on space between, providing you don't put it too near the tree. Always leave a strip at every row of trees to be worked with the scuffer during summer, and wide enough to extend beyond the roots of the trees. This strip should be gradually widened as the trees get older, until they are in full bearing, when they will require the ground all to themselves. It will be very little trouble to cultivate this strip with the horse hoe or cultivator along each row of trees. A couple of rows of early potatoes may be grown on each strip, providing the fertility is kept up. These may be varied by other hoed crops, or occasionally skip a crop altogether. The strip of land between the rows of trees, if cropped with grain, should be cropped with a short rotation, so that a crop of clover should be plowed under every three years at least; that is, it should be plowed under when the after-grass, or second crop, is just at its best. In this way the fertility is maintained, humus is added to the soil, and as the roots of the trees gradually reach out, they will find food and a congenial soil. Some people delude themselves with the idea that as the roots of the tree penetrate deep in the soil, they draw their sustenance mostly from the subsoil and also obtain moisture in the same way. Therefore, it does not matter whether they are robbed of their food at the surface by other crops, and of their moisture by lack of tillage: they will get it from below by means of their deep roots.

A little observation will show the fallacy of this view. Take the case of an orchard that has been for some time on sod, and quite near the surface all about the tree will be found a mass of small fibers. These are the feeders of the tree. Take again an orchard that is regularly and properly cultivated (and an orchard should always be plowed or cultivated shallow, and always at the same depth), and it will be found that just under the cultivated soil, and as close to the surface as the regular cultivation will allow, will be found these small fibers in great profusion, showing clearly that it is from the surface soil that the tree receives by far the greatest part of its nourishment and moisture as well.

Where orchards are planted on old soil that has been cropped with grain without any proper system of rotation until the fertility and humus have been all worked out of it, and then grain and hay are still sown on this land right up to the trees, it is useless to expect any success. It would be just as reasonable to try to fatten a herd of cattle by turning them out to a straw stack. It will well repay anyone who wishes to plant an orchard and wants to make it pay to get the land in the very best shape, by good tillage and a liberal use of fertilizer, before planting the trees. It is very important that the trees get a good start. If they are not supplied with the material to build up good, sound, healthy wood tissue, they need not be expected to produce good crops of fruit, and a stunted tree is like a stunted animal, it will never give its owner a profit.

To have good healthy trees, they must have good cultivation, and it should be given early in the season, just as soon as the sap begins to circulate to the end of the twigs and the buds begin to swell; and it should be regular, never allowing a crust to form on the surface. A well-cultivated surface soil is the best kind of mulch. The season's growth of wood is mostly completed by midsummer, hence the importance of regular cultivation up to that time. From that time the process of ripening and maturing goes on.

In sections where very low temperatures occur in winter, cultivation should cease early, in order to facilitate the ripening and maturing of the new wood growth, and some kind of a cover crop may be sown in the early fall to protect the roots of the trees during winter. Fall rye does very well for this purpose, and it should be sown about the end of August or 1st of September, and it can be plowed under in spring. In some cases orchards have given fairly good results without cultivation after the trees have grown large enough to shade the ground, and the fertility is kept up by top-dressing of the soil. But even in these cases far better results would be secured by cultivation, and it should never be forgotten that cultivation is one of the secrets of success in the growing of orchard fruits.



HOLSTEIN-FRIESIAN COW, BELLE KORNDYKE 13913.

First prize in official test, under rules of American Holstein-Friesian Association, in 1899. Test 509 8-10 lbs. milk, averaging 4 per cent. butter-fat; 25.77 lbs. butter, 189 per cent. butter-fat, in 7 days.

OWNED BY H. STEVENS & SONS, LACONA, N. Y.

Time and Cost of Spraying.

To the Editor FARMER'S ADVOCATE:

SIR.—Regarding the time and cost of spraying an orchard has been overlooked by most of the writers upon the subject of spraying, not but what it is an important item upon the subject, and I here-with contribute my experience in that regard. I will take one orchard of five acres containing 250 well-grown apple trees twenty years planted. This takes a man and boy three days at each spraying, using eleven barrels at 40 gallons each of Bordeaux mixture and Parisgreen for the whole, or 40 gallons to every 20 or 25 trees, making a total for three sprayings of 33 barrels of the mixture for the season. In regard to the cost of the materials, last season the copper sulphate cost me 7 cts. per lb., 132 lbs., \$9.24; 2 bushels lime, 40 cts.; 8½ lbs. Paris green, 25 cts. per lb., \$2.07; total, \$11.71, not including labor. This is a small outlay compared to the percentage of clean fruit that is to be obtained by spraying, saying nothing about the improved condition of the trees and the satisfaction of knowing that you have done your duty to yourself and country. The cost of an outfit will depend upon the kind of pump. An iron pump will cost less at the first, but will be the most expensive in the end, owing to the action of the copper sulphate upon the iron, to such a degree that in one or two years it will become useless. The pump should be of brass, or at least the parts that come in contact with the liquids, and a pump of this kind will cost \$15 or \$16, but it will be found to be the cheapest in the end, and will last for a number of years.

Bruce Co., Ont. A. E. SHERRINGTON.

Half hardy plants, such as cabbage, cauliflower, and celery, should be hardened off in a moderately low temperature. The tomato, being a semi-tropical plant, cannot be kept in a low temperature without sustaining injury. It catches cold, becomes sickly and stunted.

ENTOMOLOGY.

Winter Work Against Vineyard Insects.

BY C. J. S. BETHUNE.

About sixty different kinds of insects affecting the grape are mentioned in Dr. Saunders' admirable work, "Insects Injurious to Fruits," each part of the plant, root, stem, branches and fruit having its own special foes. If all these insects were abundant in every vineyard, the grape-grower might as well give up and devote his energies to something else, but happily there are only a few species that are serious enemies and that require to be constantly fought against; other kinds are occasionally troublesome and demand special treatment, but do not return year after year in destructive numbers.

At this season, when we are looking for the speedy break-up of winter with its ice and snow, and the coming of spring, there are only two grape insects to which attention should be especially directed. These are the Flea-beetle (*Haltica chalybea*) and the Leaf-hopper or Thrips (*Brythroncra vitis*). The other destructive species may be dealt with later on when their ravages are apparent and remedies may be effectively applied.

The grapevine Flea-beetle is a tiny creature, less than a quarter of an inch in length, of a shining steel-blue color, sometimes greenish or purplish. In proportion to its size its thighs are enormously thick, enabling the insect to jump vigorously and a considerable distance. Its activity in this respect renders it somewhat difficult to capture, and has given it the name of Flea-beetle. In early spring, as soon as the buds on the grapevine begin to open, this insect may be found upon them, boring into them and devouring the future leaves and fruit in their undeveloped state, and thus doing an immense deal of damage in a very short time. Later on it eats holes in the newly-expanded leaves, and finally provides for a new brood by laying its tiny orange eggs in clusters on the under side of the foliage. From these eggs there soon hatch out small dark brown grubs, which feed in colonies on the leaves, and speedily make their presence known by riddling them with holes till they leave little but the larger veins remaining. For about a month, during parts of May and June, they continue to feed and grow, and when mature they disappear into the earth, where they spend a few weeks in the torpid chrysalis state. The new crop of beetles comes out in midsummer, but is not conspicuously injurious owing to the luxuriant abundance of leaves, which prevents their depredations being noticed. In the autumn they go into winter quarters under fallen leaves, in the earth at the base of the vines, in any convenient crack or crevice, and under any sheltering rubbish.

Remedies.—The first thing to be done, if this insect was noticed last year upon the vines, is to clear up and burn all fallen leaves and rubbish anywhere near the vines, and to rake up the earth about the roots. This should be done as soon as possible after the snow has gone. Later on the buds should be watched until they have well expanded, and if any of the beetles are seen they should be sprayed with Paris green and lime. The same treatment may be employed for the destruction of the grubs when they are found devouring the leaves. This insect also attacks the Virginia creeper, which should be watched and treated in a similar manner.

The Leaf-hoppers, or Thrips, as they are usually called, are very abundant in the dry, hot weather of summer and till late in the autumn. Every vine-grower must have noticed these minute creatures, which fly off in swarms when the leaves are disturbed. They are about one-eighth of an inch in length, of a pale yellowish-green color, ornamented with red or brown bands or rows of spots. They vary very much in pattern and color, and are consequently considered to belong to several distinct species. They feed in clusters on the under side of the leaves, sucking out the juices of the plant and causing the foliage to turn yellow from the exhaustion of the sap. If a single one is watched through



Grapevine Flea-beetle. The grubs are shown on the upper leaves, the beetles on the lower.

a magnifying glass, it will be noticed to have a habit of running sideways and of dodging quickly round to the other side of the leaf when it finds itself observed.

Remedies.—As this insect, like the Flea-beetle, passes the winter under fallen leaves, especially where a mass has accumulated against a wall or fence, the same plan should be adopted; that is, that all leaves and rubbish anywhere near the vines should be collected and burnt as soon as possible after the snow has gone. This is a matter that can be attended to before the pressure of spring work begins, and its due performance will assuredly "pay" the fruit-grower. It will be found profitable also for every farmer and horticulturist to keep his premises clean and his fence-corners free from weeds; also to burn up all heaps of rubbish and brushwood. These are the places where many injurious insects pass the winter and find shelter and protection at all seasons of the year. A little care and trouble now will save much loss and annoyance later on.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

NASAL GLEET.

F. M., Frontenac Co., Ont.:—"I got a mare three years old about two months ago. When examining her noticed a slight discharge from one nostril, with hacking cough. As many horses here were then affected with a sort of distemper, supposed it to be that. Soon cured the cough, but still after a quick drive will discharge a little of a thicker nature and rather yellow color. In every other respect seems to be in fine spirits and condition, eyes bright and clear, breathing natural and quiet. She is getting second pair of front teeth. Have never had a horse discharge so long after distemper or cold. Is it a common complaint? Is it likely to continue, and what can I do for it?"

[Your filly is affected with nasal gleet, which occasionally appears as a sequel to catarrhal diseases such as she has had. The disease consists in a chronic inflammation of the lining membrane of the sinuses (cavities) of the face, which are connected by means of small openings with the nasal chambers. The general health of animals affected is not usually interfered with except in advanced stages of the disease. There will be an irregular discharge from one or both nostrils, frequently only one, pointing to the fact that the sinuses of but one side are affected. This discharge is often accompanied with or preceded by a sneezing or coughing, and is usually noticed after exercise or while drinking; then for a shorter or longer period nothing is noticed, when under favorable circumstances there will be another discharge. In some cases a cure is very hard to effect, and in chronic cases an operation has usually to be performed, but if proper treatment be adopted early it usually results in a cure. You should take very good care of the filly; don't allow her to get wet, stand in a draft or in a cold stable, or subject her to any usage that would be likely to cause catarrhal disease or aggravate that already existing. When the weather is fine it will be better to give her regular light exercise, not sufficiently severe to cause profuse perspiration. If you have a good box stall for her it would be well to feed her off the floor. The position of the head under these conditions is such as to favor the escape of any pus or mucus that is present in the sinuses. It is also good practice to steam the nostrils once daily by holding the nose over a pail of boiling water, and stirring the water with a wisp of hay; this softens any accumulation of pus that may be there, and allows its escape. Give the following powders: Pulverized sulphate of copper, 3 oz.; pulverized sulphate of iron, 3 oz.; arsenious acid, 4 drs. Mix and make into 24 powders, and give one night and morning in damp food. If she won't eat the powders in her food, each one can be mixed with about half pint of cold water and given as a drench. After the powders are done don't give any medicine for a week, when, if you still notice a discharge, give another course of powders.

Vet. Dept., O. A. C., Guelph. J. H. REED, V. S.]

CHRONIC INDIGESTION.

THOS. MCK., Lambton Co., Ont.:—"I have a horse six years old which I cannot get into condition; he has not done a day's work in three months. I have given him all kinds of feed, hay, cornstalks, and straw in changes, boiled oats, oats and bran mixed with a tablespoonful of raw linseed oil. I have fed him copperas, condition powders, and given him a couple of physics. He is healthy enough, with an awful appetite, but keeps as poor as can be. Can you please prescribe something to help him?"

[I am of opinion, from the description, that your horse is suffering from indigestion, but from what cause it is hard to determine. Will you try a course of treatment as follows: Get your druggist to make up the following prescription: Powdered aloes, 2 ounces; powdered gentian, 2 ounces; powdered nitrate of potash, 2 ounces; powdered ginger, 1 ounce; powdered quinine, 1 ounce; powdered capsica, 1 dram; treacle, a sufficiency to make a mass. Divide into 12 doses, give one every day until bowels are freely relieved. WM. MOLE, M. R. C. V. S., Toronto.]

INFLAMMATION OF KIDNEYS.

SUBSCRIBER, Elgin Co., Ont.:—"Have valuable Clyde mare, suddenly taken as if in colic (afterday's work), which continued for most of a day. Would lie down and roll; did not bloat. When down would stretch out as if preparing to rise. Next day took a coughing spell quite bad, which lasted three days, then she took chills. Her kidneys appeared much out of order; urine very scanty and high-colored, and apparently caused pain to urinate. She does not eat well and is failing in condition. Can you tell me where the trouble is, and the remedy?"

[From the description, we are suspicious of inflammation of the kidneys. The coughing may be the result of having forced fluid on her lungs when drenching, and the chills the result of a little inflammation of the lungs. Continue to feed her a laxative diet, including a liberal amount of boiled linseed, and give her one of the following powders three times a day: bicarbonate of soda, two ounces; powdered gentian, one ounce; powdered nux vomica, half ounce; mix well and divide into twelve doses. Also give her a teaspoonful of fluid extract of belladonna every six hours for four days, mixed in a cup of water and drench. Get a fresh sheepskin from your butcher and put over the region of her kidneys for six to ten hours, which will cause much perspiration, after which rub dry and put on warm woolen blankets. Keep her warm, dry and quiet, take the chill off her drinking water, and avoid all drugs that will irritate the kidneys. If bowels are much constipated give a quart pure raw linseed oil, but nothing else in the shape of a physic.]

PRESSURE ON THE BRAIN.

T. H., Oxford Co., Ont.:—"I have a bull eight months old that has fits. Until he was four months old I gave him his mother's milk; after that I gave him oil cake, a few pulped roots, a little bran, a little corn chop and a little hay. He seemed to be doing splendidly, until about a month ago he began to have fits. He would lie and struggle and froth at the mouth for a few minutes, and then get up and begin to eat. He is getting stiff in his limbs now and is getting very thin. I am giving him soft feed all the time. My veterinary has been doctoring him, but does no good. He will have three or four fits in one day. Can you tell me the cause and what to do for him?"

[Your calf certainly is suffering from some brain affection, probably a growth of some kind, the pressure of which causes the fits. It may be tubercular. If a tumor of some kind is the trouble, nothing can be done, and the animal will continue (in all probability) to grow worse and eventually die. It is possible the brain trouble may be caused from digestive derangement, and it is worth while attempting treatment on that supposition. Give him a purgative of about six ounces of Epsom salts dissolved in warm water. After the purgative has ceased to act, give him the following: Pulverized nux vomica, four drams; pulverized gentian, two ounces; pulverized sulphate of iron, two ounces; bicarbonate of soda, four ounces. Mix well and make into twenty-four powders, and give a powder twice daily. It would be better to shake up in about four ounces of water and drench with the powders than to mix with the food. Little fault can be found with the food you have been giving, but it would be well to give no more corn.

J. H. REED, V. S.

Veterinary Dept., O. A. C., Guelph.]

INDIGESTION.

C. H., Fort McLeod:—"Will you please answer in your next issue what you think best to give a two-year-old filly that has always been poor since weaning? Her mother died from bots. She bites herself on the sides, scratches on the thighs, is always loose in the bowels, does not chew her food well. She did not shed her hair till late last spring. She was well fed during the winter of '98 and '99 on chop, boiled barley and oats and green feed."

[Your filly is apparently suffering from indigestion, and probably lousiness. Have the mouth thoroughly examined and see if there are any defective teeth, and if so, get them removed. Give on an empty stomach; raw linseed oil, 10 ounces; turpentine, 6 drams; sulphuric ether, half an ounce. Follow this up by giving morning and evening in food for two weeks: nux vomica, pulv., half a dram; gentian, pulv., bicarbonate of soda and hyposulphite of soda, of each one dram. Search for lice, and if found, apply the following by rubbing well into the roots of the hair: To one gallon of warm soft water add six ounces of English soft soap and three ounces of formalin. Mix well and apply as directed. While giving internal medicine give one teacupful of flaxseed in bran mash every night.

W. A. DUNBAR, V. S.]

VAGINITIS.

J. K., Wellington Co., Ont.:—"I have a cow that had twin calves last spring, and for a time after calving there was a discharge from the vagina of a bloody color. I asked a veterinary if anything could be done, and he thought she would come all right, but after a time the bloody discharge stopped, and afterwards a discharge resembling the white of a light-boiled egg came from her quite frequently, and she has never come in heat since. Would your veterinary department give me some light on the case? She is in good health and thriving condition. I have another cow that calved last spring. She came in heat regularly after, but when she was served in December she seemed in pain that night, straining as though trying to calve, and after a time the same white discharge started to come from her, and continues."

[In calving, the cow lacerated some portion of the vaginal passage, or the os uteri, which healed by suppuration. The second case described was injured much in the same manner through service setting up an irritation to the parts, producing the results mentioned. Give each cow daily an antiseptic injection into the vagina of the following: Little's Soluble Phenyle and warm water in the proportion of 1 to 200. Use a fountain syringe and wash the parts out thoroughly daily with not less than 2 quarts to each cow for two weeks.]

PINK EYE IN HORSES.

A. H. P., Richmond Co., Que.:—"Will you kindly describe the disease, pink eye in horses?" [The disease commonly termed pink eye, or more properly, epizootic cellulitis, is an inflammation of the cellular tissues of the body, appearing as an epizootic. Infection is transmissible through the air, and usually attacks many horses in the district in which it appears. The term, pink eye, arises from the highly-colored condition of the visible mucous membranes, especially that of the eye. The first noticeable symptom is an abundant watery discharge from the eyes, the lids becoming swollen and the mucous membranes highly colored (red or pink). There is great dullness, with quick pulse and an elevation in temperature (103° to 105° F.); mouth hot; the animal becomes stiff and sore, with some swelling under the belly; cough may be present; the secretions (kidneys and bowels) impaired; and great depression is present. The treatment consists in placing the horse in a warm, clean and dry box stall. Clothe the body, and avoid drafts. Give a laxative dose of raw linseed oil, about one pint; feed only light bran mashes, in which may be mixed small quantities of oatmeal; a few moderate doses of tr. aconite, say 10 drops of the B. P. tincture, every 6 hours in the drinking water, which should be pure and liberally supplied. Potassium nitrate and bicarbonate of soda in dram doses every 6 hours will also modify the fever. The patient should not be worked until completely recovered, as complications kill more horses with pink eye than anything else. During convalescence give tonics, such as gentian, iron, and nux vomica.]

HORSES THAT HUG THEIR TAILS—DOCKING NOT PROHIBITED BY LAW.

A. J. M., Glengarry Co., Ont.:—"We have a pair of colts that we are breaking in. Would you kindly advise me, through the columns of your valuable paper, how to make them carry up their tails. Would docking a small portion of the bone prove a remedy?"

[Different devices are used, with greater or less success, to make horses that hug their tails, carry them well out. One method is to use a very thick crupper. Another is to have an iron rod of about 1 inch thick bent double with the iron about 3 inches apart, and neatly covered with fine, soft leather. The bent end of the rod is allowed to project 3 or 4 inches, or even more, beyond the crupper, and the arms projecting forward for 8 or 10 inches, neatly enclosed with the divided portion of the crupper in a leather sheath. A fine strap is attached to the posterior portion of this device, near the end, which is buckled around the tail, carefully hidden by the hair. This device is also used to prevent switching; it compels the animal to carry the tail well out and also practically prevents motion. Of course any device of this nature simply acts during its application and does not remove the tendency to hug. Docking will do no good whatever. There is an operation called *nicking* which will effectually remedy the fault. It consists in severing certain muscles of the tail and then suspending the tail by means of ropes and pulleys until the wounds heal. This is a critical operation, and can be successfully performed only by an expert. If not skillfully performed, and afterwards carefully attended to, serious results will probably follow. I regret to say that your reply to Subscriber, Wellington Co., in your February 15th issue, was incorrect, as the amendment you there referred to has never become law.

O. A. C., Guelph.

MARE GIVING MILK BEFORE PARTURITION.

A. M., Peel Co., Ont.:—"Have a mare eight years old, carrying first foal, due in about two months, and for the last month milk has been running from her very freely. Am feeding as lightly as possible. Can or should anything be done to prevent it, and is it likely to have a bad influence on the foal?"

[The cause or causes of mares giving milk before the termination of gestation are obscure. I have noticed that in cases where the foetus dies in the uterus, the dam usually gives milk for a variable length of time. In cases of this kind the foal may or may not be carried until full time. If it should be, the general appearance would indicate that death had occurred some time previously. In cases of twins, one may be mature and the other immature, indicating that the latter had died in utero. In many cases the foetus is still alive, and will be carried alive until full term and be born alive, and in rare cases is a good strong foal, but, as a rule, is weakly and delicate, and in most cases dies. The condition must always be looked upon with suspicion. The flow of milk is hard to check. Keep the mare quiet and feed lightly on dry food; give diuretics, as dram doses of nitrate of potash, night and morning, in damp food (a little damp bran) for one week. Rub the gland well twice daily with the following lotion: Solid extract belladonna, 3 drs.; warm water, 1 pt.

J. H. REED, V. S.
Agr. College, Guelph.]

Miscellaneous.

EARLY LAMBS—SHEEP LOSING WOOL.

J. W. P., Pictou Co., N.S.:—"1. I would like some advice through the paper, how to make a success in breeding and raising early lambs, as they are always in demand.

"2. Can you let me know in your columns the cause of fat wethers losing wool. I have examined them and find them completely free of lice and ticks. The sheep are in good condition. I am using salt and sulphur for ticks, and it is doing well. I find no ill effects from the use of it freely. On examining the yearlings, I find the ticks come out through the wool and away from the skin, I suppose from the effects of the sulphur."

[1. The best breed of sheep for early lambs is undoubtedly the Horned Dorset, as, unlike all other breeds in Canada, they come in season throughout the year, so that they can be bred to lamb when desired; that is, if kept up in good heart and condition. With this breed some allow the ram to run with them all seasons, when frequently two crops of lambs are secured in a year. Where lambs are wanted at a particular time it is perhaps the preferable plan to put the male with the flock only at the season the ewes are wished to be bred. It is not necessary, however, to have Horned Dorset ewes in order to have early lambs, as any of the breeds can be made to produce lambs in February, and exceptional ones as early as January. What is necessary is a flock of vigorous young ewes, to be mated with a strong, masculine ram about 150 days before the lambs are wanted. Unless the ewes are in what is known as thriving condition, they will not take the ram early in the season, so it is wise to prepare them by light grain feeding on peas, oats and oil cake for three or four weeks before the ram is turned in, or to have a crop of rape or fresh clover to turn them on a couple of weeks before the ram goes with them. When once the ewes are pregnant they require to be kept well, but not fattened. After lambing, quite liberal feeding is necessary in order to rush the lambs along as rapidly as possible for market.

"2. The chances are the wethers are being liberally fed on grain and too warmly housed. If this is the case, we would recommend clipping them at once moderately close, and then applying one of the standard dips. These preparations are not only effective in destroying lice and ticks, but they put the skin in healthy condition by thoroughly cleansing it and destroying all disease germs.]

POLLED DURHAMS.

S. H. B., Simcoe Co., Ont.:—"I am well pleased with the ADVOCATE. I think every Canadian farmer should have it. I am starting on a new farm that I purchased a year ago. I have cleared the timber off 50 acres already. I am putting up good buildings, and want to get a proper start in stock, as that is important. I am told there is a strain of Durham cattle without horns, and that they are good milkers. Now, if you or any of your readers can tell me where to get this breed of cattle, I will deem it a favor."

[Messrs. J. F. and A. E. Burleigh, of Mayon, Grundy Co., Ill., are leading breeders of the Polled Durham family. These gentlemen began breeding the horns off their Shorthorn cattle a good many years ago, and when we last heard from them had reared a considerable number of hornless cattle. The FARMER'S ADVOCATE of July 2nd, 1894, contained an illustrated history of this breed, which had its origin about 1881 in a "sport" or "freak" of the recorded Shorthorn cattle of the Gwynne and Duke lines in the form of twin polled heifer calves. In 1883 the same cow dropped a polled bull calf. All are recorded in the American Shorthorn herd book, as well as in the Polled Durham herd book, of which Mr. J. H. Miller, Peru, Indiana, is the secretary. Mr. Miller is also a breeder. An enquiry written to either of these gentlemen, mentioning the FARMER'S ADVOCATE, will doubtless bring you any additional information desired. In breeding these cattle the aim has been to combine milk and beef, as well as to obviate the necessity for dehorning. A class of Polled Durhams were shown at the Chicago World's Fair, in 1893. There are, we believe, two classes of Polled Durhams admitted to the herd book for that breed, viz., (1) those eligible to registry in the American Shorthorn herd book, which are called "double standard," and (2) those graded up from native mulley cows by the use of registered Shorthorn bulls.]

WHAT STALLION SHOULD BE USED?

YOUNG FARMER, Muskoka, Ont.:—"I would like your opinion on a matter of horse-breeding. I have a large young mare from imported Percheron stallion, dam from Clydesdale. Would it do to breed her back to her own sire, there being no other horse of the class within reach? Would you recommend breeding her to a good-sized trotting horse for a good lively general-purpose horse?"

[Of the two evils, which is the lesser? That is the question. Were the mare ours we would travel considerable distance and make some sacrifice to have her bred to a draft stallion, preferably of Clydesdale or Shire breeding. If such a horse cannot be reached, however, our next choice would be her own sire, provided he is a well-formed, sound horse, with no striking defects. No doubt a useful produce might follow the service of a well-bred, superior class of Standard-bred horse, but this sort of crossing does too often produce what is known as the dunghill nondescript, that is little better than no horse at all.]

BUDDING FRUIT TREES.

R. J. BROWNLEE, Perth Co., Ont.:—"I have been looking through the back numbers of the ADVOCATE, hoping to find something about 'budding' fruit trees, but I fail to find it. Would you please give a short account of the work, how and when to be done?"

[Budding is the operation of applying a single bud bearing little or no wood to the surface of the growing wood of the stock. The bud is applied directly to the cambium layer of the stock, and nearly always inserted underneath the bark, the bark thus being used as a cover to the wound. Budding is largely employed upon nearly all fruit trees, and almost universally so upon stone fruits. It is also used in roses and many ornamental trees. Budding is commonly performed during the growing season, usually in late summer or early fall, because mature buds can be secured at that time and young stocks are then large enough to be worked readily. But budding can be done in early spring, just as soon as the bark loosens. In this case, perfectly dormant buds must have been taken in winter and kept in a cellar or other cool place. It is more successful when performed in dry, clear weather.

There are several styles of budding, but the most generally adopted is what is termed shield-budding. It is generally performed from early July until the middle of September. Most fruit stocks, especially apples and pears, are not budded until two years after the seeds are sown. Buds are taken from strong, well-hardened shoots of the season's growth and of the desired variety. The bud is usually cut about an inch long with a sharp, thin-bladed knife. It is necessary to cut the surface smooth and even. A bit of wood is usually removed with the bud, as is shown in Fig. 3. Some budders remove this piece of wood with the point of the knife.

Fig. 1. Preparing Stock.

The wound, or matrix, which is to receive the bud is made by two incisions, one vertical and the other transverse (Fig. 1). These are light cuts extending only through the bark. The vertical slit is usually made first, and by the rounded end of the knife blade. This is an inch or inch and a half long. The transverse cut is made across the top of the vertical cut by one rocking motion of the blade. The corners of the bark may be lifted a little by an outward motion of the blade, so as to allow the bud to be pushed in; but unless the bark slips very freely, it will have to be loosened by the end of the blade or by the scalpel on the reverse end of the handle of the budding knife. The bud is now inserted in the cleft of the bark. It is readily pushed down by the fingers. The entire bud should pass into the cleft, or, if a portion of it should project above, it should be cut off.

The bud must now be tied. The whole matrix should be closed and bound securely as represented in Fig. 2. The string is usually started below the bud, usually being wrapped twice below the bud, and about thrice above it, in fruit trees, the lower end being held by lapping the second course over it, and upper end being secured by drawing a bow through under the upper course, or sometimes by tying an ordinary hard knot. Care should be taken not to bind the string over the bud itself. Any soft cord will answer, but the most frequently used is the inner bark of basswood or linden. In two or three weeks after the bud is set it will have united to the stock. The bandage must then be removed or cut. It is the common practice to draw a knife over the strings, completely severing them on the side opposite the bud, and allowing them to fall off at will. If the strings are left on too long they will constrict the stem and often kill the bud. The bud should remain perfectly dormant until spring, for if it should begin to grow, it will be injured or perhaps killed by the winter. It should remain green and fresh, however, as if it shrivels or turns brown it is worthless.]

Fig. 2. Bud Tied.

Fig. 3. Shield Bud.

LUMBER IN A LOG.

J. L., Elgin Co., Ont.:—"At this time of the year many farmers are selling logs. Many of the farmers, however, do not know the rules for the measurement of a log, and for calculating the number of board feet in the same, and consequently are at a loss to know whether or not they are receiving justice at the hands of the log buyers. Kindly give the rules, and also tell what allowance, if any, is made for slabs, sawdust, etc."

[To estimate the number of feet of inch lumber in a log, subtract 4 inches from the diameter for slabs; square one-quarter of the result in inches and multiply by length of log in feet. For example: Take a log averaging 40 inches in diameter and 30 feet long; 4 inches from 40 leaves 36 inches; one-quarter of 36 is 9 inches; 9 inches squared is 81, which, multiplied by 30, equals 2,430 feet of inch lumber in the log.]

FEEDING ENSILAGE AND MEAL ONLY.

E. S., Cumberland Co., N. S.:—"1. Have any of your readers ever tried, in summer or winter, the experiment of feeding cattle on ensilage and meal, without hay, straw or cornstalks, and was the experiment a success as regards the health of the stock and profit to the owner?"

"2. What crops were used to make the ensilage, and was any weight used in the silo?"

"3. What meal was used, and quantities thereof?"

"4. Have any of your Canadian readers used Prof. Stewart's self-cleaning stable, and did it suit them?"

"5. Is moss litter used in Canada, and at what price sold, and where?"

[1, 2, 3. The only experiment of this kind we have record of was conducted at the Ontario Agricultural Experiment Station under the direction of Prof. Dean. Its purpose was to ascertain the effect of an almost entire ensilage ration on the flavor and keeping quality of butter. The cows were gradually brought up to from 50 to 60 pounds of corn ensilage per day, fed along with 8 pounds of equal parts, by weight, peas, bran, oats, and oil cake, and 2 pounds of hay, per day. The experiment lasted only a few weeks, during which time the cows did well and their cream churned easily into high-scoring butter. We will be pleased to learn of any extended experiments along the lines indicated by E. S. The weighting of corn in a silo is almost out of date, but we find farmers covering the fodder with chaff, wetting it thoroughly and sowing oats to sprout and form a mat.

"4. We have never observed Prof. Stewart's self-cleaning device in use, nor do we consider it as satisfactory as an ordinary gutter back of a platform of proper length to suit the cow. We leave this question for our readers to answer. Prof. Stewart's self-cleaning device consists of the portion of stall floor where the cow's hind feet stand being slatted over a gutter to catch the droppings, etc.

"5. We are not aware that moss litter is sold. Some of our readers may answer this question also.]

SICK FOWLS—LEG WEAKNESS.

E. S., Ontario Co., Ont.:—"1. One of my hens lately became swollen in the head round the eyes. The swelling seems baggy, as if watery. Her eyes, too, are watery, though they are as bright as in a healthy bird. There is no discharge of any kind from mouth or nostrils. She eats well and talks when I feed her. I have her isolated. What do you think is the cause of the swelling? Is it infectious? How can it be cured? She began laying to-day, and she is not too old—14 years.

"2. Lately, one or two of my hens have partially lost the use of their limbs for a time. They are lame for a day and then all right next day. They are laying, and are last year's pullets. The house is new; board floor, deeply littered with cut hay and straw. Would their feed so affect them? Soft, warm mash in the morning, and grain buried in the litter; at noon, wheat to scratch for; and in the evening, grain or oats or sunflower seeds; cabbage or a mangold almost every day is hung up for them."

[The swelling in the head is due to a cold. If there is a discharge from the nose it would be wise to kill and burn the bird and thus avoid disease. If only a cold, place the bird in a warm coop, free of drafts, and feed on warm feed, using plenty of pepper. Bathe the swollen parts with warm water. A few drops of coal oil injected in the nostrils might be an advantage.

The leg weakness in the pullets is due to excessive egg-production. Your pullets have been fed on a stimulating food, which must be reduced somewhat on the approach of spring. Remove the male bird from the pullets until the use of their legs is restored. At this season of the year, sunflower seeds are too fattening, as is also corn. Feed more vegetables and grain, such as barley, wheat and oats. W. R. GRAHAM, Manager. Poultry Dept., O. A. C., Guelph, Ont.]

MORE LIGHT WANTED RE SAWDUST AND MANURE.

W. R. AUSTIN, N. Westminster, B. C.:—"Re reply to my question answered in issue of January 15: Still the important feature of the question in the latter part is not answered. Where is the stable manure, both solid and liquid, which was in the mixture, and will the soil return it later on, and 2nd, why did it injure the grass fields where it was used entirely on top and might act as a mulch?"

[It is quite possible that much of the nitrogen of the manure mixed with sawdust escaped as ammonium carbonate produced by heating, etc., before the manure reached the land. Further, that the benefit of the solids of the manure were overbalanced by the physical action of the sawdust in the soil. Applied on the top, it probably did not benefit as a mulch because there would not be enough to really mulch. That it injured the soil, applied as a top-dressing, may and probably is a mistaken impression. That the pitch locks up the nitrogen is not correct. But in any case, I would not purchase manure from stables where shavings as litter are used. A. E. SHUTTLEWORTH, Chemist. O. A. College, Guelph, Ont.]

SMUT IN OATS.

J. D., Wellington Co., Ont.:—"Will bluestone kill smut in oats as it will in wheat?"

[Yes, but a stronger solution is necessary. A pound of bluestone dissolved in 8 gallons of water is the recognized solution for 8 bushels of oats, whereas a pound in 10 gallons of water for 10 bushels of wheat destroys wheat smut.]

HYACINTHS AND CARNATIONS.

G. P. G., Huron Co., Ont.:—"Will you kindly put a short article in the ADVOCATE on the treatment of hyacinths and carnations, after winter blooming, to prepare them for blooming next winter? We want the flowers in winter."

[Hyacinths that have blossomed in the house during the winter seldom do well a second time. The best thing to do with them is to plant them out in the garden and leave them there with the tulips and crocuses, to flower out of doors in the following spring.

After they have done flowering in the house they should be left in the pots and watered occasionally, so as to keep the earth from drying up. They may be put anywhere so long as they are not exposed to frost. When warm weather comes the pots may be left out of doors, under a tree or in a shed out of the sun—no attention need be paid to them. If it is desired to bring them in for another winter, they should be repotted late in the fall, or at any rate (if it is found that they have many roots) the greater part of the soil should be removed and replaced with a mixture of sand and rich loam. When brought indoors they should be kept in the dark till there has been plenty of time for a good supply of roots to form—at least six weeks—and then brought into the light some weeks before it is desired to have the bloom. But for winter blossoms it is far more satisfactory to get fresh bulbs and pot them in the autumn; the spikes of flowers will be far finer, and there will be less danger of disappointment.

2. It is the general opinion of florists that it is not worth while trying to keep carnations that have flowered in the house over to another winter. It is better to sow seed in the open garden and take up the plants late in the autumn for blooming in the house. Should they show a tendency to blossom out-of-doors, they must be prevented from doing so by nipping off the buds. If, however, it is desired to preserve a choice variety that has flowered indoors, the best plan is to plant it in the flower-bed in spring and then by "layering" get new growths for potting later on in the season. This is done in the following manner: In July or August, take a fresh young shoot, strong and vigorous, which should be four or five joints in length; strip off all the leaves nearest the root, leaving only those on the two or three upper joints. Stir up the soil about an inch, and fill in with light rich soil, then take the shoot in the finger and thumb of the left hand, bending it upwards, inserting a sharp knife below the third joint from the top. Cut upwards, splitting the shoot half or three-quarters of an inch above it. Cover up with soil, being careful not to break the shoot, and as soon as rooted put in two-inch pots, pretty firmly, in light sandy soil. Re-pot two or three times, and give favorable growing conditions, such as plenty of air and light.

C. J. S. BETHUNE.]

THE SAN JOSE SCALE ACT.

W. J. P., Wentworth Co., Ont.:—"Is the embargo on nursery stock from United States still in force? Does it also apply to forest-tree seedlings or transplanted stock? Does the San José scale effect forest trees?"

[The San José Scale Act is still in force, and reads as follows: "The importation of any trees, shrubs, plants, vines, grafts, cuttings or buds, commonly called nursery stock, from any country or place to which this Act applies, is prohibited." (The names of the countries to which the Act applies are the United States, Australia, Japan, and the Hawaiian Islands.) The following plants are exempted from the operations of the above-mentioned Act, viz.: 1. Greenhouse Plants, with the exception of roses; 2. Herbaceous Perennials; 3. Herbaceous Bedding Plants; 4. All Conifers; 5. Bulbs and Tubers.

Prof. Lochhead writes us on the above question as follows: "Inasmuch as the San José scale has been found on chestnut, black, Japan and English walnut, basswood, elm, acacia, alder, sumac, willows, catalpa, poplars, silver maple, cut-leaved birch, mountain ash, Juneberry, laurel, hawthorn and Eonymus, it is very likely that the Department at Ottawa would refuse to allow trees to be imported, even though it has the following section: 'The Governor-in-Council, upon its being made to appear to his satisfaction that any class of plants is not liable to the attack of the San José scale, may exempt plants of such class, and grafts, cuttings or buds thereof, from the operation of this Act.'

"My own observations as to the infestation of forest trees lead me to the conclusion that few forest trees in Ontario have thus far been found infested. In the Niagara districts, where forest trees and second-growth shrubs were surrounded by badly-infested orchards, no trace of infestation could be discovered, even after careful search. At Guilds, several willows, ornamental birches, and an isolated elm, were found infested. It may be said that if the forest trees could be searched thoroughly scale would likely be found on them, especially in infested districts. Prof. Webster, of Ohio, states that elms become infested as often as they are exposed, but our experience in Ontario does not warrant that statement. I beg to refer your readers for further particulars to my bulletin on 'The San José and Other Scale Insects,' which will be ready for distribution some time this month.

"W. LOCHHEAD, Entomologist.

"O. A. C., Guelph."

DESTROYING COUCH GRASS AND OX-EYE DAISY.

QUEBEC FARMER:—"I intend, the coming season, to cultivate a field containing twitch or couch grass, which in some parts has almost taken full possession of the soil. Since plowing out of lea there has been one crop taken off it, and it was again plowed last fall; clay soil. Please tell me how to proceed in order to make a thorough job of it. Do you approve of sowing buckwheat on such land? Whether would a 20-tooth iron grubber or one of the modern spring-tooth cultivators be the best to tear up the strong roots of this weed? How can ox-eye daisy be killed out?"

[In a dry season probably the most satisfactory method of exterminating couch grass is to plow rather shallowly and work the roots of the grass to the top with a spring-toothed cultivator. If this is done repeatedly and the roots raked up and drawn off and burned, good work will be accomplished. Regarding the growing of buckwheat, our experience leads us to favor it as a means of destroying couch grass by smothering, and better results seem to be accomplished by allowing the buckwheat to ripen for seed before plowing the ground. In the case in question, we would recommend working the surface, as already mentioned, till about the middle of June; then sow buckwheat, about five pecks per acre, and allow the crop to ripen; then, after the crop is removed, give the field another thorough cultivation as in spring. Rib the land late in the fall by turning two furrows together or by cutting and covering. This will expose a large amount of surface over winter, which will lift and kill the exposed roots. The following spring it would be well to cultivate thoroughly till time to sow roots or plant corn and grow a hoed crop. This treatment should accomplish good results, which it will, especially if the seasons are at all dry, but in a wet season it is almost useless to work at couch grass, as each turning of the plant gives it a fresh start, at which time smothering seems the only remedy.

Ox-eye daisy is a bad weed to deal with, particularly in meadows and pastures where cultivation cannot be given. It grows in all soils and infests all kinds of crops. It is least troublesome in hoed crops, and these, too, are effective in destroying it. The object should be to grow two hoed crops in succession, or a hoed crop following a summer-fallow. An infested meadow could be pastured until June, then plowed rather deeply, cultivated down and sowed to rape in drills. This crop can be cultivated well throughout the season and pastured off in the fall. The following spring grow a well-cultivated hoed crop. Another good plan is to sow an infested field with rye and pasture it off until June. The ground may then be worked as summer-fallow or sown to millet to pasture later in the season, or it could be plowed down. Whatever plan is adopted, the aim should be to induce germination of the seeds and then destroy the young plants. It would be well to avoid seeding down until the field has been cleared of the weeds.]

PAINT RECIPES.

A SUBSCRIBER, Shelburne:—"Would you please give recipes in the columns of your valuable paper for making a good white and brownish-drab paint suitable for outside of house; also a light yellow for floors that will dry quickly and wear well."

[Ready mixed paints prepared by Canada Paint Co., also Sherwin-Williams Co., both of Montreal, are mixed in all colors and for all purposes. They are cheap, durable, and easily applied. If it is desired to mix the paints, the following rules may be followed: For the house paints, first get Robertson's chemically-pure white lead, mix with raw linseed oil to a consistency almost ready to apply, and thin to work well with turpentine. Now mix in a separate pot a small amount of ultramarine blue with raw linseed oil; pour carefully into the white, stirring thoroughly, just enough to remove the yellow cast. To dry quickly, add a little Japan or patent drier—Japan preferred. To get the brownish-drab shade, mix burnt umber and raw oil to the same consistency as the white paint. In another pot mix lamp black with oil to same consistency. Use sufficient of these with the white paint to produce the desired shade of brown or drab.

For Yellow floor paint get spruce ochre ground in oil (put up in tins), thin with boiled oil and turpentine, in equal parts, to working consistency. Give two coats of this, then one coat of waggon varnish or best furniture varnish.]

SPRING WHEAT YIELDS.

J. B. P. R., Wentworth Co., Ont.:—"Can you or some of your many readers let us know how spring wheat of the various kinds is yielding in different counties throughout Ontario. As peas have been a failure for some years, and barley not in demand only at a low price, some farmers are thinking of trying the Goose variety of spring wheat."

[Last year the Experimental Union sent out over Ontario, the three following varieties of spring wheat: Wellman's Fyfe, which yielded an average of 23 bushels; Rio Grande, 20 bushels; and Herrison's Bearded, 19 bushels per acre. Wild Goose was not included in the group, but in '88 that variety stood ahead of the 48 varieties grown in plots at the Guelph Experimental Farm, yielding 48.29 bushels per acre, and for 8 years averaged 34.13 bushels per acre. On pages 91 and 92 of February 15th, 1900, issue, there appears a letter on New Kinds of Seed Grain, which speaks favorably of Goose wheat. We also call attention to our editorial note, to which we look for such information as is desired by J. B. P. R.]

RE-SEEDING BARE SPOTS IN PERMANENT PASTURE.

READER, Middlesex Co., Ont.:—"What varieties of grasses and clovers would be most suitable to sow during the thawing and freezing weather of spring on the bare spots of meadow to make permanent pasture?"

[The varieties of grasses and clovers used for the above purpose would be greatly influenced by the varieties which were used when the permanent pasture was first seeded. As a rule, however, I would advise re-seeding the bare spots with some of the hardiest and most vigorous varieties. If the bare spots are composed of a good average soil, either naturally or artificially underdrained, the following varieties and amounts of seed per acre should make a serviceable mixture: Orchard grass, five pounds; meadow fescue, four pounds; tall oat grass, three pounds; timothy, two pounds; meadow foxtail, two pounds; lucerne clover, five pounds; and alsike clover, two pounds; making a total of twenty-three pounds per acre. We have found this mixture to be an admirable one in its resistance to our severe winters and its variety and abundance of pasture during the summer season. Some of the varieties being comparatively late in growth, furnish the best pasture during the dry part of the summer, which so frequently occurs in many parts of Ontario. C. A. ZAVITZ, Experimenter. Guelph Experimental Farm.

To sow on bare spots of meadow for permanent pasture, I would advise the following mixture: Lucerne, two pounds; red clover, two pounds; alsike, two pounds; white clover, one pound; timothy, three pounds; orchard grass, three pounds; blue grass, three pounds; harrow after, when the land is dry. Yours truly, Wm. RENNIE, Sr.] Toronto, Ont.

BOGUS CODLING MOTH CURE.

ENQUIRER, Peel Co., Ont.:—"A man is just now canvassing the farmers of this section with a cure for codling moth. A small auger hole is bored in the trunk of the tree and filled with some drugs and then plugged up. This is to be done early in March. I would like to know if the 'FARMER'S ADVOCATE' can tell if this plan is of any value? It is also supposed to promote the growth of fruit."

[It is a great pity that a man who is clever enough salesman to dispose of a material of such unlikely merit as is evidently being sold in Peel Co., Ont., should not start out with some worthy class of wares. We presume, however, an article of use would cost something, which is not likely the case with the fraudulent mixture he is palming off, as he must be getting some orders or he would quit the business. It is not long since a like remedy was being recommended and sold by unscrupulous, glib-tongued agents for black-knot on cherry and plum trees. It is not to be greatly wondered at that persons without knowledge of botany should accept a plausible argument for reaching a disease like black-knot through the circulation of the sap, but how men can be led to believe that such an injection could prevent the work of an insect that comes from an egg laid in the blossom end of an apple we can have no conception. It seems to prove Barnum's statement, "People delight in being humbugged."]

TO PREVENT HORNS GROWING.

E. A. N., Missisquoi:—"Will you be kind enough to advise me through the valuable FARMER'S ADVOCATE how to prevent horns growing on calves, and at what age they should be treated, what to use and how to use the preventive, and how many times it should be used?"

[Probably the simplest way to prevent horns growing on calves is to treat the embryo horns of the calves before they are ten days old with caustic potash. Clip the hair around the horns, moisten the surface of the buttonlike growth, and rub on lunar caustic potash stick until the spot treated becomes quite red and raw. Care should be taken not to allow the dissolved potash to run down on the skull. A little grease applied to the skin around the horns will prevent the potash doing injury. One thorough application of this sort usually suffices to kill the horn. If calves are too old for this they may be left till a few months old, when the horns can be gouged off the skull with a sharp knife.]

DISAGREEMENT ABOUT WEIGHTS.

W. B., Wellington Co., Ont.:—"I would like you to answer in the next issue of the ADVOCATE this question: I delivered some hogs to a packing factory, and I weighed on the town scales, and then drew them down to the factory, about quarter of a mile, and weighed them there and they were nearly 30 pounds short, so I left them, but have not settled yet, and would like to know if I can collect the town weight or will I have to take their weight? I understand the factory scales were not tested at the time. If I can collect, what steps shall I have to take?"

[We have no hesitation in believing both sets of scales weighed correctly, as very little jolting and jarring of pigs knocks off weight, especially if they were closely housed while fattening and were fed before leaving home for the packing house. Thirty pounds is not too much to expect even a small load to shrink from reloading and hauling even a quarter of a mile. Unless the company agreed when buying the pigs to pay for them according to the town scales weights, they cannot be forced to do so.]

GLUTEN MEAL AND OTHER FOODS—CONVENIENT PASTEURIZER.

SUBSCRIBER, Ontario Co., Ont.:—"1st. Is gluten meal a good feed for milk and butter production, to be fed with ensilage, hay, roots, etc.?"

"2nd. Will it take the place of bran? If so, what quantity should be fed?"

"3rd. What is its value for feed, say at \$20 per ton, compared with bran at \$15 per ton."

"4th. Is there any simple or convenient way to pasteurize the milk or cream in an ordinary farm dairy?"

[1. When of good quality, gluten meal is an excellent food for milk and butter production. It is a product which varies a good deal in composition, and therefore it is well to be careful in forming an estimate of its value.

[2. It will take the place of bran when mixed with other foods, but owing to its concentrated nature it is hardly so safe a food as bran, and should not be fed alone.

[3. As a supplier of protein (muscle and milk formers), gluten meal at \$20 per ton would be cheaper than bran at \$15 per ton.

[4. Apart from using a modern pasteurizer, which can be secured at any dairy supply house, probably the cheapest method of pasteurizing a small bulk of cream or milk is to place it in a shotgun milk can which is 8 inches across and about 18 inches deep; set the can in a barrel or other vessel of hot water, heating the milk or cream to 160 degrees, keeping it well stirred for 20 minutes at the temperature referred to.]

SUN-SCALD IN APPLE TREES.

W. A. W., York Co., Ont.:—"I have lost a great number of young apple trees from what I suppose to be sun-scald. The bark dies on the south or west sides of the trunk of healthy trees, beginning on a small piece, and enlarging each year till it kills the tree. It attacks a tree generally at the bearing age. What is the cause, and what will prevent it? My land is a heavy clay loam. Your reply through the ADVOCATE will much oblige."

[Sun-scald is caused by alternate freezing and thawing of the stem on the south-west side in late winter, causing the bark to die and decay. Oftentimes the dead, blackened bark separates entirely from the stem. Orchardists now generally recognize the cause of the trouble, and prevent it by shading the stem in some way. A good plan is to set a board, or two boards, trough-fashion, on the south-west side, held in place by a piece of twine. Some fruit-growers use cornstalks, wire netting, or lath. Trees are apt to suffer from sun-scald after a heavy pruning, especially if they have been allowed to grow too thick in the first place. Cutting out heavily from the center of the tree exposes the oblique and horizontal limbs to the intense heat of the sun, and the bark is likely to blister and be killed, after which borers are likely to finish the work of destruction.]

IMPORTING FEED CORN.

W. I. WAGG, Algoma District, Ont.:—"Enclosed find \$1, for which send the FARMER'S ADVOCATE for one year to a neighbor, Mr. ——. Will try and send more subscribers later on. Can you let me know where feed corn can be bought by the carload on a lake port, and also what it will cost?"

[You can order corn through E. W. Waggoner, grain dealer, 708-709 Rialto Building, Chicago, Ill.; Montague & Co., grain dealers, Chicago, or J. S. Lampham & Co., Detroit, Mich. All three are reported to us as trustworthy dealers, and we know personally that some of our readers have had satisfactory transactions with the first-named. In some parts of the country many feeders order their corn through local dealers who are in the habit of importing. At this writing (second week in March) corn by the car lot at London, Ont., is worth about 40 cents per bushel. In your locality, transportation would make prices higher till navigation opened. Shipped by boat, there would be the additional cost of 10 cents each for sacks.]

CISTERN UNDER HOG PEN.

J. M., Huron Co., Ont.:—"Should a person put a cistern under a pigpen? Would the water be fit to use in feeding the pigs, or would it be unhealthy? Top of cistern to be thoroughly cemented over."

[If the cistern were made positively water-tight, and had no communication with the air of the pen except through the pump, it would be as wholesome under the pen as in any other position. Or if the pen is floored with cement concrete it will prevent leakage. On the other hand, if the water cannot be kept absolutely free from contamination, it would not be wholesome for the hogs to drink.]

CONCRETE CURB IN WELL.

SYMAM KELLOGG, Gattineau Point, Man.:—"I am thinking of digging a well 8 ft. square and 30 ft. deep, and putting in concrete instead of stone for the first 8 ft. to keep it from falling in. What thickness of concrete will I need? Will it break with the frost?"

[The above wall should be 15 in. at bottom and 12 in. at top, made plumb inside, batter next to earth. Concrete will not break with the frost when properly constructed.]

PLOW CLEANER WANTED.

T. W. LEE, Prescott Co., Ont.:—"Could you give me any information as to where I could get cleaners for plow colters? I had one, but it got lost, and there are none to be had around here. They were made by a man named Perrin, and could be fastened on any colter."

[If any reader will send us the information asked, we will be pleased to publish it for the benefit of Mr. Lee and others.]

MARKETS.

FARM GOSSIP.

Replying to a question regarding the purchase of Canadian hay for the Transvaal, Hon. Mr. Fisher, Minister of Agriculture, informed the House of Commons the other day that the details of the transaction were in the hands of the Imperial Government, for which his department was acting as agent, assistance being given by Prof. Robertson.

Huron County.

The winter is getting along nicely. We have had good sleighing since New Year's; the snow has been from 6 in. to 2 ft. deep at different times. Our January thaw did not materially affect the sleighing, but last week the weather broke, and now the sleighing is about gone. During the good sleighing farmers have been hauling grain, hay, wood, logs, etc., to market, and, with but few exceptions, the manure is spread in the winter time.

Hay—which is principally timothy this year—is selling at about \$8.00 on the market. Grain is marketed at: Wheat, 63c.; oats, 25c.; barley, 35c.; peas, 56c.; while flour is \$1.75 to \$2.00 per cwt.; bran, \$14.00 per ton; shorts, \$16.00.

Pork is going up a little. \$4.40 being paid this week. In produce: Choice roll butter, 22c.; eggs, 18-20c. Potatoes can hardly be sold at 25c.

I attended the annual meeting of a cheese factory company the other day, and there was considerable discussion about putting in a butter plant, to work in addition to the cheese. Those in favor thought they could get their calves raised in the spring, before cheesemaking was started; they could keep while those which would be taken the year round, etc.; more cows if the milk would be taken the year round, etc.; counteract any benefit that may be derived. I would like to know if any of the "gossippers" know of a company introducing the buttermaking, and how does it pay?

The West Huron Farmers' Institute has published a table containing the constituents of the different clovers and grasses, feed stuffs, and grains, with the nutritional value, and explanation how to work a balanced ration. It is a very valuable piece of information, and should be of practical use to those receiving a copy. The information was obtained from the deputation at the Institute's regular meeting in January—Messrs. Glendenning, of Manila, and Elliott, of Galt. A copy will be sent to each member of the Institute. F.C.E.

Ontario Government Spraying Operations Dropped.

Judging from the Ontario estimates for 1900, the vote for spraying in connection with fruit-growing has been discontinued. Evidently it is considered that the fruit-growers should now be in a position to put to practical use for themselves the instruction which has been very conclusively demonstrated also in general practice.

Dominion Grange.

At the recent annual meeting of the Dominion Grange, Mr. Jabel Robinson, Master, reviewed the history of the organization, and gave reasons for its subsequent decline in strength—opposition of country politicians and merchants, and failure of farmers to appreciate the power of organization. The Secretary's report showed the Grange to be in better condition than a year ago. Subordinate Granges number 70, with average membership of 30. Officers were elected as follows:—Master, Jabel Robinson, Middlemarch; Overseer, J. McDougall, Milton; Lecturer, J. G. Lethbridge, Strathburn; Secretary, W. F. W. Fisher, Burlington; Treasurer, James Falls, Newbridge; Chaplain, J. Allen, Churchill; Steward, J. G. Mitchell, Glencoe; Assistant Steward, J. Grey, Lonsdale; Gatekeeper, H. J. Dynes, Burlington.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT. Following table shows current and comparative live stock prices:—

Table with columns: Live stock prices, Extreme prices now, Two weeks ago, 1899, 1898. Rows include Beef cattle, Hogs, Sheep, Natives, Lambs, Colorado lambs.

The cattle prices are just now a little disappointing; not to the few who had faith and made their cattle good, but to the many who had faith and made their cattle good, but then fed them a short time and lacked courage or corn or capital, or all three, to finish them out. If the cattle that are unfit for market were held back, the prices for all kinds would be a good deal better than they are now. The light and heavy cattle are getting a little closer together, as they usually do at this season, but the ordinary light-weights are not making money, while the ripe cattle are leaving a fair margin of profit for feeders. A cattleman says: "With a decrease of 30 per cent. in the number of beef cattle in ten years; with an increase of 30 per cent. in the population of our meat-eating country; with prosperity installed in every industry; with foreign demand increasing in the currency of the country; without a cloud in the sky to obscure the sunshine from a happy, industrious, and prosperous people, only the sluggard and the ignorant have cause for complaint, and the cattleman who is not successful has only his own neglect to lay hold of, the abounding essential of success to blame for his failure."

Hogs are selling so well that feeders are losing no time in getting them to market. For some time past supplies have not been as large as looked for, but as a matter of fact the current supplies, not only here, but elsewhere, are close to the average for this time of year. The recent heavy storms were given as a reason for disappointment, and now the trade is seeking further without getting very satisfactory answers. It seems that the good, profitable prices for hogs have kept the supplies of pretty well marketed, and there is at present, no supplies of ripe hogs on hand.

Sheep never sold so high at this season of the year as at present. The sheep and lambs are being better prepared than ever before, and the lamb and mutton that one is now able to get, even in an average restaurant, is so good that it tends to increase the general demand for that class of meat. There is yet plenty of lamb stew from tough old ewes and rams, and it is not hard to find mutton chops of boot-strap tenderness, but in the main the mutton that is offered is from younger, better bred and better fed sheep than formerly.

Toronto Markets.

We have recently heard it remarked that farmers are not having the general prosperity said to exist in this country. We individually take exception to this view, and would modify it somewhat by saying that the rapid rise of prices is not so marked as in other lines. Those who will take the trouble to refer back to last year's number of the FARMER'S ADVOCATE and tick off the present with those prices will be able to notice a very marked improvement in the prices of live stock especially. Export and butchers' cattle, feeders, stockers, sheep, lambs, hogs, horses, cheese, butter, and eggs, show marked advances on even last year's prices. Again, look at the statistical returns of loan companies, with mortgages repaid, farm buildings erected and improved. In almost all lines the farmer is in a much better position than two years ago. He is not enjoying boom times, but we venture to assert that collectively the farmers of Ontario are in a much better position than two years ago.

Export Cattle.—Several lots of extra choice shipping cattle were on offer. Trade was fair on light run, and all on offer sold readily, but the prices were not advanced. Choice lots of export cattle sold at \$4.75; for the best choice, \$5.00 per cwt. Light export sold at \$4.40 to \$4.70 per cwt. Mr. Fred Hitchings sold one carload of best export cattle at \$5.00 per cwt. A thoroughbred heifer, weighing 1,606 lbs., bred and fed by Mr. Cargill, of Cargill, Ont., was sold to Mr. W. H. Dean at \$6.00 per cwt.

Butchers' Cattle.—Choice picked lots of butchers' cattle, equal in quality to export, but not so heavy, sold at \$4.25 to \$4.50 per cwt. Mr. James Harris bought one carload of best and medium butchers' cattle, 1,025 lbs. average, at from \$4.40 to \$4.50 per cwt. One load of medium at from \$4.25, average 1,000 lbs. One load of mixed butchers and exporters, 1,225 lbs. average, at \$5.00 per cwt. Messrs. Zeagman & Maybee sold one load of butchers' cattle, average 950 lbs., at \$3.85 per cwt.

Bulls.—Heavy export bulls were in demand and sold at \$1.00 to \$1.25 per cwt.; while light sold at \$3.40 to \$3.65 per cwt. Bulls for the byres sold at \$2.75 to \$3.40 per cwt. Mr. Thomas Crawford, M. P. F., sold one load of feeding bulls at \$3.50 per cwt. The market feeding sheds are full of bulls waiting shipment. Space is quoted at 47 shillings per head.

Feeders.—Choice well-bred steers, weighing from 1,050 to 1,200 lbs., are in demand, and worth from \$3.75 to \$4.00 per cwt. Steers weighing from 800 lbs. to 900 lbs. sold at \$3.00 to \$3.25. Buffalo quotes these steers at \$4.15 to \$4.40 per cwt. Stockers.—Yearling stockers, 500 to 600 lbs. in weight, are quoted at \$3.00 to \$3.25 per cwt.; heifers, black and white, are quoted at \$2.25 to \$2.75 per cwt. Buffalo quotes the stockers at \$3.00 to \$3.75 per cwt.

Sheep.—The demand for choice export sheep very good; prices firm, or advancing, at \$3.50 to \$4.00 per cwt. for ewes and wethers, and \$2.50 to \$3.00 for bucks. Butchers' sheep sold at from \$2.50 to \$3.00 per cwt. and per head. Lambs.—Prices were firm, at from \$4.50 to \$5.00 for spring lambs. Picked barnyard ewes and wethers sold at \$5.50 to \$6.00 per cwt., but there were many inferior buck lambs slow of sale, while the grain-fed were quickly cleared.

Calves.—Scarce and wanted. Good veals fetched top price—\$12.00; inferior, from \$4.00 to \$6.00 per head; all sold. Milk Cows.—In light supply; prices good for any choice quality. Only four new-calving cows on offer, with prices firm, at from \$30.00 to \$45.00 per head. Hogs.—We regret to notice that quite a few breeding sows are coming forward, also a number of stores. These, although wanted by the market, are quite a loss to the farmer. Deliveries light; prices steady, at \$5.50, with the probability of a rise to \$6.50 next week for best selects, 160 lbs. to 200 lbs., off cars, not watered or fed. Thick fats and lights at \$4.75 per cwt.

Grain Market.—Receipts of farm produce were large. Wheat easier, at 62c. White, about 200 bushels on offer. Red, 62c. per bushel. Goose, 500 bushels at 70c. per bushel. Barley steady; 800 bushels sold at 45c. to 47c. per bushel. Oats easier; 1,000 bushels sold at 31c. per bushel. Peas at 61c. per bushel for immediate delivery. Hay.—Deliveries large, about 30 loads per day for the last week. Owing to good sleighing, many farmers from a distance were able to reach the market. Prices steady, at from \$10.00 to \$13.00 per ton.

Straw.—Scarce; wanted, and firm in price, at \$9.00 per ton. Baled Hay, in car lots, \$9.00 to \$9.50 per ton. Baled Straw, in car lots, at from \$4.00 to \$4.50 per ton. Dressed Hogs.—About 400 dressed hogs delivered daily for this week; sold at from \$7.00 to \$7.10 per cwt. Bright, picked lots, handy weights, suitable for butchers, a shade more than \$7.10c. per cwt. Butter.—On account of the disorganized condition of railway traffic, butter is very scarce; best grades command fancy prices. Best creamery at from 25c. to 28c. per lb.; best dairy rolls at from 20c. to 25c. per lb.; butter of various grades, tub and large rolls, medium quality, at from 15c. to 22c. per lb. Cheese.—Holders of cheese must be standing on velvet. The present market presents the strongest situation that has obtained for many years. Cheese is high, and going higher. Holders are looking for 14c. per lb. Quotations are given as 12c. to 13c. per lb., but neither of these prices would be accepted for any quantity for delivery. Hides.—No. 1 60-lb. steers, 10c.; No. 2 steers, 9c.; No. 1 cows, 10c.; No. 1 calf, 11c.; sheepskins, each, \$1.00. Wool.—Fleece, 20c.; unwashed, 11c.; super, 20c.; pulled super, 22c. Seeds.—Red clover, per bushel, \$5.00; Alsike, choice, \$7.00; Alsike, No. 2, \$6.00; white clover, \$8.00; timothy, \$1.00. March 11th, 1900.

Canadian Live Stock Exports.

The total number of cattle shipped from Montreal during the season of 1899 was 81,904, a decrease of 17,385 from 1898. The total number of sheep shipped during the same time was 58,277, an increase of 23,336 over the shipment of the season of 1898. The number of horses shipped from Montreal during 1899 was 4,739, being 1,088 less than last year. The total number of United States cattle in bond shipped from Canada numbered 11,745. From Quebec were shipped 4,293 cattle and 779 sheep; from St. John, N. B., 2,579 cattle, 1,624 sheep, and 303 horses; and from Halifax, 6 horses were shipped. From Charlottetown, 1,583 sheep and 91 cattle were shipped. Total from all these ports, 94,767 cattle, 62,273 sheep, and 5,048 horses.

Dear Butter.

Buttermakers are having their innings in the market now. The price on the farmer's market in Toronto runs from 26c. to 30c. per lb., and the stores are retailing it at 30c. to 35c. The scarcity of the article accounts for the price, and the scarcity is accounted for partly by the great increase in the export of Canadian butter to Great Britain, which for the last six months of 1899 amounted to no less than 25,491,760 lbs., valued at \$4,947,438, as compared with an export for the same period in 1898 of 15,739,808 lbs., valued at \$2,894,798, and in 1897 of 11,526,592 lbs., valued at \$2,039,197. The price of cheese is ruling so high, and promising to continue to be high, that many factories have continued making cheese during the winter, which has also tended to make butter scarce and consequently high. The outlook for dairymen is indeed encouraging.



The Mercy of the Boer.

A SOUTH AFRICAN PASTORAL.

Night had just fallen upon the veldt. The short dusk had suddenly deepened into a heavy, thick obscurity, impenetrable for a space until there rose the rim of a full moon over the edge of the plain which showed hard and clear-cut against the great disk.

By the edge of the marsh a transport wagon had outspanned for the night, and within the circle of firelight, where moon and flame struggled for the mastery, loomed the wavering outlines of the trek oxen tethered to the dissel-boom, and now and again the figure of a man.

The only sounds were the crackling chirps of the bullfrogs in the vlei, and the voices of two men who sat leaning back against the kaross of meerkat skins flung over one of the wagon wheels.

"No!" repeated the elder man, the transport rider and owner of the wagon, raising his voice. "With us they shall not come either she or the brat."

"But look, Jakob," persisted the other; "it is now three weeks, four weeks, that we are on the trek, and she has followed all the time, and carried the child, too. How the poor girl lives I do not know. Take only the child, Jakob."

"How are we to eat? How is the Vrouw to eat?" demanded the Boer, querulously. "Are there not enough mouths to fill already? And God knows how much further the span can go without water in this accursed country; they have enough to pull as it is. And why should I feed the wife and child of every black scoundrel that is fool enough to want them? Verdonte swartzkop!" and he spat angrily into the fire.

"But the child," persisted Piet; "that is small, and eats but little, not a quarter as much as a dog. Besides, Klaus may run away if the girl falls sick, and he alone knows the road and the drifts across the river."

There was a moment's pause. "Well, the brat, then, in God's name," snapped the other. "The girl can walk, as she has walked these three weeks," he added, and rolled himself in his rug to avoid further surrender.

Piet rose stiffly to his feet; the night breeze was growing chill. He knocked the ashes out of his pipe, kicked some fuel into the embers of the fire, and went around to the other side of the wagon, where the three Basuto boys were lying.

"Klaus!" he called. "Here a moment!"

"Baas Jakob says the baby may ride with the Vrouw in the wagon, but the girl must still walk."

"There was a sudden movement at his feet, and a dark figure rolled out of the blanket.

"No, boy, no! Not that!" His hand was being covered with kisses. Piet drew it sharply away, and, taking a strip of biltong from his pocket, thrust it into the Basuto's grasp.

"Here, this may help for the girl; it was all I could get," he said, roughly, and turning on his heel he went back to where his brother lay sleeping. Baas Piet was as averse to being generous as the transport rider, though for other reasons.

For a while Klaus lay still. Presently, carrying the piece of hard sun-dried meat and his own supper of boiled mealies, he crept shivering from his blanket and went slowly out on to the silent veldt, in the direction from which the wagon had come, as he had gone every night to listen for the signal that told him Betta was there among the ant-hills. Then he would cheer her up, and sit beside her while she ate some of his poor rations, though they were not enough for her and the child. Betta was a good girl. He knew that when he gave her father two oxen and some wethers, and took her away with him from the old kraal by the wagon drift across the river three years ago. She had been with him ever since, and now, when the trek began, Baas Jakob would not let her ride in the wagon or even come near it.

Klaus grasped the kerrie dangling from his belt at the recollection of the cut across the mouth that the drunken transport rider had given him with his sjambok when he had asked his permission. Besides, there was the baby, and he could not have left both of them behind, so far from the kraal and her own people. But Baas Jakob was a hard man; he did not understand such things.

Ever since they had left Burgheersdorp—many weeks ago—she had walked after them, the baby slung at her back; and there were yet three weeks more and the desert strip to cross before they reached the Great Belt. But the transport rider would not let her ride in the wagon now with the Vrouw, and the girl would not be so tired.

Ah! Baas Piet was a good man—better than Baas Jakob. He would help; and later on he might even be rich enough to buy a few head of cattle and some ponies, and they would all go back to the old place on the Krei, and . . . He started to his feet as the pipe of a honeybird came faintly out of the distance. Betta was there at last.

The wagon was creaking along under the burning noonday sun; the oxen stumbled lazily with lolling tongues, crawling at snail's pace without fear of the flick of the lash, for every one was asleep except the little voerlooper trudging in front of the two leaders, crooning an endless native song to himself. The wind, more burning than the sun, came in ceaseless gusts across the arid veldt, destitute of grass or tree, and, catching up great clouds of red dust, whirled them in eddying, choking masses about the wagon, and then swept them away until they vanished in the shimmering heat haze. Now and then a tortoise dragged his black and yellow shell out of the way of the span, and lumbered heavily off the track to a safe distance, to retire within himself until the unwonted apparition had disappeared beyond his limited horizon; or a snake would shoot out a shining head from the shelter of some deserted ant heap as the rumble of wheels roused him from his nap; and far up in the clear blue air floated a great vulture, without a tremor of his wide pinions, just as he had floated for many days past, watching and waiting.

Suddenly there was a stir under the tilt. The curtain was flung aside, and Baas Piet stepped out on to the fore part of the wagon, yawning sleepily.

"Boy!" he shouted. "onsaddle the mare. I shall ride on to the waterhole beyond the drift. It cannot be far off now."

Klaus appeared from underneath the wagon, where his blanket was slung hammock-fashion in the daytime.

"No, Baas Piet; the spirit should not be more than one hour's ride now, and the hole is only two, three mile further."

Presently he brought the mare around from the back of the wagon, where she had been tied up, tightened the girths, and rolled up the riem of the neck halter. Baas Piet swung himself off the edge of the wagon into the saddle.

"Tell the Baas when he wakes up," he said; and with a shake of the reins cantered off through the dust.

"It cannot be far off now," repeated Klaus to himself, as he watched him until he became invisible in the midst of the vast brown expanse of sun-scoured hillsides.

It was now five days since they had left the last vlei, and he had given nearly all his share of the hot muddy water that the Vrouw served out to the girl for the last few days, but that was very, very little; and she was sick, too.

For a moment he stopped and looked backward. There, just topping the last rise, miles and miles away, his keen sight could pick out against the skyline the little black speck that had been behind them for so many weeks now, faltering on with parched lips through the heat and loneliness of the plains, always dropping further and further behind as evening drew in.

He heard the snores of the transport rider and his Vrouw as they slept comfortably under the tilt. If they could only feel what Betta felt—yet it was easier for her now that she had not the baby to carry, and the water was close in front; and after that only two or three days' trek before the desert ended. And, comforted by the thought, Klaus walked on after the wagon and returned to his blanket.

The baby was certainly the most contented of all, lying in an empty sugar box under the shade of the tilt, engaged in coiling the soft end of the eighteen-foot lash round and round its chubby arms. It grew fatter and merrier every day. The Vrouw rather liked it, black as it was, for she had no children of her own.

All at once came a warning shout from the voerlooper. They were right on the edge of the drift, and the leaders began to pick their way slowly down the steep bank over the loose rocks and sand. Klaus was busy putting the heavy iron shoe on under one of the hind wheels, while Baas Jakob, in a bad temper at having his sleep disturbed, sat upon the front of the wagon, swearing at him and the other boys for being lazy.

Now sliding sideways over a smooth shelving rock, now plunging down over a ledge with a jar that wrenched every bolt and wheelspoke, the heavy wagon crashed down the bank, only to come to a dead stop at the bottom, imbedded in sand up to the axles. The span were knotted in a tangled mob of clashing horses and twisted yoke reins, snuffing and pawing up the sand with impatient hoofs; instinct told them that water was there—but it was far, far below, for the last rains had fallen many months back.

"Verdomte rooieknels!" raged the angry Baas, beside himself. "Twist their tails; get that iron spike here, Hendrik—that will make the devils move."

"Where?" cried Klaus, who was only became more hopelessly entangled. In vain Klaus dashed in among them, sjambok in hand, kicking here and alashing there, while Hendrik and the voerlooper called upon the beasts by name and urged them forward. Water they knew was there, and water they would have.

The whip! why don't you take the whip, you scoundrel! Where? Where? Where? cried the infuriated Boer, rising and glaring about the wagon.

As he went forward he stumbled over the baby and its box, upsetting it and sending the child rolling across the floor of the wagon, where it lay in a ball on a heap of skins, crowing with delight. People so seldom played games with it.

The Boer thrust the empty box back against the side with his foot, and snatched the baby from the handle. Poising it carefully above his head in both hands, he gave a little preliminary flourish, but the end was caught in something—"The brat again, curse it!"

It opened wide eyes of pleasure at him, holding up its dimpled wrists, wound round with the end of the lash.

With a savage oath he kicked it off the end of the wagon into the midst of the struggling mob and brought the great whip down upon them with all his force. Again and again it uncoiled and whizzed down with a crack like a rifle shot, cutting into the steaming flanks of the plunging mob until they bellowed again. Scared and bleeding, deafened by the report of the whip and the hoarse yells of the men, the maddened beasts straightened out, and with Klaus and the voerlooper urging at the heels of the sinking water, they waded up the further bank of the drift, the wagon creaking through the rocky river-bed behind them, and then trailed wearily forward into the dusk.

And when all was still the lizards came out of the crevices, only to scuttle back with a whisk of their tails. There was water in the drift now—red water, dripping softly down between the stones and sinking into the thirsty sand. Overhead sailed a vulture in ever-narrowing circles. And then the night fell.

It was late that evening before Klaus crawled stealthily away from the wagon, taking a full beaker of fresh water from the pool and his supper; the Baas was very angry with him because the wagon had stuck in the drift—though how could he help it if the oxen would not be driven—and had forbidden him to leave the wagon to get Betta. But no Baas could keep him from doing that, no matter how many hidings he got for it.

He walked back as far as the edge of the drift, and sat there waiting. He could not see far to-night, for there was no moon, only the half light of the stars, and the bottom of the drift twinkled black as his feet struck it, and he had forbidden him to leave the wagon to get Betta. But no Baas could keep him from doing that, no matter how many hidings he got for it.

Klaus waited for many hours, but the girl did not come. Of course, having the baby to carry again would make her take longer; for Baas Jakob had told him how he had seen it roll off the wagon that morning trying to reach a big tortoise on the road, and crawl after it unhurt, and how he had watched it there until Betta had picked it up when she came along. Still, she would catch them up next evening, and he left the water beaker and the food tied up in a piece of rag under a heap of stones in the middle of the road, so that the aasvogels could not get at them, and Betta might find them there in the morning.

But Betta did not catch the wagon up next evening, or the next.

Four days afterward they had passed the edge of the desert and outspanned among the shady tamarisks and the willows by the banks of the Great River.

"Never mind, Klaus," said Baas Piet, kindly, patting him on the shoulder; "hunger is a bad death, but it is God's will, besides," he added, with a smile, "there are yet many good girls in Basutoland. But you will stay with Baas Jakob and me yet a bit!"

"I stay with you—and Baas Jakob," answered Klaus, simply. "He treats me as well as any other Baas."—*Pall Mall Gazette.*

Had Him Fast.

It was only recently, according to a letter in an exchange, that in St. Paul's Cathedral a London guide held forth thus to an American gentleman:

"That, sir, is the tomb of the greatest naval hero Europe or the 'ole world ever knew."

"Yes?"

"It is, sir, the tomb of Lord Nelson. This marble sarcophagus weighs forty-two tons. Hinside that is a steel receptacle weighing twelve tons, and hinside that is a leaden casket, 'ermetically sealed, weighing two tons. Hinside that is a ma'ogany coffin 'olding the ashes of the great 'ero."

"Well," said the Yankee, after reflecting a moment, "I guess you've got him. If he ever gets out of that, telegraph me at my expense."

THE QUIET HOUR.

"Give Us Men."

Give us men! Strong and stalwart ones: Men whom highest hope inspires, Men whom purest honor fires, Men who trample self beneath them, Men who make their country wrestle them, As her noble sons Worthy of their sires! Men who never shame their mothers, Men who never fall their brothers, True, however false are others, Give us men—I say again, Give us men! Give us men! Men who, when the tempest gathers, Grasp the standard of their fathers In the thickest fight: Men who strike for home and altar (Let the crowd cringe and falter), God defend the right! True as truth, though lorn and lonely, Tender—as the brave are only; Men who tread where saints have trod, Men for country—Queen—and God: Give us men—I say again—again— Give us men!

There is a cry going up from many homes in city, town and village—an intensely earnest cry, from many and many a heart. Sometimes the pleading voice is almost hopeless, and yet the prayers go up day after day, night after night, with hope or without it. Mothers praying for sons, wives praying for husbands, sisters praying for brothers. Do not mistake my meaning. I do not now speak of the many prayers, both public and private, offered for the safety of our soldiers in a distant land.

I speak to-day to young men particularly, and wish to remind you, to begin with, that you cannot take the downhill road—recklessly, defiantly, or carelessly—without involving others in the shame and misery which you may think you have a perfect right to heap up for yourselves. When you spend night after night with bad companions, losing by degrees the shame and self-contempt which at first made you miserable, dare you assert that it is no one's business but your own? Have you lost your manliness altogether? Don't you feel ashamed to drag down the women who love you, instead of using your manly strength to protect and shield them from harm? Are you not ashamed to show such mean ingratitude in return for the kindness you have received? Your mother will forgive! Yes, until seventy times seven! A mother's love is almost infinite. Is that any reason for making her miserable?

These are severe words, and you may indignantly exclaim: "I am not a brute! I don't intend to break any woman's heart!" Probably you don't. Surely no one ever did set out with that intention. But, think a moment, are you carelessly drifting in that direction?

Did you ever watch the Niagara River some distance above the Falls? How quiet and peaceful it looks, yet the current is terribly strong. Drop your oars and drift a little. Then try to row back to safety—if you can! If you let yourself carelessly drift into evil habits, it is folly to think that you can pull yourself up at any time. If you have such a delusion, think of other men who have made shipwreck of their lives; who have lost their own self-respect, and are pitied or scorned by their fellow-men. Did they intend to fling away, with both hands, their hopes for this life and the next? God has provided a natural protector for the weakness of childhood, and another for the weakness of old age. He did not need to write on tables of stone the command that parents should love and protect their children. That law was already written in their hearts. But He did command children to honor their parents, and even singled out that commandment by adding a promise to it. You disobey that command at your peril. If there is a promise attached there is also a penalty implied in the promise. The Apostle says, "Honor thy father and mother, which is the first commandment with promise, that it may be well with thee, and thou mayest live long on the earth"; and certainly it is not likely to be well with those who are undutiful and disobedient.

There is some truth in the Spanish proverb, "One father can support ten sons, but ten sons cannot support one father." Think how your parents denied themselves that they might provide you with everything you needed. Think how proud and pleased they were when you were successful in school or the world. Think how untiringly they cared for you in sickness and in health. Have you paid back any of the debt of love you owe to them? "A wise son maketh a glad father," and you may, if you choose, fill the last days of your parents with gladness; you don't want to earn the opposite title of "the foolish son," who is truly said to be "the heaviness of his mother," do you? God made man in His own image. Think what an honor He has bestowed on you, and do not drag down His image below the level of the brute creation.

But over and above the negative virtue of refraining from evil and keeping your manhood from trailing in the dust,—

"Be noble; and the nobleness that lies In other men, sleeping but never dead,— Will rise in majesty to meet thine own! Then wilt thou see it gleam in many eyes. Then wilt thou see it gleam about thy path be shed, And thou wilt never more be sad and lone."

HOPE.

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

No one can drive through the country without being struck with the difference in farmhouses and their surroundings. Some look well cared for and comfortable, while others have a neglected and miserable appearance. Here is a farm with a cosy, snug little dwelling house on it—only a simple frame cottage, but well-kept and clean. Graceful creepers cover the walls and add beauty to the building, and close by is a neat garden filled with a great variety of flowers and vegetables. Not far off are the stables and barn, all in good order, with the cattle quietly standing about, chewing the cud and looking the picture of contentment. The fences, too, are trim and tidy; no gaps in them or fallen pieces. If we step inside the home the same order and cheerfulness prevail. Everything is in place and cosy-looking, inviting us to enter and rest; flowers blooming in the windows, brightening the room. Everything about the place, inside and outside, suggests order and comfort; aye, even prosperity. "Surely," we exclaim, "this farmer and his family are on the road to success." And they deserve it, too!

But we come to another scene by no means so enchanting. What a tumble-down place! What an air of general neglect! Shingles off the roof; in the windows a few broken panes of glass, patched, perhaps, with paper or rags; garden nowhere; kitchen refuse thrown anywhere; vegetable scraps adorning the paths; dirt and cobwebs over all, with possibly a pig or a calf lending grace and beauty to the scene at the back door. Look at the outbuildings; doors off their hinges, or will not fasten. Nice wide spaces in the fences, through which the cattle and pigs may pass "at their own sweet will," and cause the loss of many a half-hour to their owner while he chases them out. The animals are all standing about, but they have not the peaceful, contented look of their neighbor's across the way. They seem to say: "Here we are, poor, neglected creatures! We have the misfortune to belong to a man who cares neither for us nor our comfort. How would he like to exchange places with us? Would that we had a home as pleasant as our friends next door; but we are only dumb animals and must suffer patiently." No one seeing a farm of this description would think of associating with it the word "prosperity."

So it is all over the country. We need not go far to see both kinds of farmers' homes; they are everywhere. But every farmer and his family ought to aim at improvement in their home. It is not necessary to have expensive outer buildings or fine houses, but we can all have homes—cosy, cheery, inviting and bright. We can make our house have a "homey" look, both outside and inside. We can remember the climbing vines and the plots of brilliant flowers; the orchard, with its tempting produce; the garden, with its many varieties of vegetables for our tables; and the trees, with their refreshing shade on a hot day. Inside we can follow the same lines and make everything just as inviting as possible. A pot or two of paint and a few rolls of wall paper will work wonders under a judicious hand.

A good way to work is to have a particular object in view and try to attain it. We might lay our plans as to what is most needed. First, it might be a new reaper or a rake for the goodman, or a washing machine or a better churn for his wife, or something equally necessary; but let us work for that, trying to save a few cents here and there, and we shall gain our object by and by. Do you not think, my dear girls, that things acquired in this way have far more interest and value to us than if we got them easily? It is human nature to prize what is difficult to obtain. It is hard work—hard, steady work—to make our homes just what we wish them to be, but how great is the pleasure of living with the object of getting on. This month is just the very best time to begin. Winter will soon be forgotten, and Nature will revive again. Dear nieces, do not forget the tiny seeds now, if you would have a beautiful home in summer. Many seeds should be sown now in boxes, and with a little care will be ready for transplanting later on. A few packets cost only a few cents, and then the wealth of color and fragrance which we may have! Nasturtiums, poppies, morning glories, geraniums and others, for color; and for their delightful odor, what is better than mignonette, violets, heliotrope

or roses? Did someone say, "Oh! such common flowers; anyone can grow these." Yes, they are common, and that is a glorious thing, for beauty and fragrance may thus be everywhere. It is people's own fault if they have surroundings devoid of beauty and taste. A girl once said to me: "I am sick of geraniums—vulgar, scarlet things, in everybody's windows. I hate them!" What do you think of this? I am pretty sure you do not agree with such a foolish remark. All flowers are lovely, however plentiful they may be. Shall we all try to have lovely flowers this summer, girls? We can if we only begin in time. Let us each endeavor to make our home the most pleasant place in the world for our dear ones, and to think of a farmer's home as an ideal one.

Your loving old Auntie,
MINNIE MAY.

"A Difficult Step."

Our last picture was sad, but here is a decided contrast. How proud and pleased the wee dancer looks as she practices her difficult step, and surely it must be rather difficult with such a long dress! Some months ago we had Little Pepita dancing to her old grandfather's accordian music in the quaint Dutch kitchen. Here, however, is something quite different, and there seems to be a certain atmosphere of wealth. The attitude is very graceful, particularly in the holding of the castanets; also the young guitarist is most attractive. The instrument is a trifle larger than is generally seen, but perhaps in those times they were larger. Dance on, little girl, with the sweet face and old-fashioned frock—we think that difficult step is nearly perfect.



"A DIFFICULT STEP."

Our Library Table.

THE LOST HEIR. G. A. Henty.—This author is so widely known as one who usually tells of thrilling adventure that a departure from this style comes as a surprise. This is a clever detective story, but on entirely new lines, the unravelling of the mystery being due to reading the motions of the lips—a system largely taught to the deaf and dumb—and, in this story, successfully pursued by two charming young ladies.

RICHARD CARVEL. Winston Churchill.—Few books have been as much talked about this season. It is certainly cleverly conceived, and deals with the olden time when George was king, and England and America were at daggers drawn. The hero is a fine, brave fellow enough in warfare, but in his love affair somewhat timid—but we will not reveal whether this treatment continues, for it would be a pity to spoil the end. Many leading characters of those stirring times are introduced, amongst them William Pitt and Charles Fox. This book will be specially welcome to those who like historical novels. Copp, Clark & Co., Toronto.

IN THE GOLDEN DAYS. Edna Lyle.—As mentioned above of Henty's book, this author departs from her usual style, and instead of (sometimes overmuch) religious argument, gives us a powerful and beautiful story of brave self-sacrifice, which makes the heart glow to read. All Miss Lyle's books are well written and have a noble purpose, and often introduce the same characters, but this is of a different and earlier time.

KIT KENNEDY. S. R. Crockett.—In style much resembling the same author's delightful "Cleg

Kelly." You have Kit from childhood to manhood, and there is that masterly blending of humor and pathos which always distinguishes Crockett's work. Of boys' description he is simply pastmaster, and one cannot help but love them. William Briggs, Toronto. FELIX.

Recipes.

FOR THE BATH OR WASH BASIN.

One pound of oatmeal, 1/2 pound orris root, 1/2 pound Castile soap shaved fine. Mix these ingredients well, and fill little bags of cheese cloth, about the size of a very small egg or large walnut. Leave in the water a few minutes before bathing. This causes a delightfully softening effect on the bath, and is specially suitable for winter.

POLISH FOR OAK.

Two ounces of beeswax (cut fine), 1 ounce of white wax. Cover with turpentine and let stand for 24 hours. Cut fine 1/2 ounce of Castile soap, and dissolve in 1/2 gill of boiling water. Add this to the mixture and shake until it is a creamy liquid.

SLICED EGGS WITH GRAVY.

Six eggs, boiled hard, and, when cold, sliced. One half cup of fine bread or cracker crumbs, to which a little pepper and salt are added. One raw egg, beaten light. One cup of gravy, well-seasoned and heated. Dip each slice of the hard-boiled egg into the beaten egg; roll them in the crumbs. Lay the eggs in a frying-pan in which you have melted some good dripping, and fry until light brown on both sides. As soon as they are done put them into a hot dish and pour over them the boiling gravy.

EGG TOAST.

Beat four eggs all together thoroughly. Put two tablespoonfuls of butter into a saucepan and melt slowly, then pour in the eggs and heat without boiling, over a slow fire, stirring constantly. Add a little salt, and when cooked, spread on slices of nicely browned toast, and serve at once.

GOOD RECIPE FOR A JELLY CAKE.

One cup of sugar; butter the size of an egg; 1 egg; 1/2 cup of sweet milk; 2 teaspoons baking powder; 2 1/2 cups of flour. Bake in layers.

DOLLY YARDEN CAKE.

One-half cup of butter, beaten to a cream; 1 cup of sugar added; and the beaten whites of 3 eggs; 2 cups of flour and 2 teaspoons of baking powder; 1 cup of milk, and flavoring. Use the yolks for icing, and bake the cake in layers.

Dissolution.

Mr. Raggles—"You've been an' made a mistake with my washin', Mrs. Mangles, and sent 'ome three old hankychers as don't belong to me, an' nothin' else."

Mrs. Mangles—"Lor! Mr. Raggles, that ain't hankychers; that is your shirt as 'as come to pieces in the washin' at last."

Begun it First.

An old minister in the Cheviots used, when excited in the pulpit, to raise his voice to a loud half whimper, half whine. One day a shepherd had brought with him a young collie, who became so thrilled by the high note of the preacher that he also broke out into a quaver so like the other that the minister stopped short. "Put out that collie!" he said, angrily. The shepherd, equally angry, seized the animal by the neck, and, as he dragged him down the aisle, sent back the growling retort at the pulpit, "It was yersel' begoud it!"

The Birthday Flower.

For a child's birthday party let the table be decorated with the flower of the month in which the child was born, as: January, snowdrop; February, the primrose; March, violet; April, daisy; May, hawthorn; June, wild rose; July, lily; August, poppy; September, convolvulus; October, hops; November, chrysanthemum; December, holly. Each has an appropriate sentiment attached to it: The snowdrop means consolation; the primrose, youthful sunshine; the violet, modesty; the daisy, innocence; the hawthorn, hope; the wild rose, simplicity; the lily, purity; the poppy, the comfort of sleep; the convolvulus, contentment; hops, aspiration; the chrysanthemum, cheerfulness; holly, foresight and protection.

Smith—One of Jones' sons was an idiot. What became of him? Brown—He got a position as a truck driver, and is getting along well.

Travelling Notes.

AUSTRALIA.

From Sydney to Melbourne we felt particularly at home, for we were not in one of our own Pullman cars? We felt almost like kissing the cushions, but refrained, and slept the sleep of the just—as tired as ever we could be! One thing which strikes very forcibly after the slight rains we get in B. C., is the amount of sand and dust which in this great colony is tremendous, and anything but pleasant. In our railway journey there was much desert-land view, and therefore it lacked the ever-living interest which attended our trip to Vancouver and California. The intense heat, too, is trying. On arriving at Melbourne, the usual run of sight-seeing took place; but, before proceeding to any details, we might say a few words about the origin of so very important a place. Melbourne was founded many years after Sydney. First was discovered Port Phillip Bay, and it was in 1803 that the River Yarra was first seen by a white man. Then the vessel Cumberland sailed from Sydney, under the direction of Charles Grimes, Surveyor-General of New South Wales. After viewing the Yarra in all directions, he decided that the banks would make an excellent and prosperous settlement, and so informed his Government. How would he stare could he see it now as the great City of Melbourne, with half a million population! The ideas of distances seem to be much the same everywhere, for in about 1838 the English authorities seriously contemplated building a bridge from Port Phillip Heads to Van Diemen's Land, only a distance of 100 miles! With such a phenomenal bridge there would certainly have been no holding this colony until it had been placed as the eighth wonder! Melbourne was not finally named until 1837, when the name of the (then) Premier of England—Lord Melbourne—was bestowed. To digress: Our loyal Canadians will remember that it was Lord Melbourne who had to cause our beloved Queen to be roused, at one or two a. m., from her youthful slumbers, to inform her that she was Queen, and to bend the knee of allegiance—an allegiance Victoria the Good has earned and kept, and will keep for ever. God bless the Queen!

What was the chief cause, perhaps, of Melbourne's wonderful advancement was the great gold discovery, when half the world seemed to go mad in its golden greed. Then, in the early seventies, great extension of the railway systems took place all over the country. In 1888 there was a tremendous boom, which, like every other boom, flattened out in a few years and caused much depression, stopping of bank payments, etc. But now all is sunshine again, for things are working on a sure basis, and booms are looked at askance.

Unlike the beautiful Sydney harbor, which so delightfully greets you as the big liner slows up, you are landed at Port Melbourne pier, which is not picturesque by any means; but a very short train trip brings you to the foot of Prince's Bridge, and then you forget the pier. The hotels are particularly fine, and the Grand Hotel may rank with the enormous ones of New York, London, and Paris. The general Post Office is a fine structure—solid, like everything else out here—but, as is the usual thing with almost all general post offices in big cities, it is too small. The only churches we had time to visit were St. Paul's Cathedral (Anglican), which is built in an unfortunate situation, somewhat depressed, where the surrounding buildings, of commanding height, which have gradually grown up near it, greatly dwarf its proportions. Its promoters did not seem to have looked forward sufficiently to the possible growth of the city, and looking backward doesn't do for building purposes, does it? It is to be hoped that eventually a cathedral more worthy of the wealthy class who attend it may be built. In contrast is the magnificent R. C. St. Patrick's Cathedral, and it is almost incredible to believe that the foundation stone of this grand structure was only laid less than half a century ago by Archbishop Goold, and then contemplate how many centuries ago were built the great European cathedrals, so fit is it to be compared to these. No mistake in location here; all seems to have been planned to perfection. A particularly fine building is the Town Hall, and amongst its many advantages may be specially mentioned the great hall, which seats 4,000 people, and its grand organ. The services of a first-class organist are engaged, and an organ recital given every Thursday. We have made special mention only of one hotel—the Grand—but one cannot pass over the Federal Coffee Palace Hotel, which is perfect in every way, both inside and outside. It was built in 1888, and no expense seems to have been spared to make it one of the handsomest hotels in the world. On one side of the vestibule is a public dining-room, or restaurant, which seats 350 people. We have described so many botanical gardens, and all being, of necessity, somewhat similar, a detailed description of Melbourne's botanical garden would be superfluous. It may be of interest, however, to mention its size, as it is as large as the botanic gardens of Sydney, Brisbane and Adelaide combined. There are many beautiful parks surrounding Melbourne, and the Zoo and Aquarium are well worth visiting. There are over a dozen hospitals and homes of various kinds, and all excellently conducted. Melbourne claims the finest race course in the world, which is, of course, claiming a great deal; but the Flemington race course certainly can claim a great deal. The great race for the Mel-

bourne Cup is run on the first Tuesday in November, and is sometimes attended by 200,000 people. Would that we poor travellers had been there just a little earlier than December! The beautiful suburbs of Melbourne are altogether too numerous to particularize; but one must be mentioned, for there we had a picnic to Fern Tree Gully, about 20 miles out. To see those lovely ferns is indeed a sight. The trunks are about from 10 to 30 feet high, the most delicate branches forming an umbrella above them. Fern Tree Gully is a ravine of such picturesque beauty that it seems like an enchanted fairy valley. You can drive or go by rail from Prince's Bridge, and can either start for the Gully at once, or take the wiser plan of a little refreshment first at one of the hotels or restaurants. To reach (nearly 2,000 feet) the summit of the Dandenong Ranges is pretty tiring unless you are vigorous; but the views reward you, and the winding paths and delicious variety of coloring form an undying picture of loveliness. And then you can get a rest, etc., at a little cottage on One Tree Hill (so named because in making the trigonometrical survey the officers left one large tree in the center of an open space as a landmark.) The exquisite fern trees, the lycopods, the polypods, and the wonderful eucalyptus amygdalina (200 to 300 feet high), the myriad mosses, climbing parasites, hazel and musk trees, many varieties of acacia;—well, one's brains are apt to become confused, literally intoxicated, with such splendor, so we will take our courage in our hands and leave Fern Tree Gully—but Fern Tree Gully can never, never leave us. We will go back to Melbourne, for it would hardly be fair not to mention its streets. Collins street is unrivalled, with its long row of palatial buildings and ceaseless traffic. Almost the same may be said of Bourke street, and, intersecting them, Elizabeth street and Swanston street, and ever so many others. The picture galleries are also very fine, and some rare works of art are to be seen in them, which are ever and again added to. The concert halls and theatres are fine and many, for Melbourne has always shown much dramatic and musical taste, and there are few of the leading artists of any nationality who have not appeared on the stage of the fine Princess Theatre. Truly, a city to be proud of is Melbourne—and now we proceed to Adelaide.

His Mother's Songs.

This little poem is re-published at request of a subscriber.—Ed.

Beneath the hot midsummer sun
The men had marched all day;
And now beside a rippling stream,
Upon the grass they lay.

Tiring of games and idle jests,
As swept the hours along,
They called to one who mused apart,
"Come, friend, give us a song."

"I fear I cannot please," he said;
"The only song I know
Are those my mother used to sing
For me long years ago."

"Sing one of those," a rough voice cried,
"There's none but true men here;
To every mother's son of us,
A mother's songs are dear."

Then sweetly rose the singer's voice
Amid unwonted calm,
"Am I a soldier of the cross,
A follower of the Lamb?"

"And shall I fear to own his cause?"—
The very stream was stilled,
And hearts that never throbbed with fear
With tender thoughts were filled.

Ended the song, the singer said,
As to his feet he rose,
"Thanks to you all, my friends; good night,
God grant us sweet repose."

"Sing us one more," the captain begged;
The soldier bent his head,
Then glancing round, with smiling lips,
"You'll join with me," he said.

"We'll sing this old familiar air,
Sweet as the bugle call,
'All hail the power of Jesus' name,
Let angels prostrate fall.'"

Ah! wondrous was the old tune's spell,
As on the singer sang,
Man after man fell into line,
And loud the voices rang!

The songs are done, the camp is still,
Naught but the stream is heard;
But ah! the depths of every soul
By those old hymns are stirred.

And up from many a bearded lip,
In whispers soft and low,
Rises the prayer the mother taught
The boy long years ago.

A Southern Delicacy.

Anyone who has lived south is acquainted with the deliciousness of the "Virginia egg bread"; but everyone may not know how economically that favorite breakfast or tea dish is made. It is nothing more than a mixture of hot boiled rice, say two cupfuls (that left from yesterday's dinner may be reheated); half the quantity of corn meal, an egg or two, a pinch of salt, a lump of butter (melted), a generous sprinkling of baking powder, and enough sweet milk to render all about the consistency of pound-cake dough. This mixture, poured into a well-buttered dish and baked slowly and thoroughly for one hour, will recall to you the old-fashioned rice hockcake, and well reward your small efforts.

Puzzles.

The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c.; 3rd, 50c. This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers—the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Armand, Pakenham, Ont.]

1-CHARADE.

My total tells a story
That made its writer known
To all who love a romance
Of the good old-fashioned tone.
His death we now deplore,
But his fame we hold in store.
First means lone, forsaken;
Second's an article's name;
Third is a verb of two letters;
Fourth and second mean the same.

M. N.

2-TRANSFORMATION.

A stately manner I express
By little letters four;
But by changing their place,
A deep hole you explore.
Put the last to the first,
A Turk's name you see;
Change again, a pronoun (German)
Says, "belonging to me."

M. N.

3-LINKED DIAGONAL (centrals overlap).

1-To make better, and an ancient country.
2-To guide, and a proportion.
3-A mount in Judea, an entry into life.
4-A woman's name, and the highest room.
5-A miraculous food, and a geography.
Down left diagonal and up right outer, courts of a Roman house.

M. N.

4-CHARADE.

There's nothing that will *One* a home,
Whether it be poor or fair,
Like *Two*, which drives the family
To the *Total* of despair.

ROLLY.

5-CHARADE.

When I quarrel with a man,
And come home in great ire,
And look at my favorite
Seated by the fire,
I put *One* my boots,
Leave them down by the *Two*,
Then order some toast,
And perhaps a nice stew.
When I'm hungry no longer,
I sit in my seat,
Puff away at my pipe,
And forget the *Complete*.

ROLLY.

6-SQUARE.

1-A kind of turban.
2-A garb worn by Mohammedan pilgrims.
3-An Egyptian intoxicating drink made of dates.
4-Inclines from a perpendicular direction.
5-Improperly.

ROLLY.

7-CHARADE.

On a floor that seemed as dirty as if it never saw a *FIRST*,
In a home that seemed of poverty the bane,
I saw a little maiden, smiling through a dirty face,
Why, the sight of it would make a miser groan.
In her arms she held a *TOTAL*, and to it thus she sang:
"Ting a ling, a ling, a ling, a lang,
Sleep, my baby, sleep, my *LAST*, why cry?
Why the big tear drop in your eye?
You will be a daddy by-and-bye."
So rock-a-bye, baby, rock-a-bye.

IKE ICICLE.

8-CHARADE.

When I *FIRST* Miss Biddie Marjory Street,
I thought sure a poor day I never would meet,
She looked so angelic, so simple and sweet,
And I thought sure her heart was as big as her feet;
But after the *LAST* was put on complete,
And I tied a knot with my tongue
I couldn't loose with my teeth.
Sure, of happiness I never more saw a peep.
So *TOTAL*, my cousins, is no happy song
When you're tied to a woman whose tongue is too long.
IKE ICICLE.

Answers to Feb. 15th Puzzles.

1-Quoit.
2-Mutton-chop.
3-Hall-low-wed, hallowed.
4-Soprano, tenor, alto, bass.
5-Pearl-eyed.
6-Axiom, aim, mood, loom, Ovid, lax, mix, mild.
7-Prelate, relate, elate, late, ate.
8- e c l a t 9-Madam.
c h a i r 10-Dad, Anna, Bob, Aga, Abba.
l a p s e pop, peep, eye, tot, pup.
a i s l e Nan, Hannah, pap, ewe,
t r e e s nun, gag.

SOLVERS TO FEB. 15TH PUZZLES.

"Diana," M. N., J. McLean, "Rolly," Sila Jackson.

ADDITIONAL SOLVERS TO FEB. 1ST PUZZLES.

M. R. G., J. McLean, Florrie Wherret, Sila Jackson, E. O.

COUSINLY CHAT.

MY DEAR COUSINS,—

I must beg you to be more punctual in sending your work, as your poor innocent cousin at Pakenham is having vials of wrath poured upon her because matter does not reach the editor's office sooner.

Laura F.—Your answer was not quite right, and, in any case, we do not give a prize for one puzzle; the prizes are for the most correct answers during the quarter.

E. O.—It is seldom all the answers are sent in; but whoever has the most correct ones wins the prize. Practice makes perfect. Your puzzle is scarcely up to the standard.

F. A. W.—Your puzzles are rather easy, little girl; but never mind, try again.

Sila.—That No. 8 was a mistake, but as it was the same for everyone, no harm was done.

M. N.—That's a fine budget you sent this time—just got it to-night—nearly snowed up.

Ike Icicle.—I cannot understand your charade beginning. I met a B *FIRST*, etc.

A. A.

GOSSIP.

Mr. Andrew Dunn, Ingersoll, Ont., offers for sale in this issue just such a Standard-bred stallion as many districts require. He is a good looking, sixteen hands high, weighs 1,200 pounds, and is well come. See the advertisement in this issue.

Dr. Duncan McEachran, the chief veterinary inspector of the Dominion, has returned east from the Northwest, where he has been for some time superintending the purchase of horses for the "Starbuck Horse Contingent for South Africa." He purchased over 500 head.

The lambing season at Maple Lodge, Ont., is a busy one for the proprietor, Mr. Alex. W. Smith, who is the active shepherd. During a visit to the farm on March 10th we saw some fifty-one thrifty young Leicester lambs from twenty-seven ewes, with a number of ewes yet to hear from. The flock, including 1899 Royal winners, are all in a very high state of vigor, and are particularly striking in uniformity. The ewes particularly striking in uniformity. The ewes particularly striking in uniformity. The ewes particularly striking in uniformity.

THE SCOTTISH BULL SALES.

At the annual show and sale of Shorthorn bulls at Inverness, in the last week in February, 22 bulls made an average price of £39 5s. 2d. The highest average by a single breeder was made by the selection from the herd of Lord Lovat, whose 3 bulls entered averaged £126. The result was largely due to the high price of 20 guineas received for his roan bull calf, Dewar, calved February 18th, 1899. He was got by Royal Star (71502), and out of Rose of Underley. He won 1st prize in his class, and was bought by Mr. McLennan for Buenos Ayres. The bidding on the second-prize calf did not come up to expectations, and he was withdrawn. The fifth-prize calf was not sold, and the sixth-prize winner, Fitzallan, brought 100 guineas. He was shown by Mr. Macrae, of Clunes, was sired by Scotland's Fame (bred by Mr. Duthie), and out of Flower Girl, by Gold Dust. The buyer was Mr. D. C. Bruce, of Byres.

At the Perth Show and sale, 199 Shorthorn bulls averaged £28 3s. 9d., Lord Lovat again making the highest average for his contribution of 3 bulls, and the highest price of the sale with his first-prize roan bull calf, Mikado, born after March 1st, 1899, sired by Royal Star, and out of Adeline Princess. He brought 240 guineas, and fell to the bid of Mr. Miller, Buenos Ayres. The second-prize bull in the same class sold for 38 guineas, the third-prize one for 94 guineas, and the fifth winner for 100 guineas.

At the Aberdeen Show and sale 164 bulls averaged £21 16s. 5d. The highest prices were 15 guineas for Mr. Crombie's fourth-prize bull in the 2-year-old class, Kitchener, bought by Mr. Reid, Crombybank, and Mrs. Law's first-prize bull in the same class, Lancelot, by the Duthie-bred Proud Star, which went at 108 guineas to Sir Arthur Grant, of Moneymusk. Mr. Durno's contribution of 5 bulls made the highest average, £27. Mrs. Law's New Keig, came second, her 5 making £40 each; Moneymusk and Heatherwick contingents coming next, at £33 12s. and £32, respectively.

NOTICES.

Canadian Engines in Russia.—Geo. White & Sons, London, Ont., are making a shipment of two carloads of portable and stationary engines and boilers to St. Petersburg, Russia. They are to be used for threshing and brick-making. All the bricks in that country previous to last year have been made by hand. This order has been received without any solicitation by agents or otherwise.

Rippley Hardware Co., Grafton, Ill.: Gentlemen,—The more I use your cooker, the more I am pleased with it. We have no trouble heating our hog-pen, 18 by 80 feet, and at the same time heating water for over 100 pigs. I purchased my cooker at the Springfield Fair, of your agent, in the fall of 1898. I can heartily recommend your cooker to any person in need of an article of this kind, as it will do all and more than you claim for it.—J. E. BRETHOUR, Breeder (Oak Lodge) Yorkshire hogs. Burford, Ont., Feb. 3, 1900.

Lardeau Mines.—Among the mines represented by the Scottish-Canadian Mining and Developing Co. is the Rob Roy group in the Lardeau district, which will soon be shipped. Work of development has gone on apace of late. In the Rob Roy group over \$6,000 have been expended in development work since last July by the owners of the group, in order to hasten the day when shipping will commence. The ore is claimed to be improving with every blast, and every indication points to a rich property in these mines. The Company is represented in London, Ont., by A. E. Welch.

Fire Insurance.—Before taking new or renewing fire insurance policies in other companies on farm property, it is worth while enquiring into the security and cheap rates of the London Mutual—the pioneer cheap fire insurance of Canada. The Company was established by farmers, is controlled by farmers, and is yearly increasing its business. Special terms to owners of pure-bred stock. The President of the Company is Capt. Thos. E. Robson, M. P. P., whose connection in stock circles is well known. Write the London Mutual Fire Insurance Co., London, Ont.

USED WITH SUCCESS. CHADBOURN, N. C., Nov. 15, 1899.

Please send me a bottle of GOMBAULT'S CAUSTIC BALSAM. Enclosed is \$1.50. I used one bottle of it when I lived in Wayne Co., Ohio, and saved a valuable horse that had got strained, causing the sheath to swell up as large as a quart measure. I happened to see the account of a similar case in a farm journal, in which they used your remedy with success, so I got a bottle and made one application according to directions, and as soon as it broke and ran I used it to cleanse the sore by mixing it with oil, making it 3/4 oil, and used feather to put it in the sore, and it cured the horse so that no one could tell that anything was ever wrong with him. I have used it for other sores and wounds with like success. J. S. SHAVER.

DALGETY BROS.,

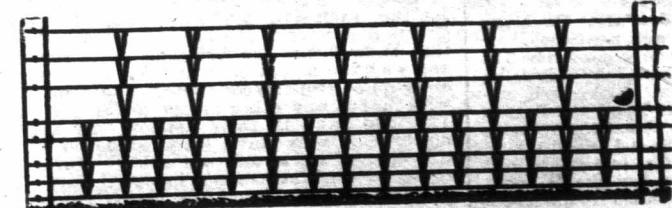
463 King St., London, Ont.



Largest importers in Canada. Fourth consignment has just arrived in splendid condition, and includes some heavy ones. Will be on sale at Black Horse Hotel, Toronto, on and after Monday, March 19th, for ten days, and afterwards at London, Ont. Fifth consignment will arrive second week in March. Have sold more Clydes than all importers combined. A specially good lot of stallions and mares soon to arrive. No exorbitant prices asked.

SMALL PROFITS AND QUICK RETURNS.

Strathy's "HINGE" Stay Field Fence and SINGLE POLE Gates "THE 20TH CENTURY FENCE."



A fence competitor says: "It has no equal."

A trial will convince you also.

The product of years of practical experience, careful study and experiment under the hardest climatic conditions of heavy snow and severe frost in winter and high temperature in summer, with a variation of 150 degrees. Our Spring Post meets perfectly the requirements and overcomes all the difficulties of contraction and expansion, under a variation of 100 degrees of temperature, and has besides a reserve capacity of as much more to provide for great strain and to automatically take up the stretch in the wires. Our "Binge" Stays so act, when under pressure of snow or other weight, that when the weight is removed the fence springs back to place, with Stays unbent and fence uninjured. A system all our own and unlike any other. We use heavy wires—high-carbon spring-steel wire of highest quality—but our system is cheaper and the completed cost less than any other fence. Write for full particulars, and state fully your requirements.

STRATHY & CO., WELLAND, ONT. Agents of ability wanted in every part of Canada.

HOW TO GET A FIRST-CLASS COLLIE

Twelve New Subscribers



Twelve New Subscribers

TO ANY SUBSCRIBER sending us the names of 12 NEW yearly paid up Subscribers we offer a young COLLIE, six weeks old or over, eligible for registration, and bred by Mr. R. McEwen, Byron, Ont., whose stock has been so successful in the leading shows in Canada and the United States.

Bagster's NEW Comprehensive Teacher's Bible,

Containing the Old and New Testaments, according to the authorized version, together with new and revised helps to Bible study—a new Concordance and an indexed Bible Atlas, with SIXTEEN FULL-PAGE ILLUSTRATIONS, PRINTED IN GOLD AND COLOR.

HOW TO OBTAIN IT—

Would retail at from \$3 to \$4. We will send (carefully packed, post prepaid) this Bible to anyone sending us the names of TWO NEW SUBSCRIBERS to the FARMER'S ADVOCATE at \$1.00 each.

Our Self-Binder, HANDY, DURABLE, and ATTRACTIVE.

Made to contain the 24 issues of the year. We will forward this Binder, post-paid, to anyone sending us the names of two new subscribers and \$2.00.

"Canada's Ideal," OUR NEW PREMIUM PICTURE, a Magnificent Engraving of Shorthorns.

Representative prizewinners from all parts of the Dominion. We will send one of these handsome pictures (size, 24 x 36 inches) to any one sending us two new subscriptions to the FARMER'S ADVOCATE.

Cash price of Picture, \$1.00.

ADDRESS The WILLIAM WELD CO., Limited, London, Ont.

Wanted at once

Single or married man. Must understand farm work and machinery. Also first-class herdsman. Address, with references, W. D. FLATT, MILLGROVE, ONT.

AUCTION SALE: Registered Shorthorns.

3 bulls—2 years, 1 year, 8 months. 2 cows—3 years and 5 years. 2 heifers—2 years and 4 months. SALE, April 6th. Full particulars from F. J. BARBER, Prop., or J. A. BELL, Auclt., Georgetown, Ont.

WANTED—By April 30th, 1900, a married man, good worker, who understands farming in all its branches, also the feeding and care of dairy cattle, and is a good milker. Must be reliable, honest and trustworthy. Salary, \$300 per year; free house, garden, firewood, and a good percentage on pure-bred Ayrshire stock sold. Permanent situation to suitable person. Must have first-class references. Address: JOHN A. McDONALD Jr., Williamstown, Ont. Scotchman preferred.

FOR SALE AT REDUCED PRICES.

1 No. 7 Alexandria Cream Separator. 1 No. 1 Alexandria Cream Separator. 1 Springer Cream Separator. 1 Springer Cream Separator Bowl. 1 Iron Cheese Press. 1 Wooden Cheese Press.

Cheese Factory for Sale

THE undersigned administrator of the estate of the late Henry S. MacLam offers for sale the cheese factory and furnishings known as the Mawlam Grove Factory, situated in the Township of Dawn, on the Sydenham River, near the village of Sheldahl. Terms easy. If not sold, will rent. Good patronage to the right man. Apply to MRS. H. S. MAWLAM, Florence, or STUART, STUART, ROSS & NUCKE, her solicitors, Glenora.

OAKLAWN FARM

as ever, greatly excels all other establishments in the quality and numbers of its PERCHERONS and FRENCH COAGNERS. ON HAND: 229 STALLIONS—234 MARES. Home bred and imported, including a few CHOICE SHIRES. At the Illinois, Iowa and Michigan State Fairs of 1898, Oaklawn's exhibits in 22 stallion classes won 18 first prizes. Prices and terms reasonable. DUNHAM, FLETCHER & COLEMAN WAYNE, DU PAGE CO., ILLINOIS.

FOR SALE: Hackney Stallion

3-YEAR-OLD Hackney Stallion. Winner of 7 first-prizes at Toronto and London, and also a silver medal given by the English Hackney Horse Society. Five Clydesdale colts, two coming 1 year old, two coming 2 years old, one coming 3 years old. Also a choice lot of fillies, 1, 2 and 3 years old. D. & O. SORBY, QUELPH, ONT.

Imported Shire Stallion

FOR SALE. A winner at two Toronto Spring Horse Shows; big ringer, good looker; good action, clean, flat bone; active, sure foal-getter, and all right. Just the sort to leave big, useful, sound stock. Address: JOHN SEMPLE, BOX 73, TOTTENHAM, ONT. BARRED PLYMOUTH ROCKS—Eggs from my pen of pure-bred prizewinning stock, at \$1 per setting of 12. Order early. Address: W. G. LANDBOROUGH, Clinton P. O., Ont. GENTLEMEN,—I beg to acknowledge receipt of the beautiful engraving, "Canada's Ideal," and to thank you for the same. The study of this picture is an education in itself, and I am sure every lover of good cattle will appreciate its merits. It should be especially valuable to young stockmen as an aid to the study of beef type, as well as Shorthorn type, and your enterprise in giving to the public such a notable collection should meet with the hearty approval of our breeders. G. E. DAY, Ontario Agricultural College, March 13th, 1900.

GOSSIP.

The list of British exhibitions—200 in number—for 1900 has been issued. It is expected that they will to some extent be prejudicially affected by the war.

W. & G. Telfer write: "The description we gave of our sheep, as appeared in connection with our, was correct so far as we know. Mr. Clayton, shepherd for the Pagham Harbor Co., told Mr. Hamner that the ewes won 1st and champion at the Royal Counties. J. J. claims his first at the Royal. So they were, but not at the Royal Counties. As regards the ram, the statement was also correct, having won four out of six firsts. We wrote to Mr. Hamner for a statement, but he has not answered yet. This is the reason why we have not answered sooner. As these are correct, we will not have any further correspondence on this subject."

G. A. Brodie, Bethesda, Ont., writes:—"Sales of Shorthorns are brisk. Since writing you, a month ago, I have made the following sales: 11 bulls and 1 heifer calf to Robt. Miller; 4 bulls to Union Agr. Society, Nova Scotia; 1 bull to Cornwallis Agr. Society, N. S.; 1 bull, 1 cow and calf, and 3 heifers to R. S. Starr, Port Williams, N. S.; 1 bull to O. Chas. Cornwallis, N. S.; 2 bulls to S. McGilgill, Ormstown, Que.; 3 heifers to E. Parker, Barnston, Que.; 1 bull calf, 1 cow, and 1 heifer to P. Thornton, Barnston, Que.; 1 bull to R. Daly, North York, Que.; 1 bull to Chris. Wideman, Gormley; 1 bull to Port Hope Syndicate, Port Hope. In all 35 animals, and 11 last month, making a total of 47 animals since Xmas. Some of my best are still on hand, and I offer at very reasonable prices.

Mr. J. W. Barnett, manager for W. C. Edwards & Co., Rockland, Ont., writes:—"Our late sales of Shorthorns have been: Miss King to Gorman & Lynch, Douglas, Ont.; bull, Scottish Duke, to Mr. Albert Hagar, Plantagenet, Ont.; bull, Duke of Bellevue, to Mr. Arch. Deman, Ashton, Ont.; also bull out of Dussie of Rockland, and got by Scottish Knight, to Mr. John Gamble, Cumberland, Ont.; to Mr. N. F. Wilson, Cumberland, as foundation for a herd; the imp. cow, Orinda 5th, with her ten-months heifer calf, Orinda 5th, also the two home-bred heifers, Village Beauty and Mayflower 3th. Mr. Wilson is making a good start and will make his mark as a Shorthorn breeder. To another new beginner, Mr. Neil Robertson, Arnprior, the two-year-old heifer, Bellbird, with her nice heifer calf at foot got by Marquis of Zenda (imp.). Marquis of Zenda is doing well, and his calves are coming all that we could wish for. We have a few very good young bulls yet on hand, also a few yearling and two-year-old heifers. The latter all safe with calf to Marquis of Zenda. Our new importation are nicely settled in their new quarters and are doing well; a number of them are close to the calving. Since getting the young bulls home we can spare our old stock bull, Scottish Pride 5th. He has left us some good calves and we don't like to part with him, but we cannot keep them all."

SMITH EVANS' OXFORDS. At Mr. Smith Evans' farm, near Gourock, Ont., a few days ago, our attention was specially directed to his flock of Oxford sheep, and although we have visited that gentleman's farm several times in as many years, we have never found them in better condition. (30 in all) have started to drop their lambs, which are coming extremely uniform in size and color, and if we can estimate from those heard from, the firm will be able to report a yield above the average. In aged ewes, Mr. Evans has a few individuals which would be hard to duplicate in this country or abroad. They are as uniform in size, color and fleece as is possible to breed; while in shearings and ewe lambs he will have some specially strong classes to select from for the coming fall fairs. In rams, they have the aged sheep which Mr. Adams sent out as a ram three years ago, and proved himself a winner wherever shown. He is a strong, good sheep, and has proven himself a highly satisfactory stock-producer. The uniformity of color and fleece in his progeny are marked qualities which any Oxford breeder must recognize. The shearing ram imported last year is also advancing quite satisfactorily, while in the home-bred ram lambs the flock certainly never was stronger. Mr. Evans has labored patiently and faithfully with the breed, and, as in the past, has always held his own, and frequently the big end, in the leading shepherds of America—a feat which he is likely to accomplish in the future with fair play. Watch his offerings.

HEREFORDS BRING BIG PRICES—SOTHAM'S BULL, THICKSET, SELLS FOR \$5,100. At the four days' series of sales of Hereford cattle, held at Kansas City, February 27th to March 2nd, very satisfactory prices were made in spite of the great snow storm which prevailed on the first two days, delaying trains and preventing many intending buyers from attending.

Mr. F. B. Sotham, Chillicothe, Mo., made the highest averages, his 24 bulls averaging \$286.65, this result being largely due to the exceptional price of \$5,100, made by the 4-year-old bull, Thickset 63883, purchased by Wm. Humphrey, Ashland, Neb. Grandee, another 4-year-old bull, sold for \$1,500, and Sir Correcor, 26 females sold at this sale averaged \$286.15, the highest price being \$600 for a daughter of Correcor, and the whole 30 head of Mr. Sotham's cattle averaged \$454.70. The offering from the Sunny Slope herd of Mr. C. A. Starnard, Emporia, Kan., 49 head, averaged \$273; the highest for a bull was for son of Salisbury, \$410, and for a female, \$630, for Robertha, a daughter of Wild Tom. The 30 head offered by W. S. VanNatta & Son, Fowler, Ind., made an average of \$304.30; the highest price for a bull being \$600, for Grove Cherry Boy 2nd, by Cherry Boy 2nd, and for a female, \$625, for Miss Betzy 2nd, by the same sire. In this sale we note that 2 bulls and 2 heifers are credited to W. H. & H. A. Hunter, Orangeville, Canada.

The 6th sale was that of Scott & Mast, Bolton, Mo., of which 48 head averaged \$264. The highest price for a bull was \$420, and for a female, \$433. None of the animals in this sale were over 24 months old. The Whitesides are evidently holding their own in the West.

Important to Breeders and Horsemen. Eureka Veterinary CAUSTIC BALSAM.



A reliable and speedy remedy for Curbs, Splints, Spavins, Sweeney, etc., etc., in Horses, and Lump Jaw in Cattle. See pamphlet which accompanies every bottle, giving scientific treatment in the various diseases. It can be used in every case of veterinary practice where stimulating applications and blisters are prescribed. It has no superior. Every bottle sold is guaranteed to give satisfaction. Price 75c. per bottle. Sold by all druggists. Our-anted remedy for sterility in cows, with full instructions. Price, \$2. Prepared by The EUREKA VETERINARY MEDICINE COMPANY, London, Ont.

EDWARD R. HOGATE COMPANY

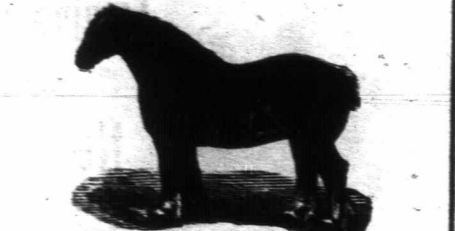
IMPORTERS OF Shire, Clydesdale, Hackney and Coach Stallions. We have them on hand from 3 to 5 years old. Shires and Clydesdales, weighing from 1,800 pounds upwards, and Hackneys and English Coach horses from 16 to 17 hands high, full of life and superb action. Write now for particulars and where you can buy the cheapest. Our last importation from England arrived February 1st, 1900. Terms to our customers.

EDWARD R. HOGATE, 264 Arthur St., TORONTO, CAN. Barns: 84 and 86 George Streets.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages.

"LYON MACGREGOR."



Stallions and Colts

From the best blood in Scotland and Canada. Ayrshire bulls and heifers from imported stock. Jersey heifers and bull calves, sired by the prize-winning bull, Distinction's Golden. Best milking strains, with good tests. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

IMPORTED CLYDE STALLION FOR SALE. Large and stylish, heavy-boned and a first-class breeder. JOHN JOLL, Hampton P. O., West Durham Co., Ont.



Clydesdales FOR SALE.

The largest stud of superior imported Clydesdales in Canada; 15 stallions of different ages, warranted pure, sound, and money makers; inspection invited. Those horses are not got up for show purposes, they are fed and exercised with a view to usefulness.

Also 1 aged Hackney Stallion.

JOHN BELL, Clydesdale Farm, Amber P. O., E. R. York, Ont. Agency of Station, C. P. R. or G. T. E. Terms and application.

NOTICES.

Ear Tags.—We were surprised to learn from Mr. R. W. James, at Bowmanville, Ont., of the extent to which his business of making ear tags has increased during the past twelve months. The gentleman has been brought in close touch during that time with many of the largest flock and herd owners in the country, who have applied to him for this class of supplies, and the fact that their second and further orders came is proof of Mr. James' ability to execute an order on short notice in a satisfactory manner. He informed us that he is in a position to furnish ear punches to correspond with his labels at a moderate cost.

National Cream Separators.—Upon visiting the Raymond Separator Co.'s office, at Guelph, Ont., a short time ago, that firm gave us the assurance of the benefit they have derived through the FARMER'S ADVOCATE advertising by ordering a continuance of their ad. throughout the entire year. They are delighted to learn that their labors are bringing them reward, and we know no reason why Canadian energy and capital, properly conducted, should not cope with that of any other nation under the sun. The firm have in their employ only expert machinists, who have been educated along this line of work, and are able to turn out to-day a machine perfect in detail from the ground up, with the greatest capacity possible for the labor to run it. See their advertisement and send for a catalogue.

Thorold Cement Works.—During a call at the Thorold Cement Works at Thorold, Ont., Mr. Battle informed the writer that the grinding of their cement had been for fifty years under the constant personal supervision of one man, and that the grinding was carried out as perfectly as machinery and human skill could accomplish. The firm report an exceedingly active trade in cement within the past two years, and find it necessary to increase their output to keep pace with the growing demand. They are able to report a very large demand having sprung up in different sections of this and other Provinces, accountable, no doubt, from the high quality of their cement, combined with their prompt and gentlemanly manner of conducting their business, aided by the assistance of their experts, who are educating and lending their aid to intending builders. The firm report that their Mr. Hager is in much demand, and from the highly complimentary testimonials in their possession from their many influential patrons, it is gratifying to see a business so widespread as theirs meeting with such universal success.

Where Bell Pianos and Organs are Made.—Approaching Guelph, Ont., on the Grand Trunk Railway, from either east or west, the first important establishment that presents itself is the factory of the Bell Organ and Piano Co. It was in 1864 this present business was established in a very small way, but the foundation was right, and the structure of the concern was just as substantial, as is proved by the fact that weekly shipments are now made to Europe, South Africa, South America, New Zealand, and Australia, and constant consignments to every part of our own Dominion. The demand for Bell instruments has grown out of their genuine merits. Their construction is based on accepted scientific lines, which, with the selection of the choicest materials, produces a perfectly-beautiful instrument every part of the instrument. The Company is always pleased to have its friends visit the factories and inspect every portion of the work.—There are no mysteries about piano building, and every detail will be cheerfully explained. Hundreds of different things are embodied in a piano, and the Bell Co. makes it an absolute law that every item, no matter how small or trifling, shall be of the very best. Their piano and organ catalogues are always ready for distribution to those who write for them. See their advertisement in this issue.

Queenston Cement Works.—While in the vicinity of Niagara Falls, we took a run out to the Queenston Cement Works, and there found Messrs. Usher & Son concentrating their energies along the line of cement production and building plans. The former, through its extensive introduction, has led up to an endless enquiry for assistance in the latter. Mr. Usher the line of architecture, having placed his services at the command of his numerous patrons, who fully appreciate and avail themselves of them. Sanitation has always occurred to Mr. Usher as of the greater importance, and from his practical turn of mind has given much attention to the matter of ventilation, a subject which he has under perfect command, and bases his theory upon demonstrated mechanical facts, the details of which have been previously explained in the FARMER'S ADVOCATE. Mr. Usher built a new house last year with cement from the ground to the eaves, including partitions, and it would be hard to find a more compact and comfortable structure in the country, the cost of which was low, indeed, as compared with other materials. The appointments, from a point of convenience, are complete in detail, while the interior finish is in keeping with their surroundings. The firm have enlarged the farming interests in the purchase of some 30 or 40 acres of good stock land adjoining their plant, and intend erecting a barn with stabling accommodation for 120 pure-bred Shorthorn cattle; in fact, the firm have made a commencement along this line in the purchase of 20 or more Shorthorn females of various ages. In looking over their premises, we noticed that they had collected representative specimens of the Mississippis, Bright Eye, Indian Chief, and the Newfangled strains, through different branches of the sire-stocks. Mr. Usher instructed us to state that he is open to exchange cement for good Shorthorns at any time, and parties having such for disposal, who contemplate building within the near future, will be able to make a mutual exchange. We may therefore reasonably look forward to Queenston Heights being the home of a choice and important herd of Shorthorns, if we can estimate by Mr. Usher's perseverance, taste and business acumen.

W. D. FLATT, Hamilton, Ontario, Can., Importer and breeder of Shorthorn Cattle.



GOLDEN FAME (IMP.)—26056—(72610). My herd is one of the largest in America, both imported and Canadian-bred. A very choice selection of both sexes always on hand for sale. Personal inspection invited. Address all communications to: JAMES SMITH, Mgr., Millgrove, Ont. R. R. Station and Telegraph, Hamilton, on main line Grand Trunk RR.

A Few Durham Heifers In Choice. Two bulls; two bull calves; all of choice breeding. Berkshire hogs; brood sows and sow pigs. Prices right.

A. J. C. SHAW & SONS, THAMESVILLE, ONT.

FOR SALE: A choice Shorthorn bull, 18 months old, and one 11 months.

FOR SALE: Two Shorthorn bulls, 21 months old, and one 11 months.

FOR SALE: Imported Clydesdale Stallion No 9053. Bay, with both hind feet white, and strip in face Foulled 1889. Will weigh about 2,000 lbs. Sired by Prince of Wales 673. Dam by Darnley 222; 2nd dam by Old Times 579; 3rd dam by Sir Colin 1290, etc. For further particulars apply to: O. A. COATES, Bothwell, Ont.

FOR SALE: The Standard-bred Stallion, Morelight (9337)-Record, 2.30. Sired by Twilight (315), by Hambletonian (10). Dam, the great brood mare, Lady Carr, by American Clay (34). Stands 16 hands; dark seal brown; weight, about 1,200 lbs. Winner of the sweepstakes at Western Fair. Price reasonable.

FOR SALE: SHORTHORN COWS, HEIFERS, and YOUNG BULLS, descended through imported Prime Minister, on scotch-bred cows of high dairy quality.

FOR SALE: 3 Shorthorn Bulls and a few females by Indian Brave, Bold Britain, and Scotland's Fame, out of straight Scotch females.

FOR SALE: SPRINGBANK FARM. Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale.

FOR SALE: John Miller & Sons, BROUGHAM P. O. and TELEGRAPH OFFICE. OFFER FOR SALE: 4 Imported Clydesdale Stallions. 10 Scotch-bred Shorthorn Bulls. PRICES REASONABLE.

FOR SALE: SHORTHORN BULLS AND HEIFERS. Cruickshank and other Scotch sort, headed by (imp.) Kauckle Duster. Herd has furnished the Fat Stock Show champion three out of the last five years. Correspondence invited.

FOR SALE: Exeter Station, G. T. R., half mile from farm.

H. SMITH, HAY, ONT.

PLEASE MENTION FARMER'S ADVOCATE.



(73610) America, both in choice selection. Personal communications: Grove, Ont. on, on main line on

sons, WILLE, ONT. bull, 18 months choice Cotswold on, Jarvis, Ont. 21 months months. Salsam, Ont.

No 9053. Sired by 222; 2nd dam 1290, etc.

well, Ont. (9337). Dam, Ameri-an Clay brown; weight sweepstakes at ersoll, Ont.

LE: FERS, and high imported cows of high BROWN, O. ONT.

Bulls d Britain, and ch females. ANNIA, ONT. FARM. and Bronze Tur- RTON, ONT.

Sons, ICE, Stallions. n Bulls. ONABLE. ring Stn., T.R.

HEIFERS t, headed has fur- sion three spondence

ITH, MAY, ONT. ADVOCATE.

GOSSIP.

FOR WORLD'S FAIR VISITORS. The Secretary of the Canadian Commission to the Paris International Exhibition, 1900, has written to say that the Canadian Commission have an office at No 10 Rue de Rome, Paris, France, where Canadian visitors can have their letters addressed and receive assistance of every kind through the Commission.

ROBT. TUFTS & SONS' JERSEY CATTLE AND YORKSHIRE SWINE. While in the vicinity of Tweed, Ont., a member of the FARMER'S ADVOCATE staff called on the above firm, and found them along the line of progress in live-stock matters, and as they have added new and commodious facilities for the accommodation of their well-kept herds, we may reasonably look forward to future prominence along the line of high-class Jersey cattle and Yorkshire swine production.

PLEASED WITH OUR ADVERTISERS. D. C. Matthews, of Montreal, writes: "Enclosed please find \$1 in payment of my subscription. A few months ago I purchased a farm near this city, and wishing to get some first-class stock, I cut out a number of ads. from the ADVOCATE and mailed to advertisers, asking quotations on what I wanted. What I want to say is this: I could not have received more courteous or businesslike treatment. I trusted to the honor of these men to ship without my having the opportunity of inspecting the stock. So far I am well pleased, and if the animals yet to be received are as good as those to hand, I will start in with as fine a lot of animals as anyone could desire. It seems to me this reflects credit on your selection of advertising patrons. I derive much useful information from the ADVOCATE.

Clydesdales for Canada. Messrs. Dalgety Brothers, of Dundee and London, Ont., shipped two useful horses from Glasgow by the Amarynthia on Feb. 13th. These were the good horse Market Day (8028), bred by Mrs. Dickie, in Bute, and at one time owned by the late Mr. Hugh Andrew. His sire, Chaslar (4291), was the Bute premium horse, and a son of Darnley, while his dam was the handsome big mare by Drumflower Farmer (286), known to everyone in the West of Scotland. Her dam, Buteshire Kate (81), was a first-class mare and a noted winner. The other horse shipped is Golden Craig (9917), purchased from Mr. Alex. Simpson, Whitecross, East Kilbride. This well-bred horse was got by Lord Blackburn, the son of Macgregor and a Prince of Wales mare, which bred well in West Lothian, and his dam was Nell of Westcraig (3770), by Prince of Renfrew (664). Both are weighty horses, and should make seasons in Canada.

NATIONAL SHEEP BREEDERS' ASSOCIATION. The last meeting of the council of the National Sheep Breeders' Association, held in London, England, on February 27th last, was one of world-wide interest from the fact that the programme of the National conference of Sheep Breeders, to be held at York in June next, during the week of the Royal Show, was adopted. Invitations to attend this conference have been sent to all known Sheep Societies throughout the world, and at the time of writing there have been intimations received from Tasmania, New South Wales, New Zealand, Uruguay, Natal, Argentina, etc., that delegates will be sent, some 6 or 8 having already been nominated. What steps the Canadian Societies may take, we have not yet heard, but it is inconceivable at so important a gathering of breeders of registered sheep that Canada will be unrepresented. The programme provides for the adoption of regulations to facilitate the transfer of registered sheep from the record books of one country to those of another, and means to prevent the substitution of unregistered for registered sheep; the issue of export certificates, veterinary inspection, and a certificate of health and the advisability of holding periodical conferences of representatives of Sheep Breeders' Societies.

BROOKBANK HOLSTEIN SALE. Mr. A. Rice's sale of Holsteins, which occurred on the 28th of February, at Currie's Crossing, Ont., was very successful. The day was very disagreeable, snow falling all day, which, no doubt, kept several from a distance, and certainly many local men, at home. However, there was a very fair attendance, several coming 200 to 400 miles, and those who were there were on hand for business. The sale was started by leading out the well-known public test winner, Daisy Texal 2nd. It soon became apparent that most every one there had a hankering for this fine young cow, and it was no trouble to get bids until the \$200 mark was reached; then there was a lull until Mr. Walter S. Schell, a local man, made it \$210, and she was knocked down to him. The keen contest for this "plum" of the sale warmed things up several degrees—people forgot all about the cold, and the sale went through with a good "swing"—not, of course, so high, but much better than sales generally go. Prices for females over three years ranged from \$70 to \$100. Some heifer calves reached \$55 each; also some bull calves reached \$35. A gentleman from Peterboro came all the way to buy Winnie Win's bull calf, sired by Calamity Jane's Paul, and secured him at \$55. Yearling bulls sold as high as \$60. Mr. Wm. Simmons, New Durham, who has a nice herd of pure-bred Holsteins, secured Winnie R. De Kol to head his herd. He is a very fine animal, from a great dam and sire. Dr. Robt. Craik, Montreal, secured the imported bull, Monk Lyons 3rd (two years old), at \$65, and he also secured three cows. The herd was very widely scattered, most purchasers getting but one or two. The sale made a clean sweep of all owned by A. Rice, but Geo. Rice, who has taken such an active part in building up this herd, continues the business, and has some 25 head of choice animals. He has always been prominent in public tests, and will surely be on hand in future as in the past. It will be noticed by our advertising columns that a son of Daisy Banks, winner of the Toronto milk test, 1898 and 1899, is now offered for sale. As room is scarce at present, he will be sold very reasonable to quick buyer. A full description of the very complete private creamery built by Geo. Rice the past year appeared in our Xmas edition. It is Mr. Rice's intention to further enlarge his barn, build another silo, and maintain a strictly up-to-date methods.

HIGH-CLASSED Auction Sale of Thoroughbred Shorthorn Cattle AND COTSWOLD SHEEP.

The following registered Shorthorns will be sold on the farm of FITZGERALD BROS., Mount St. Louis P. O., Simcoe Co., Ont., on TUESDAY, MARCH 20, 1900: 19 Cows and Heifers. Those of breeding age, bred to Imp. British Statesman (63729)—30833—7 Export Steers and 4 Beef Heifers. 15 young Bulls ready for service, and 16 Ewe Lambs. The above cattle are of the highest quality of improved Scotch breeding. Catalogues will be furnished on application. Trains will be met on day of sale at Coldwater and Phepston on G. T. R. Sale starts at 2 o'clock p. m. TERMS—Nine months' credit will be given on furnishing approved joint notes. 6% per annum discount for cash. Hillsdale Telegraph Office.

10 Imported Shorthorn Bulls ALL SCOTCH.

21 IMPORTED HEIFERS. ALL SCOTCH. 21 IMPORTED HEIFERS. ALL SCOTCH. ROYAL MEMBER (94741)

Heifers all in calf to imported bulls. Also a number of first-class home-bred animals of either sex. The oldest home-bred bull we have was calved in April last. Correspondence or a personal visit solicited. Catalogues on application. H. CARGILL & SON, CARGILL, ONT. Cargill Station and Post Office on G. T. R., within half a mile of barns.

20 - Imported Scotch Shorthorns - 20 2 BULLS, 1 and 2 YEARS OLD; 14 HEIFERS, 2 YEARS OLD; 4 YEARLING HEIFERS.

THIS importation came out of quarantine on the 12th July, and representatives of many of the leading Scotch families are amongst them, including Minna, Brawith Buds, Secrets, Mysias, Beauties, Lady Mays, Lustres, etc. The home-bred herd contains Indian Statesman—23004—, and 15 young bulls from 6 to 18 months old, and 50 cows and heifers of all ages Registered Shropshires, yearling rams and ewes, ram lambs from Imp. Flashlight. Any of the above will be sold at reasonable prices. Correspondence or a personal visit solicited. Catalogues on application. Burlington Junction Station and Telegraph Office, G. T. R., within half a mile of farm. W. G. PETTIT & SON, FREEMAN, ONT.

ARTHUR JOHNSTON Greenwood P. O. and Telegraph Office,

8 SHORTHORN BULLS 8 Scotch-topped And a few females, sired by Revenue and Bonnie Lad, a son of (imp.) Blue Ribbon. ROBT. DUFF, G. T. R. and C. P. R. - o Myrtle, Ont. SCOTCH SHORTHORN BULLS AND HEIFERS HERD ESTABLISHED IN 1872. Such sires as imported Royal George and imported Warfare have put us where we are. Imported Blue Ribbon now heads herd. A. & D. BROWN, ELGIN COUNTY. - o IONA, ONTARIO.

5 SHORTHORN BULLS Of the most noted Scotch families, and choice individuals. For prices and particulars write SHORE BROS., White Oak.

1865 FOR SALE: 1900 Scotch Shorthorn Bulls Sired by Prime Minister (Imp.) and Guardsman (Imp.), out of dams tracing direct to the best Scotch herds. Also a few females. JOHN GARDHOUSE, Highfield, Ont. Weston Stn. C.P.R. and G.T.R.

4-SHORTHORN BULLS-4 For Sale. From 5 to 15 months. A few young cows or heifers; color red; good pedigrees. JAMES BROWN, Thorold, Ont.

Hillhurst Farm. ESTABLISHED 1864. Scotch Shorthorns. SIREN IN SERVICE: Scottish Hero and Joy of Morning. BRED BY W. DUTHIE, COLLYNIE. Oldest Stud of Hackneys in America. Shropshire, Dorset Horn and Hampshire Down Sheep. M. H. COCHRANE, Hillhurst Station, Compton Co., P. Q.

SHORTHORN CATTLE AND LINCOLN SHEEP. Imp. The Baron 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.



WORTH \$50 A BOTTLE To This Man It may be worth a like sum or even more to you.... Flagal, Bruce Co., N. D., March 19, 1898. Dear Sir—I have used your Kendall's Spavin Cure and think it a good medicine. I have cured a Spavin on my last mare, and I would not take \$100 for her, which I offered for \$75 before. I will be pleased to have your book and receipt for this instant stamp, as I read on the card. Truly yours, FRANK SMITH, Hurlington, P. O., Ontario, Mar. 6, '98. Dr. R. J. Kendall Co. Dear Sir—Enclosed please find a two-cent stamp for your valuable Horse Book. I had one but it is lost. I have used your Kendall's Spavin Cure without one failure in years, and consider it the best medicine for same or best in the market. Please send me the book as you advertise it on bottle, for horse. GEORGE BROWN. It is an absolutely reliable remedy for Spavin, Splints, Curbs, Ringbones, etc. Removes the humor and leaves no scar. Price, \$1; six for \$5. As a Hintment for facility use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE, also "A Treatise on the Horse," the book free, or address DR. R. J. KENDALL CO., KENOSHA FALLS, VT.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS. We are offering 5 young bulls for sale, of first-class quality, and AI breeding. Wm. Grainger & Son, Leamington, Ont.

8 SHORTHORN BULLS 8 From 8 to 10 Months. Thick-fleshed reds and roans, out of Bates-bred Scotch-topped dams, and by Lord Stanley 4th, twice a winner at Toronto. Registered Yorkshires later. G. & W. GIER, Grand Valley, Ont.

SHORTHORNS I have six young females for sale—three are in calf and three old enough to be bred. These heifers have four or more crosses of the finest Booth sires, on imported Marr and Gordon Castle foundation, a desirable and needed line of breeding. D. ALEXANDER, Bridgen, Ont.

I am prepared to offer at reasonable prices, for a short time, a few very choice young registered Shorthorn Bulls and Heifers in good health and fine growing condition. SIMCOE CO., Coldwater Station. SAMUEL DUNLOP, Eady, Ont.

SHORTHORNS Two choice young bulls, 17 months old; also a number of young cows and heifers. A. P. ALTON & SON, Burlington Jct. Station, Appleby P. O., Ont.

JAS. DORRANCE, SEAFORTH, ONTARIO, BREEDER OF Shorthorn Cattle and Berkshire Pigs Young stock always for sale.

ASHTON FRONT VIEW STOCK FARM. Four Shorthorn Bulls for sale, from 8 to 15 months old; all of choice breeding. Also Cotswolds of all ages for sale at all times. Visitors welcome. A. J. WATSON, Castlederg, Ont. G. T. R. Station and Telegraph Office, Bolton; or G. T. R., Palgrave.

SHORTHORNS. Stock bull, Kinellar of York—2504—, by Imp. Kinellar Sort; 1 bull 16 mo. old, and one 8 mo. old, dam Kompare 53rd. Cows and heifer 74, some of them the same family as the first and second prize cows at Provincial Dairy Show, London. F. MARTINDALE, York P. O., Ont.

R. & S. NICHOLSON SYLVAN P. O., PARKHILL STATION. Scotch Shorthorns, Imp. and home-bred. The Imp. Clipper bull, Chief of Stars, heads the herd. Eight extra good 2-year-old heifers for sale, in calf to Chief of Stars (7215). Inspection invited.

Clover Leaf Lodge SHORTHORNS A number of choice young bulls, heifers and cows, excellent milking strains. Correspondence invited. R. CORLEY, Belgrave P. O., Ont., and G. T. R.; Wingham, C. P. R.

Shorthorns. At easy prices, 10 good young bulls, from 3 to 15 months old. Also 10 heifers and young cows with calf at foot or served by Imp. Prince William, now at head of herd. R. MITCHELL & SON, Burlington Jct. Station, Nelson, Ont.

GOSSIP.

Mr. H. F. Brown, Minneapolis, Minn., will hold his 21st annual Shorthorn sale on March 26th, 1900.

R. H. Bull & Son, Brampton, Ont., write: "Our Jersey cattle are doing very satisfactory work in the dairy, and sales recently have been encouraging. We have yet a few of those richly-bred, beautiful yearling bulls for sale. We think them fit to head any herd in America."

Mr. Richard Gibson, Delaware, Ont., informs us that in a letter recently received from his brother, Mr. A. S. Gibson, manager of the estate and herds of Mr. Philo L. Mills, Riddington, England, he states that he has sold to Mr. W. D. Flatt, of Hamilton, Ontario, 35 head of high-class Shorthorns, which will be included in his next importation. At last account Mr. Flatt had purchased 54 head in England and Scotland, so that his importation is likely to be on a pretty large scale.

Mr. F. S. Peer, of Mt. Morris, N. Y., sails for England and the Islands of Jersey and Guernsey, April 7th, and will be pleased to have commissions for all kinds of blooded stock. He has made twelve very successful importations without loss or accident. Send for circulars and estimate cost of stock required. Mr. Peer is acknowledged to be one of the best judges in America of dairy breeds of cattle and Hackney horses, and has made importations for many Canadian farmers, giving entire satisfaction, both as to the quality of the stock and reasonableness of expenses. He is strictly reliable and honorable in all his dealings.

The Donaldson liner, Amaranthia, which recently sailed from the Clyde, had on board a valuable shipment of Ayrshire cattle for Canada. The animals belong to Mr. Robert Reford, Fredonoch Farm, St. Anne de Bellevue, Quebec, and have been selected with considerable care and skill in the south-west of Scotland by his manager, Mr. Boden. In all, sixteen head were purchased, but nineteen head were shipped, as three of the cows calved before they left Glasgow. At the head of the consignment was the bull, Lord Dudley of Drumscue 2045, which was purchased from Mr. James Walker, Kirkmuir, Stewarton.

We present to our readers in this issue an illustration of the Holstein-Friesian cow, Belle Koradyke 13913, foundation cow of the Koradyke family owned by Henry Stevens & Sons, Lacona, Oswego Co., N. Y. This cow was officially tested by a representative of Cornell University, under the rules and regulations of the Holstein-Friesian Association of America, and won first prize for the cow making the most butter of any cow officially tested in 1898-9. The results of this test show that her milk during the seven days of her official test averaged over 4 per cent. butter-fat. Her production of 55.7 lbs. butter in 7 days has been equalled by only two cows, viz., Netherland Hengerveld and De Kol 2nd, which are also members of the Brookside herd of Messrs. Stevens.

R. & W. CONROY'S JERSEYS, CLYDES, AND TAMWORTHS.

At Deschenes Mills, Quebec, 5 miles from the City of Ottawa, is the fine stock and dairy farm of Messrs. R. & W. Conroy, who have in operation one of the best-equipped private creameries in Canada, from which they supply a high-class city trade with first-class butter. They are increasing their herd of Jersey cows to 75 head, and the creamery plant is run by electricity generated at their extensive mills near by. The foundation of the herd of registered Jerseys was laid by the purchase of a famous contingent from the herd of Miller & Sibley, Pennsylvania, and the bull at the head of the herd is Ida's Rioter of St. Lambert 27th 4570, a 2-year-old son of Ida's Rioter of St. Lambert, one of the most richly-bred and prepotent sires in America, his dam having a record of 17 lbs. 15 1/2 ozs. butter in a week. The cows in the herd are typical of the breed and are not only descendants of large-producing cows, but are high-class workers themselves, some of them giving as high as 45 lbs. milk daily, testing 4 1/2 per cent. butter-fat, and one having given 7,000 lbs. milk in 8 months, while the young bulls held for sale—and the young heifers in the herd as well—are models of beauty and prospective usefulness. Half a score of first-class Tamworth breeding sows are in stock and in farrow to prize-winning boars, and due to farrow early this spring. An imported Clydesdale mare and several excellent Canadian-bred mares are in foal to Ottawa Chief, a high-class horse of extra good breeding. This establishment was fully described in the Christmas number of the FARMER'S ADVOCATE.

DAVID A. MACFARLANE'S AYSHIRE.

During a visit in the vicinity of Huntingdon Co., Que., we were directed to the stock farms of Mr. David A. Macfarlane, whose home is at Kelso. In 1888, Mr. Macfarlane purchased two Ayrshire cows from the late Jas. Stephen, Front River, Que., and upon them laid the foundation of what promises to become a famous herd. The cows selected were Maggie and Jennie of Brook Hill, daughters of Rob Roy of Huntingdon, a son of Duke of Argyle and out of Lord Dufferin's daughters. Upon these and their descendants have been employed sires of the most approved type and from the leading strains. In 1892, Mr. Macfarlane added Kelso Boy and Lady Sterling, by Silver King, to his herd from Mr. D. McLachlan's, and to the services of that bull lies much of the credit for his strong, uniform string of big-producing cows. Following Kelso Boy, Mr. Macfarlane employed a son of Lady Sterling, by Mr. Stephen's Uncle Sam, out of the famous Nellie Osborne, and in him added quality and dairy-conformation, which can only be attained through the introduction of blood from such wealth. A few days previous to our visit, Mr. Macfarlane had purchased a young bull to head his herd, from the noted Lachine Rapids farm, out of one of Mr. Ogilvie's imported cows, which is the ideal Ayrshire type, possessing a vigorous constitution with splendid quality; and from the material which we were shown, we would consider his chances very good to attain fame in the near future, as his owner's management is such as will develop and bring out the best features of the stock in his care. Mr. Macfarlane usually has a few choice females for disposal, and interested parties will do well to note his offerings from time to time.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman—17947—, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply on T. E. ROBSON, Ilderton, Ont.



BONNIE BURN STOCK FARM

Forty rods north of Stouffville Station, offers for sale (5) five grand young Shorthorn bulls, good breeding and excellent quality, at very moderate prices. Write for what you want. D. H. RUSSELL, Stouffville, Ont.

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS—An excellent lot of young bulls, and a special value in young cows and heifers in calf to our imported Knuckie Duster.

LEICESTERS—Imported and home bred—the best.

ALEX. W. SMITH, MAPLE LODGE P. O., ONT.

J. & W. B. WATT,

Salem, Ont., Offer for sale the four-year-old imported Clydesdale stallion,

Heather Bloom (10203), Six Shorthorn Bulls

Fit for service. Elora Station, C. P. R. and G. T. R.

SCOTCH SHORTHORN BULLS FOR SALE.

3 yearlings, got by Strathallan Chief, by the celebrated Indian Chief; thick-fleshed, superior in form; colors dark and light roan. Write or call on EBEN SUTHERLAND, Bennington, Ont.

SCOTCH SHORTHORNS and BERKSHIRES.

Choice young bulls and heifers for sale. Also Berkshire pigs of the most approved breeding. Meadowvale Stn, C.P.R. Six miles from Brampton, G.T.R. S. J. PEARSON & SON, Meadowvale, Ont.

5--Shorthorn Bulls--5

From 9 to 15 months. Also a few choice yearling and 2-yr.-old heifers, among which are grand, thick-fleshed and choicely-bred animals, mostly solid red colors. Speak quick, for they will not last long. STOUFFVILLE STATION, G. T. R. G. A. BRODIE, BETHESDA, ONT.

FOR SALE: TWO CHOICE SHORTHORN BULLS.

om: GAVIN BARBOUR, Crosshill, Ont.

GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared.

Address—SYDNEY FISHER, 17-yo ALVA FARM, KNOWLTON, P. Q.

2 Thorough-bred Hereford Bulls for sale—1 and 2 years old.

W. R. COLEMAN, "Oakdale Farm," Cookstown P. O., Ont.

Ingleside Herefords

CHAMPION HERD OF CANADA.

75 head of Herefords of show-yard character, headed by the champion bull, MARK HANNA (74230).

This herd is rich in the blood of "Corrector," "Ancient Briton" and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

TAMWORTH SWINE. Bacon type, high quality, low prices.

H. D. SMITH, om COMPTON, QUE.

40 HEREFORDS

Bulls, Cows, and Heifers, for immediate sale.

Alfred Stone, 5 Douglas St., GUELPH, ONT.

GOSSIP.

Messrs. D. & O. Serby, Guelph, Ont., change their advertisement in this issue, offering young stallions for sale. From the breeding stock in this stud, and the judgment exercised in mating and rearing, there can be no risk in travelling even a long distance to see these colts.

Mr. S. J. Pearson & Son, Meadowvale, Ont., in writing us regarding a change of advertisement, say that they have three very fine young Shorthorn bulls and some nice yearling and two-year-old heifers they can spare, also a lot of the best Berkshires they have ever raised. Among winter sales were a show sow for Manitoba and a boar to go to Calgary, N.-W. T. Watch Messrs. Pearson's offerings.

ANOTHER CHAMPION SHORTHORN SOLD.

We learn that Capt. T. E. Robson, M. P. P., has sold to Mr. C. E. Ladd, of Oregon, U. S., the famous bull, Topman—17847—, winner of the championship in 1899 at the four great Canadian exhibitions held at Winnipeg, Toronto, London, and Ottawa. Topman has made a great record as a prizewinner without protest, and holds a very prominent place in "Canada's Ideal."

POSTPONED SALE OF SHORTHORNS AND COTSWOLDS.

The stock sale of Fitzgerald Bros., Mt. St. Louis, Ont., advertised to be held on March 8th, had to be postponed, on account of inclement weather and the impassable condition of the roads, until Tuesday, March 20th. Messrs. Fitzgerald write us that in spite of the bad weather quite a number of Shorthorn breeders were on hand on the 8th inst., prepared to buy, but all considered it wise to postpone the proceedings till the date we have mentioned. There are some good young heifers in this sale, and a number of fine females, including the two extra fine heifers, Cherry Watt and Miss Carolina, which are particularly thick and even.

ROBERT DUFF'S SHORTHORNS.

We had occasion, in a former issue of the FARMER'S ADVOCATE, to draw attention to the line of breeding and special management of the herd of Shorthorn cattle of Mr. Robert Duff, at Myrtle, Ontario, and as we again return to the subject we cannot but be impressed by the particularly favored surroundings for Shorthorn cattle in this section, as his farm is not only particularly adapted to stock-raising, but with as many good herds in as close proximity, upwards of a dozen large herds being located within two hours' drive, and twice that number of fine females, owned by the same lines. Mr. Duff has taken advantage of this fact, and is well prepared to-day to carry out his ideal occupation with equipments and stock exceeded by few breeders of his age in the country. A variety of foundation breeding is represented in his 30-odd pedigrees, many of them tracing direct to imported sires, such as the subject of the Rose Flower, by Sussex (imp.), and out of Roan Berry (imp.), and Matilda, by Abonye (imp.), figure conspicuously in the early history of the herd, but by no means compose the entire female foundation, for the daughters of Red Emperor, Char, Bonnie Lad (by Blue Ribbon, imp.), and Revenue, are among the good Scotch-bred females, are here represented, and since our visit we are informed that imported Royal Member—17107—(64741), one of the very best and most noted sires of the breed in Canada, has been selected from the herd of H. Cargill, during the time of our visit, we were shown some growthy, useful young bulls, carrying such blood in their veins as we have before stated, and as they are being brought up under most careful and thorough management, they will prove good, safe investments for any breeder desiring well-developed sires. We overheard Mr. Duff say that he might sell a few females; therefore, watch his offerings.

SPRING BROOK STOCK FARM.

Mr. A. C. Hallman, New Dundee, in writing us to change his advertisement, says: "It is now admitted that the Holsteins are 'The Queen of the Dairy.' Every inch of ground they hold they have won by actual performance either at the stall, the churn, or at the public test, in total solids or butter-fat. My young imported herd bull, Judge Akkrum De Kol 3rd, No. 25356, is doing remarkably well. For prime quality, breeding, finish, and fine dairy points, he exceeds anything that ever stood at the head of the Spring Brook herd. I am expecting great results from this bull mated to my herd of selected females. I have several cows due to calve soon. It should not be forgotten that this bull is strong in the blood of De Kol 2nd, Netherland, Pietertje, and other noted sires. The dam, Mosetta, No. 32983, gave 58 lbs. of milk as a 3-year-old, on common feed, and is a half-sister to Netherland Hengerveld, which has made the largest official record of any cow ever tested, viz., 26 lbs. 10 1/2 ozs. butter in one week. My other stock is doing well and is in nice shape. The most recent sales are a very rich-bred bull, full of quality, to De Kol, Munro, Maxville, Ont.; also very fine bull to Mr. A. Dunn, Ingersoll, an old customer.

My Tamworths are of the right kind, full of quality, great length, and of the proper type. Have just received a letter from Mr. J. K. Brethour, Burford, who selected for me my imported champion prizewinning sow, Whitacre Countess 2nd; also my Royal Beauty, Whitacre Crystal, and British King, winner at Toronto, 1899. In this letter was enclosed a fine cut of the sow, Whitacre Beauty 8338, Eng. This sow is a daughter of my champion sow, Whitacre Countess 2nd, and won first and champion at the Royal Show, 1899, and she is now in farrow to British King. I have a very fine lot of sows bred for March litters, and also a number of young boars and sows from fall litters, sired by my imported boars. Some of the most recent sales is a very handsome boar sold to Levi Master, Haysville, Ont.; a very nice imported boar went to Miller & Ferguson, Spencerville. The demand for hogs is good, and the lot I offer ought to please anybody.

My Bred Plymouth cockerels are a rare lot—big, strong, well-barred birds, very much in type like the old bird that won first prize at Hamilton last winter in a strong class.

F. W. STONE ESTATE, GUELPH, ONTARIO.

The first Hereford herd established in Canada by importation in 1859 of the best prize-winners of England, followed by repeated further importations, including winners of first prize at Royal Agricultural Show. Choice young Hereford Bulls for sale. Also McDougall's Sheep Dip and Cattle Wash, fresh imported, non-poisonous and reliable; thoroughly tested by over forty years' use on farms of above estate.

Wm. Willis, NEWMARKET ONT.

Jersey Cattle (St. Lambert). Some fine young bulls for sale at farmers' prices, if taken at once. Also Cotswold sheep.

ST. LAMBERT OF ARCFOST 36943

whose sire was 189 Per Cent.; dam St. Lambert's Diana 6951. Official test, 18 lbs. 6 ozs. in seven days. A few choice young bulls and heifers rich in blood, from deep and rich milked dams, for sale at moderate prices. Tuberculin tested.

H. E. WILLIAMS, Sunnyside Farm, - KNOWLTON, P. Q.

Deschenes Jersey Herd.

Headed by Ida's Rioter of St. Lambert 27th.

4 young bulls fit for service—registered. Also Tamworth sows and diploma herd, Canada Central Fair, Ottawa, 1898.

R. & W. CONROY, DESCHENES MILLS, QUEBEC.

DON JERSEY HERD.

Offering choice young Bulls and Heifers by Costa Rica's Bull.

DAVID DUNCAN, DON, ONTARIO.

Nine miles from Toronto Market.

BRAMPTON JERSEY HERD.

Brampton's Monarch (imported), Canada's champion bull, 1898, head of the herd, which numbers 25 head. Now for sale, high-class cows and heifers in calf, heifer calves, and 6 extra choice young bulls, sired by Monarch, the best we ever saw. They are from tested show cows. A few high-grade springers.

R. H. BULL & SON, BRAMPTON, ONT.

Jersey Cattle

THAT WILL PUT MONEY IN YOUR POCKET.

Mrs. E. M. Jones, Box 324, BROCKVILLE, ONT., CAN.

GLLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lambert), out of tested cows. Grand individuals. Prices right.

FOR SALE: 10 Jersey Heifers

From 3 to 12 months old, all by my imported bull, Illinois Oomph 34311, and all out of imported dams. A rare chance to secure some of the best Island blood at very low prices. Address:

F. S. PEER, Mt. Morris, N. Y.

Maple Grove offers Holsteins of all ages, of the very richest breeding and choicest individuality, at prices within the reach of all. High-class bulls a specialty. For prices and description, write

H. A. BOLLEKT, Cassel, Ont.

FOR SALE: Sir Pietertje Burkey DeKol

THE 10 NOS. HOLSTEIN BULL. His dam, Helena DeKol's DeKol, tested officially 362 lbs. 10 1/2 ozs. milk and 12 lbs. 7 ozs. butter in 7 days as a 2-year-old. Also Sir Pietertje Pride, calved last March. Both bulls in prime breeding form. Maggie Keys and other good ones in the herd. Correspondence solicited.

A. D. FOSTER, HOLLOWAY, ONT.

The Annandale Farm

Holstein-Friesians.

For sale, after careful selection from my thoroughbred and grade bull calves, ages from 1 to 15 months old, from cows averaging 10,000 to 18,000 lbs. milk per year and testing 3 1/2 to 4%; sired by the grand bull, COLANTHUS ABBEKER 2nd, winner of 1st prize at Toronto, Ottawa, and London, as yearling. Prices reasonable.

E. D. TILLSON, Proprietor, Tilsonburg, Ont.

Maple Glen Stock Farm.

Special. For immediate sale. 10 choice females of rich breeding. Quality Tops... Blood Best... Offer... Some are prize-winners. Prices Reasonable.

winner; others bred to bulls of rich merit, ranging in age from one to eight years old. Also a bull one year past, and a couple of Sylvia DeKol August bull calves. C. J. Gilroy & Son, Glen Enoch, Ont. Brockville, on C. P. R. or G. T. R.

Ayrshires, Guernseys, Yorkshires and Shropshires are our leaders.



ALL high-class, pedigreed stock. Those desirous of purchasing thoroughbred animals should write for particulars at once.



ISALEIGH GRANGE FARM, Danville, Quebec. J. N. GREENSHIELDS, Prop. T. D. MCCALLUM, Mgr.

W. C. Edwards AND COMPANY. IMPORTERS AND BREEDERS. Pine Grove Stock Farm, ROCKLAND, ONTARIO.

Ayrshires, Jerseys, Shropshires, Berkshires.

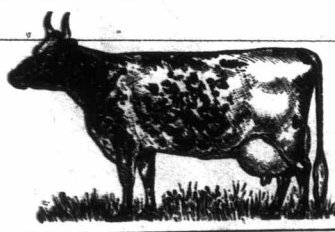
Our smallest aged herd of Ayrshires is headed by our best imported bull...

Scotch Shorthorns and Shropshires.

The imported Missie bulls, Marquis of Zenda and Scottish Pride, at the head of herd...

AYRSHIRES and YORKSHIRES.

We now offer 2 yearling bulls cheap to make room for young calves. A Sept. and Oct. bull calves...



I now offer a 2-year-old HOLSTEIN BULL. Dan Dairy Bucks, winner of Toronto milk test, 1898 and 1899.

Ayrshire Bull Calves of 1899

3 YET on hand, and more to come within the next month, from some of our best imported cows.

Holstein Bull Calves of 1900 for Sale.

OUT of such cows as Fietertje, Hartog DeKok, Belle Burke, Nechtshilde, Inka Darkens...

Maple Cliff Dairy and Stock Farm

Ayrshires and Tamworths for Sale: 1 yearling and 5 fall calves, and a number of heifers.

Holstein Heifers, coming 2 years old

THEY are of the richest and most productive strains, fine individuals, and bred to as good bulls as there are living.

AYRSHIRES FOR SALE.

The kind that can speak for themselves. Size, constitution, dairy and show combined.

RIDGEDALE HOLSTEIN-FRIESIANS

For Sale: One yearling bull, also three bull calves, all sired by "Father Time."

4 AYRSHIRE BULLS 4

Sired by Beauty Style of Auchenbrain (Imp.), whose dam gave 72 lbs. milk in one day...

3 Holstein-Friesian Yearling Bulls

Three Yearling Heifers, sired by Calanthus Albrecht bull, and in calf to Daisy Teak's King...

Kicking Cows.

Stop your cows kicking, increase the flow of milk by the use of SORE TEAT SALVE.

MAPLE HILL HOLSTEIN-FRIESIANS

Three Yearling Heifers, sired by Calanthus Albrecht bull, and in calf to Daisy Teak's King...

Wm. Mole, Veterinary Surgeon

443 Bathurst St., TORONTO.

FOR SALE:

Six choice young Shorthorn bulls—bargains for quick sale. A few heifers could be spared.

J. A. James, Nilestown, Ontario.

KEEP THE BOYS ON THE FARM BY sending them to Meadowside Farm, Carleton Place...

Choice Ayrshire and Holstein-Friesian Spring Calves.

At \$12.00 each, from deep-milking strains. Breeding stock all registered.

HICKORY HILL AYRSHIRES.

A few choice dairy bulls for sale, or will exchange for first-class fresh milk cows, if taken at once.

GOSSIP.

Mr. Geo. F. Weston, Superintendent of Mr. Vanderbilt's farms at Biltmore, N. C., has recently purchased from Juneman & Berry...

THE HILLHURST IMPORTED SHORTHORNS. Hon. M. H. Cochrane, Hillhurst, Quebec, writes:—I am pleased to say that our recent importation of Scotch Shorthorns are now safe at Hillhurst.

DR. A. SMITH SUCCEEDS MR. J. J. WITHROW. At the first meeting for organization of the Toronto Industrial Exhibition Association...

OFFICIAL TESTS OF HOLSTEIN-FRIESIAN COWS, FROM JANUARY 1 TO FEBRUARY 1, 1900. These tests are uniformly made by representatives of agricultural colleges or experiment stations...

Summary.—Eight cows five years old or over, average per cow 441.6 lbs. milk, containing butter-fat equivalent to 18 lbs. 7.3 ozs. butter at 80 per cent. fat to the pound...

Five cows between three and four years old, average per cow 402.5 lbs. milk, containing butter-fat equivalent to 17 lbs. 7.9 ozs. butter at 80 per cent. fat to the pound...

Ten cows under three years old, average per cow 286.5 lbs. milk, containing butter-fat equivalent to 12 lbs. 2.6 ozs. butter at 80 per cent. fat to the pound...

The two most remarkable are those of Beryl Wayne, a cow between seven and eight years old, with a product of 24 lbs. 3.8 ozs. butter at 80 per cent. fat...

J. M. GARDHOUSE'S CLYDESDALES, SHORT-HORNS, AND LEICESTERS. Always up to date and improving is the stock found on the farm of Mr. J. M. Gardhouse...

Prominent among the females of the herd is Imp. Jenny Lind, bought at W. D. Flatt's sale, sire Matadore (67461) by the Duthie bull, Prince of Fashion (64587)...

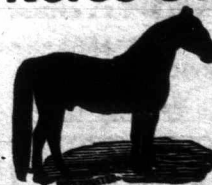
MR. COLIN CAMPBELL. DANESFIELD, MARLOW, BUCKS. who will be happy to make arrangements for inspection, or to quote prices.

FAMOUS ALL OVER THE WORLD. ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHEWSEBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England...

J. E. CASSWELL, Laughton, Folkingham, Lincolnshire. breeder of Lincoln Long-wooled Sheep, Flock No. 46.

Horse Owners! Use



Caustic Balsam

A safe speedy and positive cure. The safest, best BUSTER ever used. Takes the place of all liniments for mild or severe action.

LITTLE'S PATENT FLUID (NON-POISONOUS) SHEEP DIP AND CATTLE WASH. THE ORIGINAL Non-Poisonous Fluid Dip.

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

For sheep. Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

No danger, safe, cheap, and effective. Beware of imitations. Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash...

W. W. Chapman, Secretary of the National Sheep Breeder's Association, Secretary of the Kent or Romney Marsh Sheep Breeder's Association, and also Secretary of the Southdown Sheep Society.

The Danesfield Pedigree Stock. IMPORTERS desirous of securing selections of either Shire horses, Aberdeen-Angus cattle or Hampshire Down sheep should inspect the stud, herd and flock, property of Mr. R. W. Hudson...

FAMOUS ALL OVER THE WORLD. ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHEWSEBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England...

J. E. CASSWELL, Laughton, Folkingham, Lincolnshire. breeder of Lincoln Long-wooled Sheep, Flock No. 46.

The flock was in the possession of the present owner's great-grandfather in 1785, and has descended direct from father to son without a single dispersion sale.

At the "Annual Lincoln Ram Sale," 1895 and 1897. The 1896 rams were all sold for exportation. Ram and ewe hoggs and shearlings for sale, also Shire horses, Shorthorns, and Dark Dorking fowls.

ADDRESS
Belleville Business College.
 BELLEVILLE, ONTARIO.

Great Work

IS BEING DONE THIS TERM IN THE
Central Business College,
 of Toronto, where 12 regular teachers are employed, and over 300 students are in attendance. This is a big school, and a popular school, to which business firms look for skilled help. Eleven young people went direct from college to situations during one week, ending Feb. 15th. Enter any time. No vacations. Write for prospectus.

W. H. SHAW, Principal.
 SPRING TERM OPENS APRIL 2nd.
CENTRAL Business College
 STRATFORD, ONTARIO.
 A school that enjoys a large patronage, has large staff of expert teachers, gives superior training, and produces best results. Write for our prospectus.
 W. J. ELLIOTT, Principal.

HOME STUDY
 Young farmers who would like to get a business education, but who have not the time or, perhaps, the means, should procure some suitable books, and study at home during the long winter evenings. The

NORTHERN Business College
 OWEN SOUND, ONT.
 has published a series of Business Books, which are not only suitable for use in the college, but are excellent for home study. Subjects—Bookkeeping, Commercial Law, Correspondence, Mensuration, and Commercial Arithmetic. Write for descriptive book circular to
 C. A. FLEMING, Principal, Owen Sound, Ont.

WOODSTOCK Business College
 AND SHORTHAND SCHOOL.
 Students enter any time. Increased teaching staff. The best that can be had is given. Write for particulars.
 H. M. KENNEY, PRINCIPAL, WOODSTOCK.

Persianic Sheep Dip and Animal Wash.

A NON-POISONOUS LIQUID "DIP."
 Kills Ticks. Kills Red Lice. Heals Wounds.
 Greatly Improves quality of WOOL.
 For Horses, Cattle, and Pigs.
 Removes all insects. Thoroughly cleanses the skin.
 Leading "STOCKMEN" endorse it as the CHEAPEST and most EFFECTIVE "Dip" on the market.
 SOLD BY ALL DRUGGISTS, 50 cents PER QT. Special rates in larger quantities.
 MADE ONLY BY
The Pickhardt Renfrew Co. LIMITED,
 STOUFFVILLE, ONT.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.
 At the Perth Aberdeen Angus show and sale, Feb. 25th, Sir Geo. McPherson's 1st prize yearling bull sold for 30 guineas, or about \$1,200, said to be the highest price ever given for a bull of the breed at public auction in Britain. Mr. W. S. Ferguson, Pictouville, being the purchaser. His sire, Blum, held the record before, being bought for 20 guineas. The 2nd prize winner, Mr. Wilber's Fashion Prince, brought 20 guineas from a New Zealand company. The 3rd prize bull brought 10 guineas, and the 4th prize winner, Mr. McLean's Ben Vankin, went to Col. McInnes at 10 guineas. Two hundred and sixty-seven bulls made an average of 427 lb. M., and the 43 head in the sale (bulls and females) averaged 425 lb. M.

At Aberdeen, Feb. 25th, 28 Angus bulls sold at an average of 422 lb. M., and 21 cows and heifers at 428 lb. M. each. The highest price for a bull in the older class at this sale was 32 guineas for the 2nd prize winner, Statesman, from Cynachia, but the 1st prize winner in the younger class, Mr. John Finlay's Fortness, sold for 125 guineas to Mr. Deacon—the highest price of the day.

Mr. John Campbell, of Fairview Farm, Woodville, Ont., writes: "Have sold the Clydesdale stallion advertised in your columns recently (and could have sold him over and over again)." He orders a change in his advt. to an offering of Shropshire rams, as is seen in this issue. "Their breeding is of the very best; that, combined with superior individual merit throughout the breed, opens for selection, makes a most desirable lot to secure a high-class stock ram from. In no flock of Shropshires, according to its numbers, can so many near descendants of the four most famous Shropshire rams on either side of the sea be found as in the flock of Mr. Campbell. I refer to Newton Stone, bred by Mr. A. M. Gordon, and sired by the Highland Society champion, Corner Stone, dam, King Star of Westport, the price named was \$300, and was considered prohibitory, but the price does not seem to count with the South American buyer—he must have what suits him. The bull is said to bear a strong resemblance to his sire, being a rich roan."

A HIGH-PRICED SHORTHORN.
 Mr. W. R. Whigham, a Dummer Arves buyer, has recently purchased Mr. Alex. Robertson, Bellefleur, Bellingham, the 2-year-old bull, Newton Stone, bred by Mr. A. M. Gordon, and sired by the Highland Society champion, Corner Stone, dam, King Star of Westport. The price named was \$300, and was considered prohibitory, but the price does not seem to count with the South American buyer—he must have what suits him. The bull is said to bear a strong resemblance to his sire, being a rich roan.

CANADIAN FAIRS AND EXHIBITIONS.
 The Canadian Association of Fairs and Exhibitions elected officers for the ensuing year as follows: President, T. J. Murphy, Simcoe; 1st Vice-President, John B. B. Wray; 2nd Vice-President, James Mitchell, Guelph; Secretary-Treasurer, Alex. McFarlane, Otterville. Executive Committee—T. F. Wallace, Woodbridge; K. Jackson, Newmarket; William Laithlaw, Guelph; G. E. Vassant, Markham; S. McClure, Elmer's Mills; J. W. Sheppard, Cayuga; James Beaman, Simcoe; Auditors—J. M. Goodhouse, Highfield; J. Y. Murdock, Jarvis.

JAMES BROWN'S SHROPSHIRE.
 The Shropshire herd of Mr. James Brown, of Thorold, Ont., whose advertisement will be found in this issue, was established in the early '80s on good foundation stock descended from imported Beauty by Snowball, and Imp. Lilly, by Warden, excellent milking tribes and good beef producers as well. Another useful family is founded on Imp. Agnes, by Lord of Bessville, and these were for many years bred to high-class Bates bulls. In the last ten years good Scotch-bred bulls have been used, among which was Brideman 12th, by Prince Albert, tracing to Imp. Fanny—125—; King Mina—2008—; by Noreman, and tracing to the Imp. Scotch cow, Minerva, bred at Kinellar, and Governor Stanley. The present stock herd is Crimson Gem—2523—, by Vice Regent, and of the favorite Scotch-bred Crimson Flower tribe. The cows are large, lustrous animals, and by judicious mating the young things are fleshy, thrifty, and promising to make even better animals than their parents.

ROBERT NESS & SONS' CLYDESDALE AND AYRESHIRE, AND POULTRY.
 The stock at the Woodside and Burnside farms of R. Ness & Sons, at Horick, Quebec, are coming through the winter in fine condition. The imported Clydesdale stallions are superb in form, size and quality, and are receiving the best kind of treatment to ensure usefulness and satisfaction to purchasers and patrons. The Ayreshires are up-to-date in breeding type, and capacity for work about forty cows being due to calve during the present year. Among these are upwards of a dozen daughters of Golden Guinea, who left the Guinness stamp on all his produce in color of skin, quality of handling, and size and form of milk vessels, his progeny and family winning more honors than any other at the World's Fair. Among the younger are many meritorious daughters of Matchless, the great son of such great parents as Imp. Glencairn 3rd, and Imp. Nellie Osborne, female champion of the Columbian Exhibition. A number of excellent young bulls are held for sale, including a handsome bull calf, imported in his dam, a prizewinner in Scotland. The herd won at the Ottawa Exhibition last year, in strong competition, a round dozen prizes, including the sweepstakes for best bull of any age, and first prize for young herd. The stock bull is imported Duke of Clarence of Barchinot, a model of the modern stamp of Ayreshire, and one of the very best in the Dominion. A high-class stock of utility poultry is kept, and includes Barred and White Plymouth Rocks, Light Brahma, Bantams, and W. Ramdotes, also Pekin, Roupen and Cayuga ducks, China geese, Bronze turkeys, and fancy pigeons.



THE NATIONAL FARM Cream Separator

Manufactured by the Raymond Mfg. Co. of Guelph, Limited, manufacturers of the celebrated Raymond Sewing Machines.

THE National is an up-to-date machine, leading all others in separating cream by centrifugal force. It is the farmer's choice, because it runs easy, skims fast and clean, and makes a perfect cream, containing any per cent. of butter-fat desired. It is also easier to clean than any other. The National is built of the very best material suitable for the construction of a high-speed machine, and with proper care should last a lifetime. The bearings are interchangeable and easily adjusted. Every machine is guaranteed to do good work, and a trial of the "National" is solicited before purchasing any other. The already large sale of the "National," and the growing demand for it, shows how much the Canadian farmer appreciates a Canadian-made machine that does its work so easily and well, and at the same time returns such a large profit on the small investment. Ask for the "National"; try it and buy it.

THE CREAMERY SUPPLY CO.,
 GUELPH, ONT.,
 General agents for Ontario.

MESSRS. CAMPBELL & GLENN,
 381 TALBOT ST.,
 LONDON, ONT.,
 Agents for the Counties of Middlesex and West.

"NATIONAL" NO. 1 HAND POWER. Capacity, 350 to 550 lbs. per hour.

The Raymond Mfg. Co'y of Guelph, Ltd.
 GUELPH, ONT.



Liecestershire Tick and Vermin Destroyer
 To Farmers, Stock Dealers and Wool Growers:
 For Sheep, Cattle and Horses.
 It effectually destroys Ticks, Lice, Worms or Grub, to which sheep, horses and cattle are subject, and enables the animals to thrive. It will be found far superior to other preparations used for the similar purpose. The proprietors will guarantee perfect success when used according to directions, as will be found on each box. It prevents scurf and scab, and renders the wool bright and clear. It is put up in tin boxes, price 30 cents each. One box is sufficient for twenty ordinary-sized sheep. It only requires to be tried to prove itself all that is claimed for it. Sold by druggists and grocers. Manufactured by G. C. BRIGGS & SON, 31 King Street West, Hamilton, Ont.

FAIRVIEW SHROPSHIRE RAMS.
 From the greatest winning flock in Canada. Excellent rams to head flocks offered. Good individuals by leading winners.
 Different combinations of "Newton Lord," "Fair Star," "Montford Dreamer," and the \$1200 "Rudington Eclipse" blood freely found in the offering. The four most famous Shropshire rams known. Blood will tell! It pays well to have the best.
JOHN CAMPBELL, Woodville, Ont., Can.

Shropshires...
 Ram lambs for sale, at reasonable prices.
GEORGE HINDMARSH,
 AILSA CRAIG, ONT.

Shropshire Rams and Ewes
 Newly imported from the greatest English breeders. Home-bred rams and ewes of best quality. Scotch Shorthorns and Clydesdale horses for sale at moderate prices, and in large numbers, by
ROBERT MILLER,
 STOUFFVILLE, ONT.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.

CALVERT & DWYER CO'Y, WOOL

TORONTO, CANADA.
 Write us before selling your wool. It will pay you.

Oxford Down Sheep
 Flock Established 19 Years.
 Have a few ewes of different ages for sale, in lamb to imported ram.
HENRY ARKELL,
 ARKELL P. O., ONT.
 Guelph: Telegraph and Telephone.

SMITH EVANS, GOUROCK, ONT.
 Breeder and importer of registered Oxford Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited.
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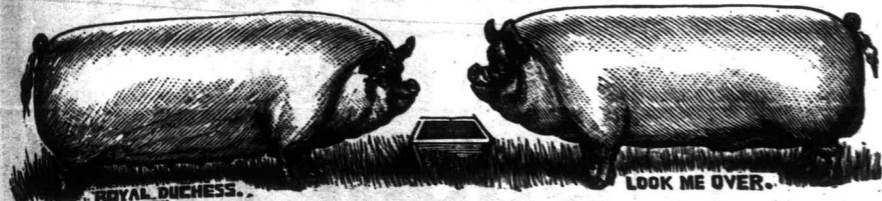
DUROC-JERSEY SWINE.
 We have a fine lot
First-Class Stock
 of all ages and either sex. Address,
TAPE BROS., Ridgeway, Ont.

SNELGROVE BERKSHIRES AND COTSWOLDS.
 We can supply singly, in pairs, or trios, not akin, or in larger numbers, registered Berkshire pigs and Cotswold sheep of the highest class. Young boars fit for service, sows old enough to breed. Young pigs 6 to 8 weeks old. Ram lambs and ewe lambs. Write for prices and particulars.
SNELL & LYONS,
 SNELGROVE, ONT.

Berkshires and Tamworths
 My herd has Varna Duke and Manor Lad (2nd prize 6-months boar at Toronto, '99) at head, with equally well-bred sows.
 My Middleton Mimulus, and O. A. C. 110 (the silver medal sow at London in '88), her son Parkhill Prince, and Nimrod imp. at the head. Write for what you want
W. I. TUMELTY, Madoc, Ont.

Summer Hill Herd

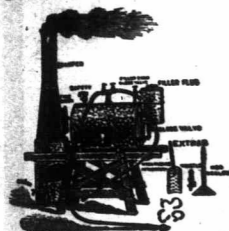
HEADQUARTERS FOR THE IDEAL BACON HOG.



The largest herd of pedigreed Yorkshires of the large English type in Canada. Purity of breed, size, and general excellence is my motto. One hundred awards with one hundred and five exhibits at 7 shows in 1899. A choice selection of young boars and sows of all ages for sale; also boars fit for service, and pregnant sows. Fifty breeding sows, of which 25 (twenty-five) are imported; also three imported stock boars bred by such noted breeders as Sanders Spencer and Philo L. Mills. Am also using two Canadian-bred stock boars, first prize at Toronto in 1898-99. Express charges prepaid. All stock carefully shipped and guaranteed as described. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont.

D. C. FLATT, MILLGROVE, ONT.

It will only take two minutes to read our SPECIAL OFFER for February and March Orders.



On any and all orders we receive from Breeders and Farmers during February and March we will allow 5 per cent. discount from our regular price, or in place thereof, pay the freight to your nearest railroad station. We will also accept bankable notes to run 2, 4, 6 or 8 months, in payment for Cookers, but we will not allow any discount or pay the freight on any time sales. We guarantee our Cooker to cook more feed and heat more water in less time and with less fuel and attention than any cooker made.

Take advantage of our Improved Reliable Food Cooker, special offer and get the Tank Heater and Steam Generator, one of the greatest feed savers, labor savers and money makers the feeder can possibly have. Cooks a barrel of ground feed in 30 minutes; 25 bushels of ground corn in 2 hours; heats a barrel of water hot enough to scald hogs in 20 minutes; will heat water in tanks 100 feet from Cooker. Used and recommended by feeders throughout the United States and Canada. Highest awards at Omaha Exposition in 1898, and at Toronto, Canada, and at Dallas, Texas, in 1899, and at State Fairs everywhere. Sold on a positive guarantee. Your money back if it does not come up to the contract. Send for 1900 Century Catalogue and introduction price. The Ripley Company proved its claims to superiority by taking first premiums at the Chicago, St. Louis, and Cedar Rapids Poultry Shows in Jan., 1900. It has no flues to rust out or leak. No scorched feed if you use it. The best machine of any kind proves the cheapest in the end. om

RIPLEY HARDWARE CO., BOX 100, GRAFTON, ILL.

Large English Berkshires.

HERD headed by two imported first-prize boars. Young boars and sows from imp. prizewinning sires and dams. Write for prices. **H. BENNETT & SON, St. Williams, Ont.**

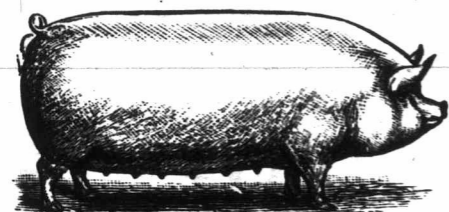
Yorkshire Boars

WEIGHING 200 LBS. AT \$10.00. We have a few of these 200-pound boars which we are offering for \$10 each. Also brood sows and younger stock. A choice A. J. C. Jersey cow, due to calve in April, for \$50. **W. R. BOWMAN, MT. FOREST.**

Yorkshires, Berkshires, and Shorthorns.

Yorkshire boars fit for service. Sows ready to breed, and sows safe in pig, of bacon type. Berkshire boars fit for service. Sows safe in pig, sows ready to breed—large, lengthy, smooth type. 1 bull calf, 9 months; 1 heifer calf, 10 months. Write for prices. **JAS. A. RUSSELL, Precious Corners, Ont.**

We lead, others follow.



Oak Lodge Yorkshires have a special type of their own, and are acknowledged to be the highest class of bacon hogs. Grand sweepstakes over all other breeds on foot and for dressed carcasses at Provincial Winter Show. Won all herd prizes offered at the largest Canadian exhibitions.

Improve the quality of your pigs by securing some of Oak Lodge blood. Quality! quality! our motto. All stock fully guaranteed. om

Brethour & Saunders, Burford, Ont., Can.

WOODSTOCK

Yorkshires, Berkshires, Shorthorns 40 head of improved White Yorkshires. Boars and sows from

2 mos. to 9 mos. Sows in pig to imported boar. 20 head of choice Berkshires, same age. Six Shorthorn bulls from good milking strains. Address: om **H. J. DAVIS, BOX 290, WOODSTOCK, ONT.**

OXFORD HERD OF POLAND-CHINAS

The home of the winners. Having again won the sweepstakes at Toronto, London, Ottawa, and Provincial Fat Stock Show, we are offering again young boars and sows of superior quality; bred along the same lines as our winners. **W. & H. JONES, OXFORD CO., MT. ELGIN, ONT.**

BORNHOLM HERD IMP. CHESTER WHITES.

Stock for sale at all times, all ages. Nothing but first-class stock shipped. Inspection invited. Correspondence answered. om **Daniel DeCoursey, Bornholm P. O., Ont.**

Tamworth boar, 12 mos. old, winner of 1st prize at Toronto, under 6 mos., last fall. Price, \$35.

Tamworth boar, 6 mos. old, same breed as above, weighing 200 lbs. Price, \$15. 15 young Tamworth boars and sows, nearly 4 mos. old. Each, \$11. We are now prepared to book orders for young Tamworth spring pigs, from Toronto prizewinning stock. All stock registered. om **COLWILL BROS., Newcastle, Ont.**

E. D. GEORGE, PUTNAM, ONT., Importer and Breeder of Ohio Improved Chester White Swine.

The largest and oldest established registered herd in Canada. I make this breed a speciality, and furnish a good pig at a fair price. Write for prices. om

Spring Brook Herd of Tamworths.

Five choice boars, six months old. Sired by Imp. Whitacre Crystal, Royal winner, and by British King (imp.), first prize at Toronto, 1899. Also sows, same age and breeding. A few sows to farrow. Barred Box settings at \$1.00. Orders booked. om **C. HALLMAN, New Dundee, Waterloo Co., Ont.**

One hundred Tamworth and Improved Chester White Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a speciality. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices. om **H. GEORGE & SONS, Crampton P. O., Ont.**

TAMWORTHS

Descended from prize-winning sows, tracing through the most noted imported sires, and from equally well-bred boars. Young things a speciality. **WM. R. McDONALD, "Pine Lane Farm," RIDGETOWN, ONT.**

Chatham HERD OF Tamworths

1 two-year-old boar, and some splendid pigs 3 months old, by Whiteacre Lad (imp.), and by the old show boar, Sambo; also some good pigs, fit to wean. These are extra choice ones. For full particulars write: om **J. H. SIMONTON, Box 304, CHATHAM, ONT.**

Tamworth Boars and Sows.

Descended from the noted strains of (Imp.) Nimrod, Oak Hill Hugo, Countess, and Whiteacre Prince; all ages. Also Berkshires, Baron Lee 4th strain, 6 weeks old. Satisfaction guaranteed. om **D. J. GIBSON, Bowmanville, Ont.**

THIS IS A CEMENT SILO BUILT ON

THE FARM OF

John Louve, Harpley, Ont.

It is hexagonal—that is, 6 corners—and is 10 feet across each way, inside measurement, and is 30 feet high



READ WHAT MR. JOHN LOUVE SAYS ABOUT THOROLD CEMENT:

GRANDREID, ONT., Nov. 14, 1899.

ESTATE OF JOHN BATTLE, THOROLD, ONT.: DEAR SIR,—I have this summer built a silo 30 feet high by 10 feet across inside—six corners. It was built under the instructions of A. E. Hodgert, your travelling agent and instructor, who understands his business thoroughly. I have filled it with corn, and it is a grand success so far as I can see yet. I also built a large arch root-cellar in the approach to the barn. It was built by your A. E. Hodgert. The arch is 12 x 30 feet. The wall is 12 inches at the side by 14 inches at the top. The root-house and silo are getting as hard as stone, and I would advise those who intend building either one to build them of cement. My silo is here for inspection, and also arch root-house. **JOHN LOUVE, Harpley.**

Estate of John Battle, Thorold, Ontario.

Queenston Cement

FOR WALLS AND FLOORS.



WRITE us before designing and laying out farm buildings. State number and kind of stock to be kept, and give size of stables. We will send sketch of basement floor, showing how to use to advantage the room at your disposal. Our system of ventilation is being adopted by the leading stockmen. Fully covered by Letters Patent, but to our patrons we make no charge.

Isaac Usher & Son, QUEENSTON, ONT.

NOTICES.

Farm Seeds.—Of the many follies to which men are addicted, there are few greater than that of buying cheap seeds for the sake of economy. The fact is, seeds that are good enough to produce maximum clean crops cannot be produced at a low price. Cheap seeds, according to the customary usage of that term, are in most cases expensive to the buyer, as it is the crop return that settles the value of the seed planted. Nor is it enough to obtain plump, clean seed, but it is also important to plant the varieties that give maximum returns in quantity and quality of crop. This is especially true in roots and vegetables, and in no other crop more pronounced than in sugar beets, in the varieties of which there is such a vast difference in feeding quality and ease of harvesting. Look up Steel, Briggs Seed Company's advertisement in this issue and send to their offices in Toronto for their 1900-112-page illustrated catalogue.

Prairie State Incubators.—The Prairie State Incubator Company's Works, at Homer City, Pa., are very busy at present, indicating an unprecedented activity in chicken-breeding and chicken-raising. Their sales of machines in November and December were 3,126, in January 2,227, and it was expected February sales would reach 3,000 incubators. Among the sales is a consignment of 55 machines to H. S. Karsendick, New Orleans, who already has one of the best poultry farms in the world. The 55 new incubators will add to the big flock 16,000 chickens every third week during the hatching season. In Georgia, State Senator White and G. M. Clark & Co., at Kensington, have each bought ten large-capacity machines. Readers interested should write the Prairie State Incubator Co., Homer City, Pa., for their 128-page catalogue, containing 50 colored plates, many photo-engravings and a full description of new appliances.

London
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W. H. & Co.
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Market Gardeners

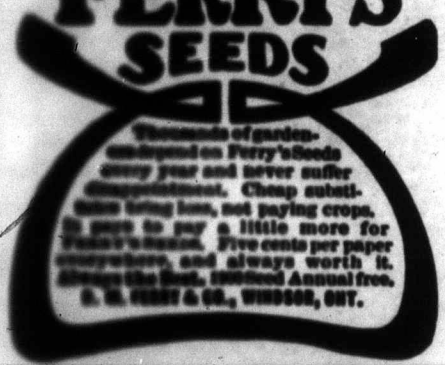
make money by getting their produce into market early. This is best accomplished by taking advantage of the stimulating effect of

Nitrate of Soda.

It forces the most rapid growth and imparts quality, crispness, tenderness, etc. All about it in our free book, "Food for Plants." Ask for a copy. Address, **John A. Myers, 12-R John St., New York.** Nitrate for sale by fertilizer dealers everywhere.

Write at once for List of Dealers.

FERRY'S SEEDS



Thousands of gardeners depend on Ferry's Seeds every year and never suffer disappointment. Cheap substitutes bring loss, not paying crops. It pays to pay a little more for Ferry's Seeds. Five cents per paper everywhere, and always worth it. Always the best. **1894 Annual Free.** S. W. FERRY & CO., WINDSOR, ONT.

RELIABLE SEEDS

For FARM and GARDEN.

The stock includes all that is best in Garden and Field Roots, Flower Seeds and Flowering Plants, Grasses, Clovers, and Seed Grain.

Illustrated Catalogues mailed free on application.

WILLIAM EWING & CO.,
SEED MERCHANTS,
142 McGill St., MONTREAL.
ESTABLISHED 1866.

GEORGE KEITH

for sure-growing

SEEDS

Finest Quality. Send for Catalogue.

124 KING STREET E., TORONTO.

BARRED PLYMOUTH ROCKS.

Big silver egg and gold medal winners at the "National" Poultry Show, 1900. More prizes than any other variety at Toronto, London and Ottawa Fairs, 1900. Blood will tell.

EGGS \$2.50 and \$3.00 per 15.
\$2.50 and \$3.00 per 30.

ASKIN POULTRY YARDS, London.
GEO. W. MILLER, PROP.

CRAMP STRAIN S. C. WHITE LEGHORNS.

The greatest egg producers. Eggs from a fine pen, hatched by a first-class cockerel mated with prize quality of S. C. White Leghorns.

W. C. CAMPBELL, Queenston, Ontario.

SNELGROVE POULTRY YARD.

Specialty exclusively. "Eggs for Hatching" from "Game Business Hens." Better than ever, having added \$5 worth of new blood to my flock of Game Hens. Eggs \$1 per setting; 3 settings, \$2.

W. J. CAMPBELL, Snelgrove P. O., Ont.

FOR SALE.

A fine choice birds, including Golden and Silver Wyandottes, Barred and White Rocks, Bronze and White Game, and White Leghorns. All bred from imported stock. Also have some 2-year-old peafowl.

J. H. CAMPBELL, Park Farm, Oshawa, Ont.

BARRED PLYMOUTH ROCKS

Open house well-bred and vigorous matings, \$2 per setting. Five choice cockerels, \$1.00 each. Also Turkeys of both sexes.

L. S. W. MAIN, ELORA, ONT.

Spicedale Poultry Yards. Eggs for hatching.

Under this name, Barred Plymouth Rocks, White Plymouth Rocks, and White Wyandottes. Choice exhibition stock \$1.00 per setting. Some excellent male birds to sell. -O. A. HILL, Wyoming, Ont.

3 Rouen Ducks, \$3.00.

Buff and Barred Rock and Buff Leghorn eggs, \$1.00 per 15. Robt. Steven, Petrolia, Ont.

"Canada's Greatest Seed House"

(1 lb.) **STEELE BRIGGS' ROYAL GIANT SUGAR BEET**



GROWS HEAVY CROPS. EASILY HARVESTED

LARGE CLEAN ROOTS. HIGHEST FEEDING QUALITIES.

SUPPLIED IN SEALED PACKAGES ONLY

The **Steele Briggs SEED CO. LIMITED** TORONTO, ONT.

A NEW **Sugar Beet** FOR STOCK FEEDING

Unlike any other variety. Grows three-fourths its length out of ground. Roots large, clean, of a beautiful rose color, flesh white, firm and of finest feeding quality.

Easily Harvested
EVERY GROWER SHOULD TRY IT.

What an English expert says of this new "Royal Giant" Sugar Beet:

"I should like to express my highest opinion of the special strain of Sugar Beet you showed me at your trial grounds. I have never seen anything so uniformly good before, size, form and weight are perfect, and there is absolutely no waste. For dairy farmers in a country like yours it must be simply invaluable."

Supplied in sealed packages as represented in accompanying cut (printed in colors).
Price (post-paid), 50c. per lb.

STEELE, BRIGGS' "Danish Sugar Beet"

A leading and favorite sort, supplied in sealed packages only.
Price (post-paid), 50c. per lb.

ASK YOUR DEALER FOR THEM.

REMEMBER.—If you cannot obtain Steele, Briggs' Famous Seeds from your Resident Merchant, send your orders direct.

EXAMINE CAREFULLY PAGES 92 TO 101 OF CATALOGUE, MAILED FREE.

THE STEELE, BRIGGS SEED CO., Limited, TORONTO, ONT.

THE NEW BOOK: **"SUCCESSFUL FARMING"**

THE MOST PRACTICAL AND COMPLETE WORK OF THE KIND EVER PUBLISHED.

BY **WM. RENNIE, SR.,** LATE OF THE ONTARIO AGRICULTURAL COLLEGE.

300 PAGES. PROFUSELY ILLUSTRATED. PRICE, \$1.50, POSTPAID.

Never before has such an enormous demand been created for a book upon "Farming for Profit." This is perhaps the first book of the kind ever written by a man while actually engaged in the work which has been such a continued success—hence the advice is practical and doubly valuable. The book is written in a plain, practical and easy-to-be-understood manner, and with up-to-date ideas in everything pertaining to successful farming. Farmers cannot afford to be without it.

The Latest Methods of Profitable Farming. How to Renew Worn-out Land. How to Clean the Land of Weeds. Advantages of Shallow Cultivation. What to Sow, and How to Sow It. Feeding for Profit. What to Feed, and How to Feed, etc., etc.

ADDRESS ALL ORDERS: **WM. RENNIE, Toronto.**

Bronze, White Holland TURKEYS. and Narragansett
Also Pekin ducks and Collie pups.
ANDREW ELLIOT, POND MILLS, ONT.

EGGS. It pays to get the best. We have them in L. and D. Brahmas, B. and W. Rocks, W. Wyandottes, Black Minorcas, and Indian Game, at \$1.25 per setting.
o **JACOB B. SNIDER, German Mills.**

EGGS From Plymouth Rocks, Wyandottes, Leghorns, Brahmas, Cochins, Langshans, B. Minorcas, Spanish, S. Dorkings, Houdans, B. R. Pile and Indian Game, Hamburgs, Red Caps, Bantams, Pekin, Rouen, Aylesbury ducks, at \$1 per 13.
R. J. & A. Laurie, Wolverton, Ont. o

EGGS, EGGS Mammoth Bronze Turkeys, Barred and White P. Rocks. Have also for sale young Chester White Swine.
W. E. Wright, Glanworth, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.
W. F. Bowen, Neponset, Ill., sold a carload of grade Shorthorn cattle at Chicago last week, weighing 1,400 lbs. each, at \$5.95 per 100 lbs. Mr. Bowen says he bought no fancy feeds, and feels sure that good breeding is more than half of it.

Col. William S. King, of Minneapolis, died at his home in that city last month. His name is familiar to many of the older breeders of Shorthorn cattle as one who played an important part back in the seventies as a breeder and a successful exhibitor of Shorthorns in the leading shows in the Western States.

The rules relating to the clipping of sheep competing for prizes at the Paris Exhibition require that the sheep, except in the case of Merinos, must be clipped bare within 15 days of the exhibition, with the exception of a tuft of wool to be left full length behind the left shoulder.

R. & S. Nicholson, Sylvan, Ont., have purchased, to head their herd of Shorthorns, the imported Clipper bull, Chief of Stars (7215), imported in 1899 by Arthur Johnston, Green-the FARMER'S ADVOCATE.

The executive committee of the American Shropshire Association, Richard Gibson, Dr. G. Howard Davidson and Mortimer Levering,

met in Chicago recently, and voted to appropriate \$800 to be offered in special prizes for Shropshires at the International Live Stock Show to be held in Chicago, Dec. 1st to 8th.

The big "Dobie steer" has been shipped from Texas to the Universal Exhibition to be held at Paris, France, this year. He is 9 years old, has horns that measure 9 feet 7 inches from tip to tip, and weighs between 1,600 and 1,700 lbs. He was bought in a bunch on the Mexican border in 1894.

In this issue, Mr. J. A. James, Nilestown, Ont., offers an exceptional bargain in calves from his excellent herd of 30 registered Ayrshire cows. Mr. James has a cheese and butter factory on his farm, where the milk from his herd is made up, so that unless a cow does really good work at the pail she cannot live in Mr. James' herd. The calves offered are all sired by Norman McLeod—1594—from imported parentage in the herd of W. W. Ballantyne, Stratford, Ont. Mr. James has recently made a valuable addition to his herd, in three fine cows and a yearling bull, from Caldwell Bros.' Briery Banks herd. The bull is Briery Banks Osborne, a grandson of the world-famous Nelly Osborne. We might also add that the price of calves mentioned in the advertisement includes the cost of registration, which Mr. James attends to himself.

No crop can grow without Potash. Every blade of Grass, every grain of Corn, all Fruits and Vegetables must have it. If enough is supplied you can count on a full crop—if too little, the growth will be "scrubby."



Send for our books telling all about composition of fertilizers best adapted for all crops. They cost you nothing.

GERMAN KALI WORKS, 93 Nassau St., New York.

BARRED PLYMOUTH ROCKS. WE have for sale good breeding cockerels with straight narrow barring and good even color. Also a few Pekin ducks. H. GEE & SONS, Fisherville, Ont.

Mammoth Bronze Turkeys S. G. Dorkings, B. F. Rocks, S. C. Br. Lephorns, Black Minorcas. Over 100 grand young birds from winning strains. Pairs and trios mated not akin. T. & H. SHORE, WHITE OAK, ONT.

310 First Premiums Awarded to the **PRAIRIE STATE INCUBATOR**. Guaranteed to operate in any climate. Send for catalogue. PRAIRIE STATE INCUBATOR CO. Home City, Pa.

DES MOINES INCUBATOR CO
The BEST and the CHEAPEST.

95 Per Cent. Hatches are often reported by those who use these incubators. One reason for this record is absolute uniformity of temperature in egg chamber; correct instructions for operating; has fireproof lamp. A great mistake it would be to purchase an Incubator or Brooder without first getting a copy of our 148-page catalogue. Send 3 cents for illustrated catalogue of Incubator, Brooder, Poultry and Poultry Supplies. "THE POULTRYER'S GUIDE" (new edition) 15 cents by mail.

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373 St. Paul St., MONTREAL.
Sole Agent for the Dominion.

Built for Business! That's the idea. There's nothing fancy; nothing foolish about them; just straight, practical, lasting, honest goods. The

CYPHERS INCUBATORS are positively warranted to last TEN YEARS, without repairs, and are guaranteed to **OUT-HATCH**, during three trials, any other make of incubator on the market—bar none. **THIS, OR YOUR MONEY BACK.** Used exclusively at Experimental Farms, Guelph and Ottawa; also six American Experimental Stations. Daniels, the universal provider in the Poultry Supply business, has the sole agency for the Cyphers Incubators and Brooders for Canada. Our list of Poultry Supplies are too numerous to mention here, but just drop us a line and state what you require. We handle nothing but the best. Satisfaction every time, or money refunded. Mention **ADVOCATE**. C. J. Daniels, 231 River St., Toronto, Ont.

CHAMPION EVAPORATOR For MAPLE SYRUP and SUGAR. Has a corrugated pan over firebox, doubling boiling capacity and saving fuel; small interchangeable syrup pans (connected by siphons), easily handled for cleansing and storing, and a perfect automatic regulator, which secures rapid and shallow evaporation, and produces the best quality of syrup. The Champion is a perfect evaporator for SORGHUM, CIDER AND FRUIT JELLIES. Catalogue Free. **THE G. H. GRIMM MFG. CO.,** 84 WELLINGTON ST., MONTREAL.

NOTICES.

Champion Machines.—We are in receipt of an illustrated catalogue of the Warden, Bushnell & Glessner Company, Chicago, Ill., manufacturers of Champion binders, mowers and reapers. The catalogue gives many illustrations of the various parts of their machines, showing their construction and points where strength is added to the machines and lightness of draft unaltered. This firm are to introduce their machines into Manitoba and the Northwest Territories this year, and will be pleased, no doubt, to furnish one of their catalogues to anyone sending their address to their Winnipeg agents, Messrs. Johnson & Stewart.

Parasitic Sheep Dip and Animal Wash, manufactured by the Pickhardt-Renfrew Co., Stouffville, Ont., is a non-poisonous insecticide that does effective work in improving the skins and coats of animals treated by it. It is a great healer of wounds and a sure cure for scab if properly applied, besides being a most effective louse and tick destroyer. Among the very favorable testimonials for the dip received by the company are those of Messrs. Jas. L. Davidson, Balsam; G. A. Brodie, Bethesda; P. G. Baiton, V. S., Stouffville; and Robt. Miller, Stouffville, Ont.

Central Business College, Stratford.—In conversation with Mr. W. J. Elliott, Principal of the Central Business College, at Stratford, a short time ago, we were informed that the institution was enjoying its full share of patronage. The daily attendance exceeds two hundred pupils from all parts of the Province, as well as many and some of the more distant of the United States. The superior facilities provided for instruction, in their large staff of expert teachers, their commodious and centrally-located College, and the close touch in which the College keeps with the commercial world, which at times asks for more teachers than the institution can supply, are all attractive features. Mr. Elliott informed the writer that young men had from time to time been placed upon the teaching staff of Commercial Colleges at different points in the United States, from the Atlantic to the Pacific, as well as in Canada, and that in one week in February one young man received a call from the Metropolitan College at Ottawa, and one at Bridgton, N. Y., positions which they accepted at remunerative salaries. Young men contemplating a business training will do well to look into the working of the institution. Their new circular is a work of art and contains many excellent samples of penmanship done at the institution.

A Prosperous Concern.—During a recent visit to Bradford, a member of the FARMER'S ADVOCATE staff visited the Gould, Shapley & Muir Works, and reports having found their business in keeping with the activity of the times. Although a large portion of their output consists of their improved windmills, yet much attention is given to the manufacture of pumps, grinders, fanning mills, water tanks and watering basins for stock. The firm informed us that since roller bearings have given such entire satisfaction in their windmills they have gone extensively into the manufacture of roller bearings for factory and foundry equipment, which, by their use, less friction and consequently increases the power; also adds to the steadiness and running qualities of machinery so equipped. Another very important feature taken up by the firm since their removal to their new quarters is their galvanizing plant, which has sufficient capacity to treat a whole section of a large windmill at one operation. Their entire piping and connections being thus treated renders them impervious to the alkaline action of hard water so frequently met in many sections. The firm are making a neat and handy inside stock water basin in two sizes (single and double). This they also treat in the galvanizing bath, which insures protection from rust, a feature which will be readily appreciated by practical stock owners. The firm also manufacture all sorts of modern beekeeper's supplies.

BOOKS ON AGRICULTURE. Mr. C. A. Zavitz, Experimentalist of the O. A. C., writes as follows: "A valuable bulletin has recently been prepared by Prof. J. B. Reynolds, of the Ontario Agricultural College, and has been published by the Department of Agriculture, Toronto, giving a list of books suitable for farmers, stockmen, dairymen, and fruit-growers. The books are mentioned, and are divided under the following groups: 1. Soil and Crop; 2. Live Stock; 3. General Agriculture; 4. Dairying; 5. Poultry; 6. Fruit, Flowers, and Vegetables; and 7. Plants and Animal Life. None of these books therein enumerated treat of the production of farm crops from a practical standpoint, and I therefore wish to draw the attention of our farmers to three books which deal more especially with this important phase of agriculture:

SOILS AND CROPS.—Morrow & Hunt; 303 pages. \$1. (Howard & Wilson Publishing Co., Chicago, U. S. A.) This book was published in 1895, and gives special attention to the cultivation of wheat, oats, barley, rye, corn, grasses, clover, potatoes, and root crops. **FORAGE CROPS.**—Thomas Shaw; 281 pages. \$1. (Orange Judd Co., New York, U. S. A.) This book was published about January 1st, 1900, and deals with the growing of corn, sorghum, clover, rape, millet, root crops, and the common cereals. The growing of the various farm crops is dealt with in a practical manner, and the book will undoubtedly be appreciated by the farmers of Ontario and of the Northern States. **SUCCESSFUL FARMING.**—Wm. Rennie, Sr.; 350 pages. \$1.50.

This is also a new book which is just appearing. Besides giving information on the cultivation of the soil, etc., it also deals with the seeding, cutting and curing of hay; the sowing and harvesting of cereal root crops; sowing, harvesting and storing of clover; the mixing of seed in meadows, pastures, and lawns, etc. A few books dealing with the production of farm crops from a practical standpoint have been published until recently, the three volumes herein mentioned, which are of so recent a date, will undoubtedly be much appreciated by farmers generally. [EDITORIAL NOTE.—Any of these volumes may be ordered direct or through the FARMER'S ADVOCATE.]

The White Man's Burden Killer
—the perfect fence for all purposes—made of LARGE Spring Steel Wires with the heaviest galvanizing. Cannot be broken by animals, or by expansion and contraction. Built right by the makers, if it is put up right by the user it lasts a lifetime—
American Field and Hog Fencing
Sold by our agents in your city. If no agent, write to us and we will solve your fencing burdens.
American Steel and Wire Co.,
CHICAGO, NEW YORK, SAN FRANCISCO.

Crown Peas for Seed.—A limited quantity. Also 14 different varieties of potatoes. At reasonable prices. John A. Murray, Box 93, Scarborough, Ont.

SEED PEAS FOR SALE. "Golden Vine." Straw a bright golden color; heavy yielders. Also Newmarket oats. All pure, clean seed. Peas, 75 cents; oats, 50 cents per bush. Eggs extra. JOHN MILLIKEN, Middlesex Co., Ont. Springbank.

The Earliest Oats DAUBENEY OATS—This variety is the earliest of about one hundred varieties tested at the Ontario Experimental Farm, Guelph. They stand up well on rich soil, are white, thin hulled, and the grain weighs well. Price, per bushel, 60c. F. O. B. Reduction to parties ordering large quantities. Cotton bags, 15c. each. We also have Mandeschur barley at 50c. per bushel. JAMES BOWMAN, Elm Park, Guelph, Ont.

TREE for orchard, lawn or garden. Vines, shrubs, plants, roses. True. Send for catalogue (10c.) for prices. Earliest seed potatoes. Best eggs for hatching. A. G. Hull & Son, CENTRAL NURSERY, St. Catharines, Ont.

WINONA NURSERY CO.
Offers for Spring of 1900
A full line of stock, both fruit and ornamental, at very moderate prices. No agents' commission to pay. Send for price list and catalogue. Dealers will find it to their interest to correspond at once with
J. W. SMITH, Manager, Ontario, Winona.

AGENTS WANTED EVERYWHERE
THE GEM Sickle Grinder
sharpens any mowing machine knife made—and does it right. Yes, you can grind a knife on a grindstone—after a fashion. The up-to-date farmer is not satisfied with tools that wear—after a fashion. The right thing is what he wants. The Gem is right. We haven't room here to tell how and why. Catalog free—it tells the rest. CHICAGO WHEEL & MFG. CO., London, Ont.

THE GLOBE FURNITURE COMPANY
WALKERVILLE, ONTARIO
CHURCH SEWS, SCHOOL DESKS, etc.
WRITE FOR PRICES

WIRE MESH MACHINE
to weave fence of twisted hard steel spring wire at half price of factory price. 200 boys wire for 100 Mesh Fence. Catalogue Free. Address: Garden Wire Fence Mach. Co. Box 12, Ridgeway, Ont.

FREE! Best Fence Machine Made. To first purchaser in each neighborhood of not less than 1,000 lbs. Coiled Spring wire at market price. Offer open for 30 days to introduce our goods. McGregor, Banwell & Co. WINDSOR, ONT.

"SAFE LOCK" METAL SHINGLES
THE KIND THAT ARE WEATHERPROOF COST LITTLE MORE THAN WOOD SHINGLES AND ARE LIGHTNING AND FIRE PROOF
ASK FOR FREE SAMPLES
METAL SHINGLES & SIGNS CO.

FREEMAN'S Three-Ply Ready Roofing
EASILY APPLIED
Great Reduction in Prices. Send for Price List, etc. Parliament Buildings, Toronto, October 20th, 1898.
The W. A. FREEMAN Co., 57 Ferguson Ave., South, Hamilton, Ontario:
Gentlemen,—Nine years ago I purchased from you a large quantity of material known as Freeman's Ready Roofing, with which I roofed the north half of my barn and two sheds, 65x20 each. This year we re-painted this roof and found it in excellent condition. A shingle roof put on part of the barn two years before was badly in need of repair. I shall hereafter use your ready roofing on all my out-buildings. Yours truly, (Signed) F. W. HOSKIN.

METAL EAR LABELS
Used by all Live Stock Record Associations.
Sheep size, per 100..... \$1.50
Hog size, per 100..... 1.50
Cattle size, per 100..... 2.00
Punch and Files for attaching labels to ear, each \$1.00.
Name on one side and any numbers wanted on reverse side. P. S. BURCH & CO., 178 Michigan St., Chicago, Ill.

LIVE STOCK AUCTIONEER.
The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References: John I. Hobson and Alfred Stone, Guelph; Jas. Hunter, Alma, and Mowson Boyd, Boboygon. Telegram. Care Mercury Office, Guelph, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

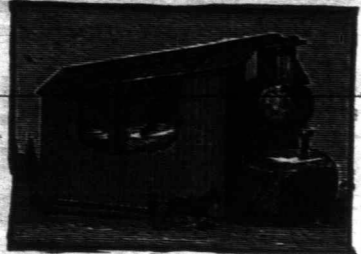
CANCER
 GUARD YOUR SHEEP FROM
 PLASTER. FULL PARTICULARS
 FREE. F. STOTT & JURY, Bowmanville, Ont.

EPPS'S COCOA
 GRATEFUL COMFORTING
 Distinguished everywhere for
 Delicacy of Flavour Superior
 Quality, and Highly Nutritive
 Properties. Specially grate-
 ful and comforting to the
 nervous and dyspeptic. Sold
 only in 1-lb. tins, labelled
JAMES EPPS & CO., Ltd.
 Homoeopathic Chemists,
 London, England.

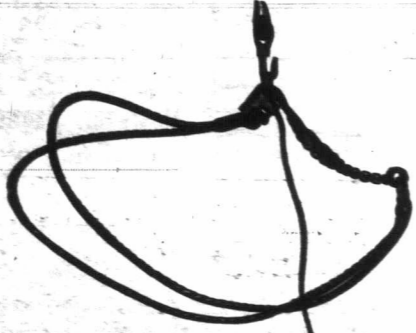
BREAKFAST SUPPER
EPPS'S COCOA

BUCHANAN'S
 (Malleable Improved)
PITCHING MACHINE

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without
 changing car. No climbing necessary. Malleable
 iron cars. Steel Forks. Knot Passing Pulleys.
 Will work on stacks as well as in barns. Satis-
 faction guaranteed.



The Common-Sense Sheaf-Lifter
 Works in connection with Pitching Machine, and
 is the most complete apparatus ever offered to
 the public for pitching sheaves. Sheaves left in
 the mow just as they come from the load.

RESPONSIBLE AGENTS WANTED

Circulars, Prices and Terms on application to
M. T. BUCHANAN & CO., Ingersoll, Can.

THE "ROB ROY" MINES.

OUR SUPT. WIRE IS TO-DAY:
**CONTRACT DONE. SEND
 \$1257.00. MY REPORT ON
 WAY, ORE HAS IMPROVED.**

The Ferguson (B. C.) Eagle of Feb. 21
 says: "The ore is improving with every
 blast, and this property will be another Lar-
 deau shipper this season."

Some stock is yet available for subscrip-
 tion. If interested, send for reports and
 booklets.

THE SCOTTISH-CANADIAN MINING & DEV. CO.
 of B. C., Limited. (Non-assessable.)
 Phone 1050. 207 Dundas Street, London.
 A. E. WELCH, Managing Director.

**Farmers' Live Stock
 Ear Labels \$1.50 per 100**
 and up, according to the
 amount of matter wanted on
 them. Also Punches to suit
 them. Many send for price
 list, and order; some send for
 price list, and do not order.
 Tell us why? Please write for
 circular and price list. R. W.
**James, Farm Implement
 Agency, Bowmanville, Ont.**



GOSSIP.

R. J. & A. Laurie, Wolverton, Ont., write:
 "In sending a change of advertisement, would
 say that our stock is coming through the winter
 fine. We have on hand boars and sows of
 Sept. and Dec. farrow, sired by Sandy 3rd (S.S.)
 and out of our Briery Banks Hugo and Nimrod
 sows, and are nice lengthy pigs, which we are
 offering very cheap, and expect to have pigs of
 March farrow to dispose of. In poultry we
 are prepared to furnish eggs from grandly
 mated pens and containing our prize winners
 at the leading county and township fairs. We
 can also supply eggs for incubator purposes
 from Barred and White Rocks, Silver and
 White Wyandottes, Brown and White and
 Black Leghorns, and Red Caps."

John Jackson & Sons, Abingdon, write us:
 "Kindly allow me to correct some misstate-
 ments that appear in the stock notes contrib-
 uted by W. & G. Telfer, Paris, published on
 page 29, January 10th issue of the ADVOCATE.
 Referring to the shearing prizes in the illustra-
 tion, it states "also first at the Royal Coun-
 ties Agricultural Society, England." Now, the
 fact is, our ewes were not only first at the
 Royal Counties Show, but were also champion
 pen at the same show, and one of these ewes
 won the sweepstake prize over both the Telfer
 ewes at London. Again, referring to the shear-
 ing ram—"has won four out of a possible six
 firsts"—we showed against this ram three times
 (only) and were placed first over him each time.

The prize list for the great International
 Live Stock Exposition in Chicago next Decem-
 ber is being arranged on an exceedingly liberal
 scale. Over \$30,000 will be offered in prizes by
 the various stock-breeders' associations, in
 addition to the regular list, which, it may be
 presumed, will be on broad lines. The classifica-
 tion in cattle has no section for 3-year
 cow or bull. These will have to show with
 aged animals. There will be senior and junior
 championship prizes in both the male and
 female divisions. The senior herd prizes are
 graded as to ages, and the herd must consist of
 a bull, 2 years or over; cow, 3 years or over;
 heifer, 2 years and under 3; heifer, 1 year and
 under 2; and heifer under 1 year. Breeders'
 young herd to consist of bull under 2 years; two
 heifers, 1 and under 2 years; and two heifers
 under 1 year. All, except the bull, to be bred by
 the exhibitor. There are prizes for the get of a
 sire, 4 animals, either sex, any age, and for pro-
 duce of a cow, 2 animals, either sex, any age.
 The classification for sheep provides for show-
 ing ewes singly, instead of in pairs, champion-
 ships for ram and for ewe, any age, in each
 breed. The flock prize is for ram, any age;
 ewe, 2 years or over; ewe, 1 and under 2 years,
 and ewe under a year. There are prizes for four
 lambs, either sex, by one sire.

LIVE STOCK SHOW AT PARIS EXPOSITION.

The International Show of cattle, sheep and
 swine in connection with the Paris Exhibition
 was to have been held, according to dates fixed
 some time ago, on June 21st to July 2nd, but
 owing to these dates clashing with the English
 Royal, to be held at York, June 18th to 22nd,
 the Paris authorities have seen fit to fix their
 dates for showing from June 7th to 21st.
 The judging will commence on June 9th
 and close with auction sales on June 18th,
 the days before and after the dates named being
 for the reception and removal of the animals.

ROBERT TUFTS & SON'S JERSEY CATTLE AND YORKSHIRE SWINE.

At Messrs. Robert Tufts & Son's stock farm,
 near Tweed, Ont., a representative of the
 FARMER'S ADVOCATE took a look over the herd
 of Jersey cattle and Yorkshire swine, and
 found that firm very enthusiastic over pure-
 bred stock. Selections have been drawn from
 various of the large herds, and contain some
 of the choicest of breeding. This fact, aided
 by new and modern facilities and personal
 attention, has developed some grand animals,
 possessing true dairying characteristics.

The Yorkshires were chiefly selected from the
 noted Oak Lodge herd, and are up-to-date in
 detail. More particulars later.

MR. W. F. TAYLOR'S AYRSHIRES.

While on an eastern trip recently we made
 Mr. W. F. Taylor's comfortable home the ob-
 ject of a visit, and again took a look over the
 fine herd of Ayrshire cattle, and to our en-
 quires we learned that upwards of 20 cows
 will drop calves during the coming spring and
 summer. As has been before stated, Mr.
 Taylor's herd was founded upon Red Rose, a
 cow purchased in Prince Edward Co. on ac-
 count of her excellent dairy qualities, with size
 and constitution, having a splendidly shaped
 udder of great capacity, and furnished with
 large, well-set teats. Red Rose proved herself
 a splendid purchase, for in a few years Mr.
 Taylor had a valuable young herd of Ayrshire
 cows which would be hard to duplicate, and as
 he has been very fortunate in his male selec-
 tions, each generation has been in strict keep-
 ing with the times. Among the younger
 females we noticed particularly some choice
 daughters of Douglas of Loudoun, four of
 which will be in milk during the approaching
 summer, and in them we consider Mr. Taylor
 has a splendid herd of young cows, from which
 we would not be surprised to hear of sensa-
 tional developments. Douglas of Loudoun fell
 into good surroundings upon which to make a
 record, but when we look back and remember
 that he came through Mr. Morton's very best
 families, we would suggest that the herd was
 equally well favored by his presence, for the
 combination worked admirably. A few of the
 younger cows are safely in calf to the services
 of Glencairn of Burnside, and the remainder to
 Dewey 16419, by Dainty Lad of Elmshade, a son
 of the noted Silver King (Imp.), and out of May
 Flower 1693. We were shown a bunch of
 young bulls approaching the serviceable age,
 carrying in their veins not only the choicest
 of breeding, but are full of Ayrshire charac-
 teristics. Also a yearling bull out of White Lily,
 by Earl of Percy, which should attract the
 attention of parties requiring the services of a
 good dairy sire. Mr. Taylor finds a growing
 demand for all the choice young stuff he can
 produce, and frequently finds his supply ex-
 hausted too early in the season. He reports
 having made sales in all parts of the Province,
 as well as into different parts of the United
 States. One of the last sales made was a pair
 of extra choice heifer calves, selected by Mr.
 John Reid, Carsonville, Michigan.



SHEEP SHEARING REVOLUTIONIZED.

Chicago Sheep Shearing Machine

STEWART'S PATENT. PRICE, \$15.00.
 The only Sheep Shearing Machine ever invented.
 The day of the old fashioned hand shears is past. Over
 one million sheep shorn last season with this machine.
 Thousands of testimonials. No sheep owner can afford
 to shear the old way. Saves from one-half to one pound
 wool from each sheep. Pays for itself the first season.
 Be humane and don't butcher your sheep. Requires no
 experience to operate. Send for large illustrated circular.

CHICAGO FLEXIBLE SHAFT CO.,
 158-160 Huron St. CHICAGO, ILL.

Aylmer Sprayer
 Our Offer:



IT is now universally ac-
 knowledged by the
 fruit-growing commu-
 nity that the Aylmer Spray-
 er leads, all others follow.
 During the past two years
 the Aylmer has won first
 place at every contest
 at which it was shown,
 taking the Jubilee Award
 at Toronto Industrial
 Exhibition; also first
 place at St. Petersburg,
 Russia, and at Manchester,
 numerous other exhibitions.
 The General Public not being in a position
 to select the best spraying pump, we make the fol-
 lowing offer: If you are a responsible party, we will
 ship you the Aylmer Sprayer to thoroughly test in
 competition with any other known make, and if the
 Aylmer is not found the most satisfactory, it may be
 returned at our expense, thus giving you the oppor-
 tunity to judge from actual experience which is the
 best sprayer manufactured, no matter what anyone
 tells you. Agents wanted. Mention this paper.
AYLMER IRON WORKS, Aylmer, Ont.

BOYS FOR FARM HELP.

The managers of Dr. Barnardo's Homes will
 be glad to receive applications from farmers or others
 for the boys who are arriving periodically from
 England to be placed in this country. All the young
 immigrants will have passed through a period of
 training in English Homes, and will be carefully
 selected with a view to their moral and physical
 suitability for Canadian life. Full particulars as to
 the terms and conditions upon which the boys are
 placed may be obtained upon application to Mr.
 ALFRED B. OWEN, Agent, Dr. Barnardo's Homes, 214
 Farley Ave., Toronto. 4-y-o.

Low, Wide-Tire Wheels
 FOR WAGONS.

Made to fit your axles.
 Every farmer would have a
 set of these low, wide-tire,
 wrought-iron wheels for
 drawing hay, grain, corn,
 manure, stone, etc. They
 are lighter, stronger, and
 much cheaper than wooden
 wheels. Write for prices.
**Dominion Wrought
 Iron Wheel Co.,**
 on TORONTO.

FAMILY KNITTER!

Will do all knitting required in a
 family, homepun or factory yarn.
**SIMPLEST KNITTER ON THE
 MARKET.**
 We guarantee every machine to
 do good work. Agents wanted.
 Write for particulars.
PRICE, \$8.00.
DUNDAS KNITTING MACHINE CO.,
 on DUNDAS, ONTARIO.

**STAY AT
HOTEL LELAND**

The Leading Hotel of the West.
 ALL MODERN CONVENIENCES. RATES, \$2 TO \$4 PER DAY.
 111 BUS MEXTS ALL TRAINS.
W. D. DOUGLAS, Prop., Winnipeg, Man.

**TORONTO
 ENGRAVING CO.**
92 BAY ST
 CUTS BY ALL PROCESSES
 LIVE STOCK A SPECIALTY.

BINDER TWINE FOR SALE.

SEALED TENDERS, addressed "The Warden of
 the Penitentiary, Kingston, Ontario," and en-
 dorsed "Tender for Twine," will be received until
 the 20th of March next, inclusive, for the twine on
 hand and unsold at that date, together with the out-
 put of the Penitentiary factory between that date
 and the 31st July next.
 The twine will be delivered f. o. b. cars, Kingston,
 in quantities to suit the purchaser. Terms—Cash on
 delivery. Particulars as to quality, grades, etc., may
 be obtained by inspection at the Penitentiary ware-
 house. Each Tender must be accompanied by an
 accepted cheque for \$2,000, which will be returned
 to unsuccessful tenderers.
 Tenders for fifty-ton lots will be received also if
 accompanied by an accepted cheque for \$500, on the
 terms before mentioned.
 Orders from farmers in pursuance of the adver-
 tisement dated January 22nd will be received and
 filled until the 20th of March, instead of the 1st of
 March, as stipulated in the former advertisement.
J. M. PLATT,
 Warden.
 Kingston, 26th February, 1900.

**DON'T IMAGINE THAT
Spraying Apparatus**



are all alike.
 Quite the
 contrary.
 Some never
 work well.
 Some work
 well at first,
 but soon
 give out, be-
 cause not
 honestly
 made. Some
 are gotten
 up to sell.
 The Spramotor
 works well at
 first, and con-
 tinues to work
 well, be-
 cause it is
 honestly
 made.

We guarantee our machines in every detail against
 all defects that may arise, and our guarantee is good.
 We can satisfy you in this point. We would not
 afford to do this unless we did our work well. All we
 ask is that the Spramotor be given reasonable care.
 We will tell you all about these things if you write
 us. A 76-page copyrighted treatise on the diseases
 affecting fruit trees and their remedies, for the asking.
 We pay the postage. Address,
SPRAMOTOR CO.,
 68-70 King St., LONDON, CAN.
 Agents wanted. Mention this paper.

Cheese & Butter

Makers of these articles, in many
 instances, do not pay the necessary
 attention to the quality of the Salt
 they use. Some people think that
 "Salt is Salt," and it does not mat-
 ter where it comes from or who
 makes it. This is a great mistake,
 for it is essential that to produce
 the best Butter or Cheese nothing
 but the purest salt should be used.
 The number of prizes obtained by
 users of Coleman's or Rice's Dairy
 Salt at the various exhibitions is
 conclusive proof that these brands
 of salt stand unrivalled.

FOR PRICES, ETC., ADDRESS
R. & J. RANSFORD
 CLINTON, ONT.
 Established 1868.

Catalogue Printing our Specialty.

Many of the best Catalogues in Canada are
 produced by us. Latest type faces, designs,
 ornaments, and modern machinery.—Best
 in America. Up-to-date covers designed
 by special artists without extra charge.
London Printing & Litho. Company, Ltd.,
 LONDON, ONTARIO.
 PLEASE MENTION FARMER'S ADVOCATE.

Government Analysis.

LABORATORY OF INLAND REVENUE,
OFFICE OF OFFICIAL ANALYST,
Montreal, April 8, 1895.

"I hereby certify that I have drawn, by my own hand, ten samples of the

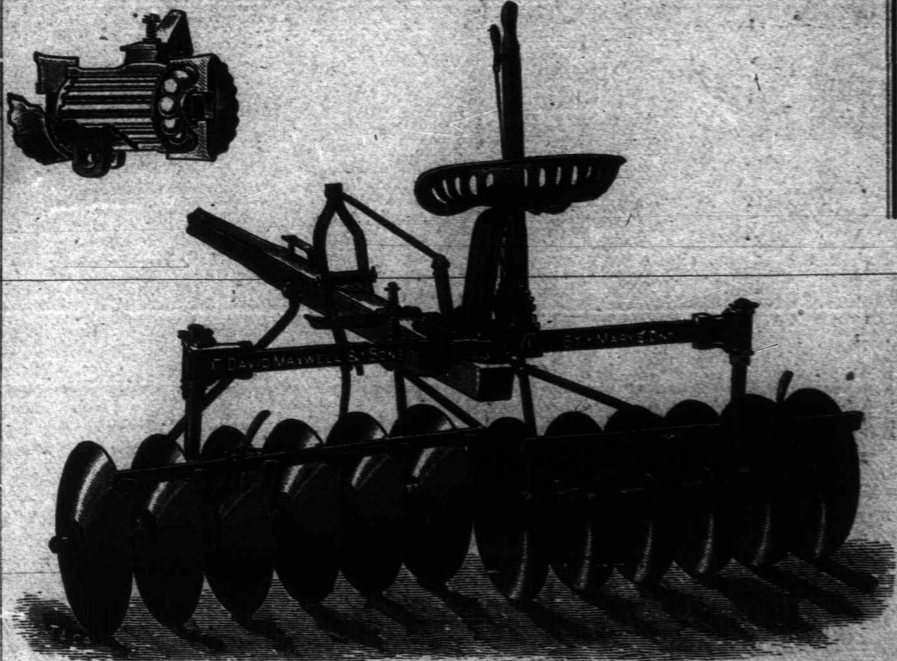
St. Lawrence Sugar Refining Co.'s

EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

99 ⁹⁹/₁₀₀ to 100 per cent. of pure Cane Sugar, with no impurities whatever.

(Signed) JOHN BAKER EDWARDS, Ph. D., D.O.L.,
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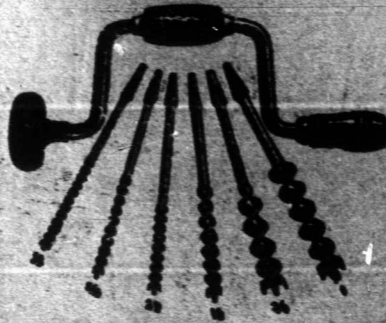


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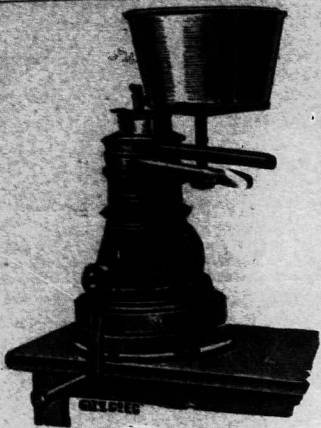
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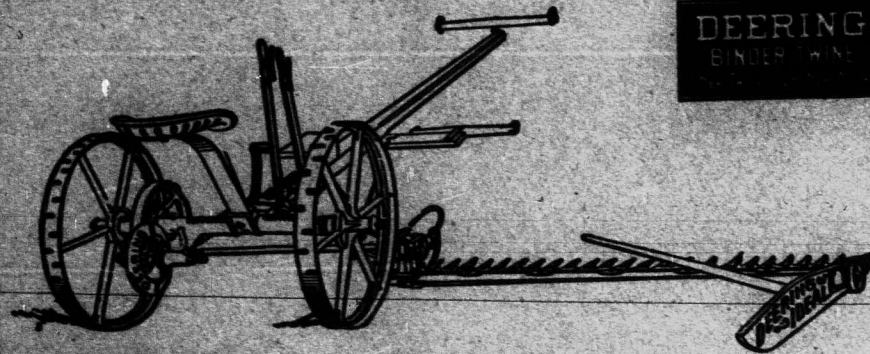
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