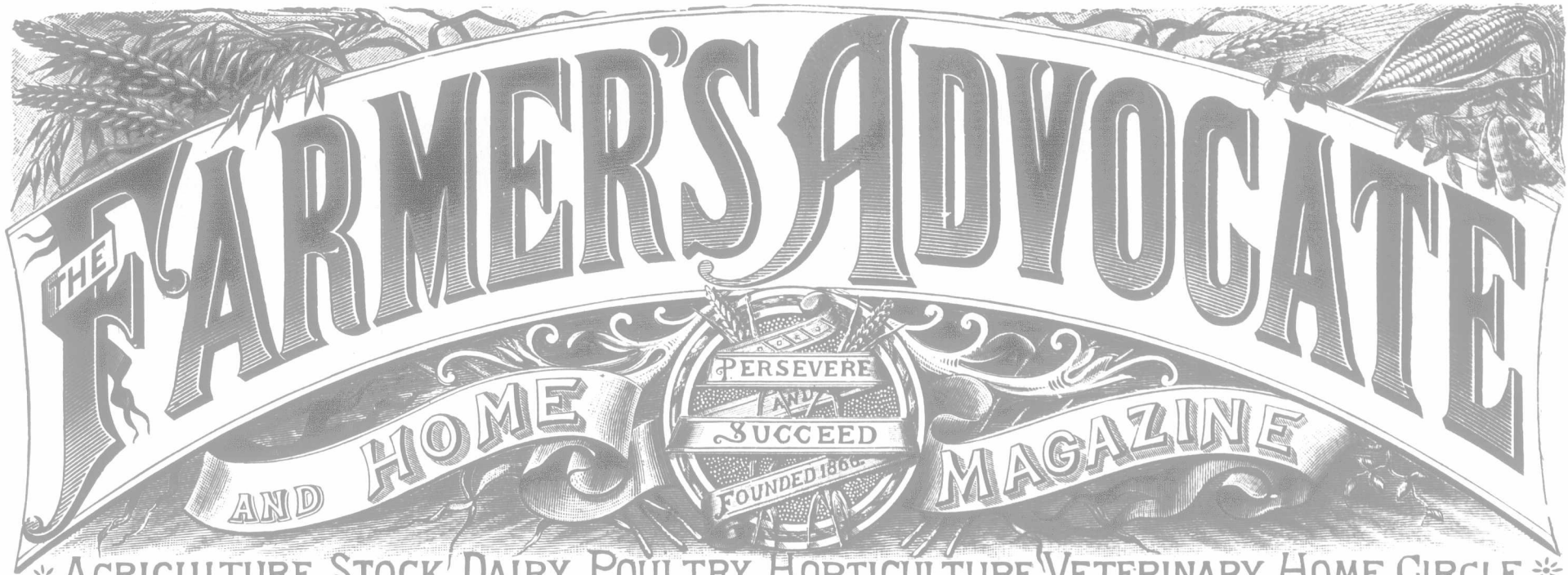


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VOL. XXXVII.

WINNIPEG, MAN.

JULY 5, 1902.

LONDON, ONT.

No. 553

# MASSEY-HARRIS HAYING MACHINERY

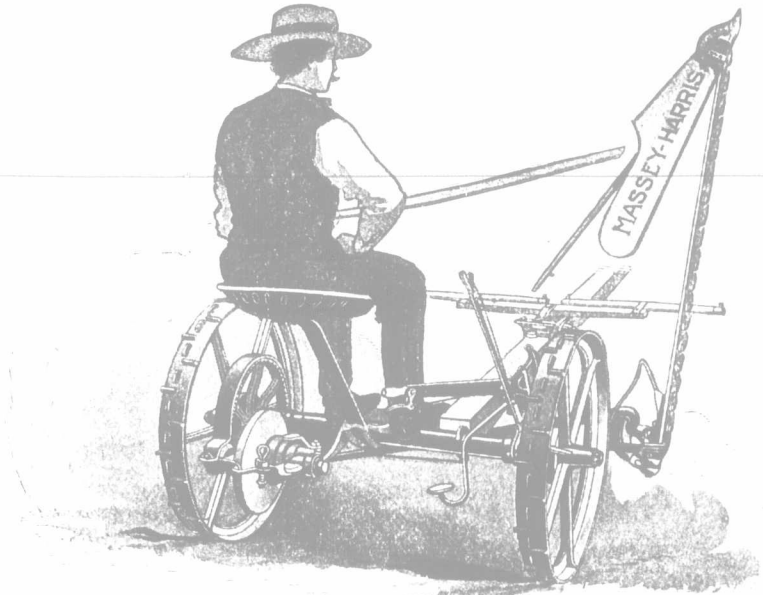
PLEASES EVERYONE

A particular feature of the Massey-Harris Coupling Bar is that it is adjustable at both ends. : : :

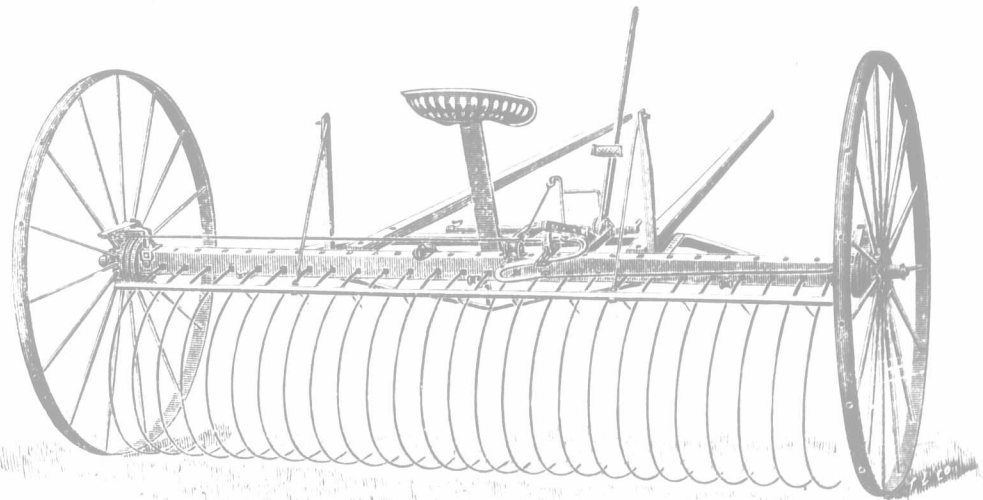
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They suit all kinds of land. : : :



There are Roller Bearings wherever they can be utilized to advantage.



The Frame may be at an angle of 40 degrees, but the Bar still adapts itself to the necessity. : : :

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Reserve, \$1,500,000;  
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INDIAN HEAD, N.-W. T. MOOSE JAW, N.-W. T.

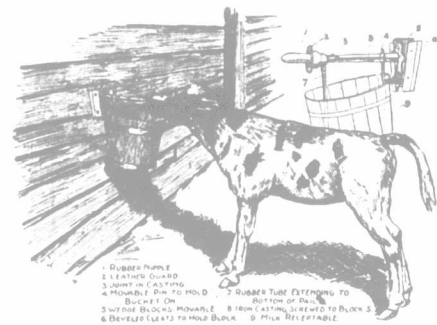
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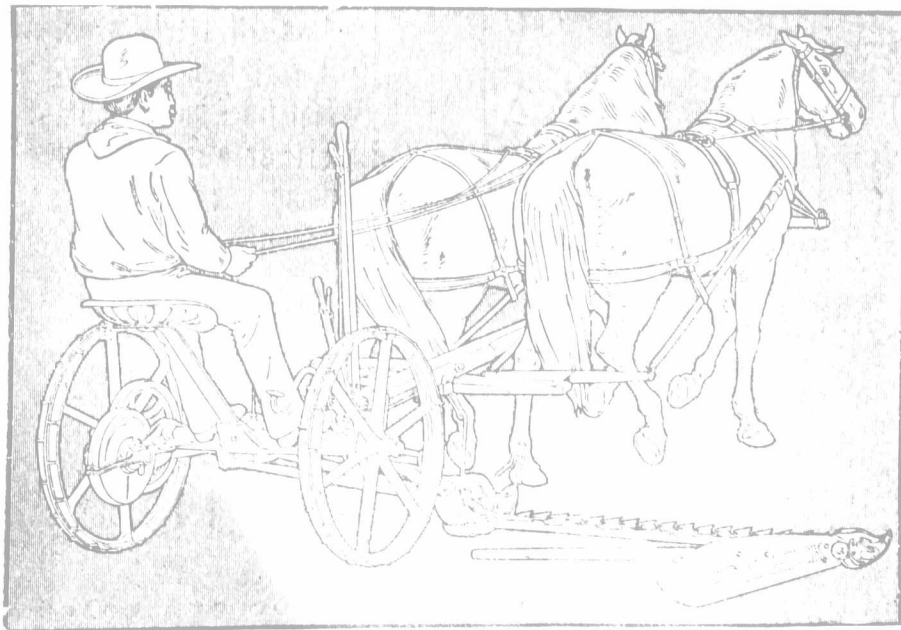
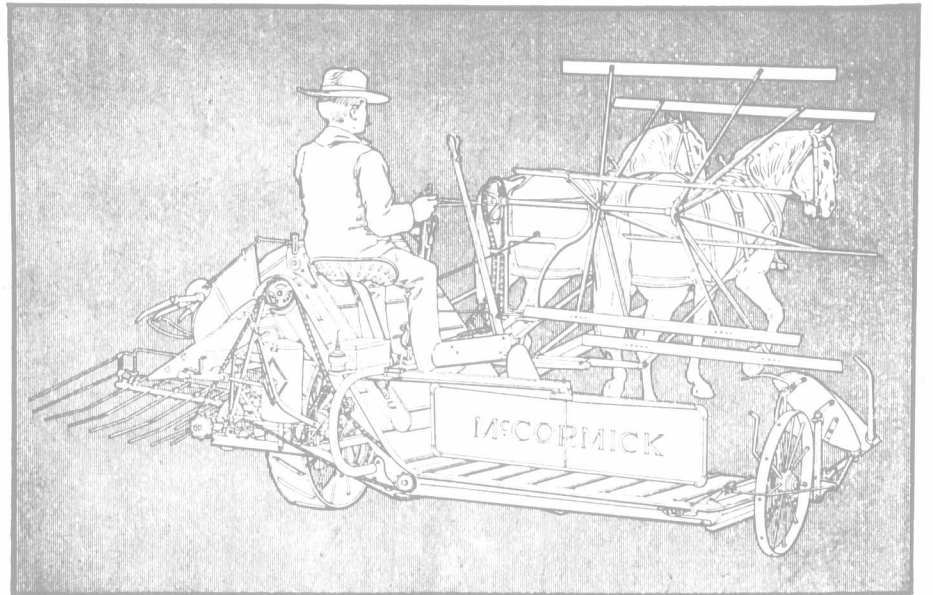
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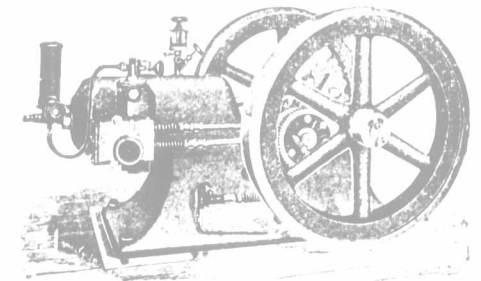
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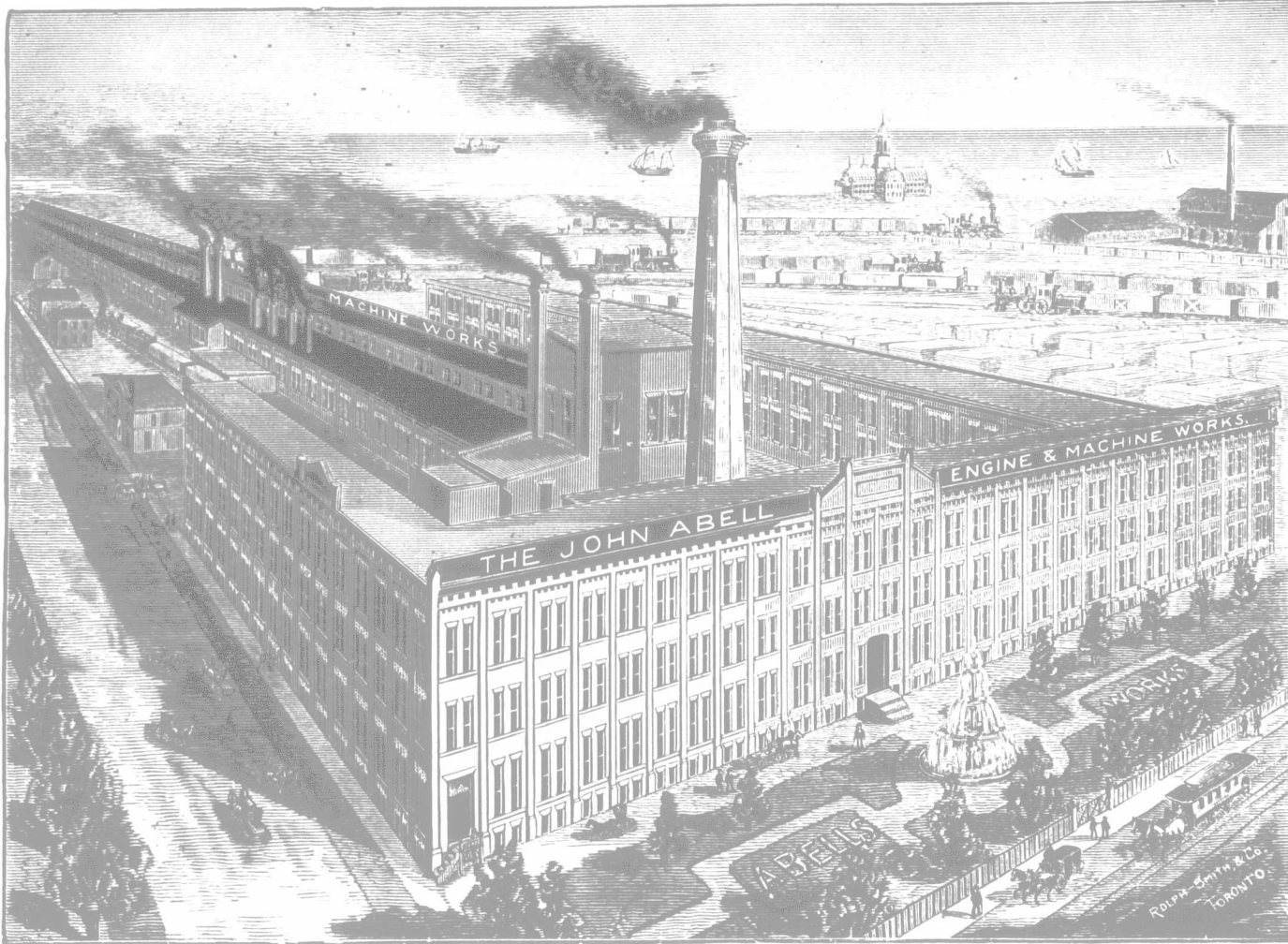
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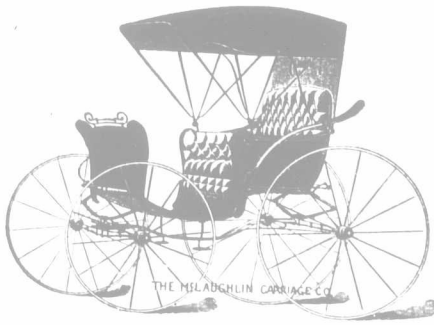
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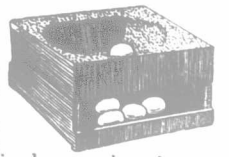
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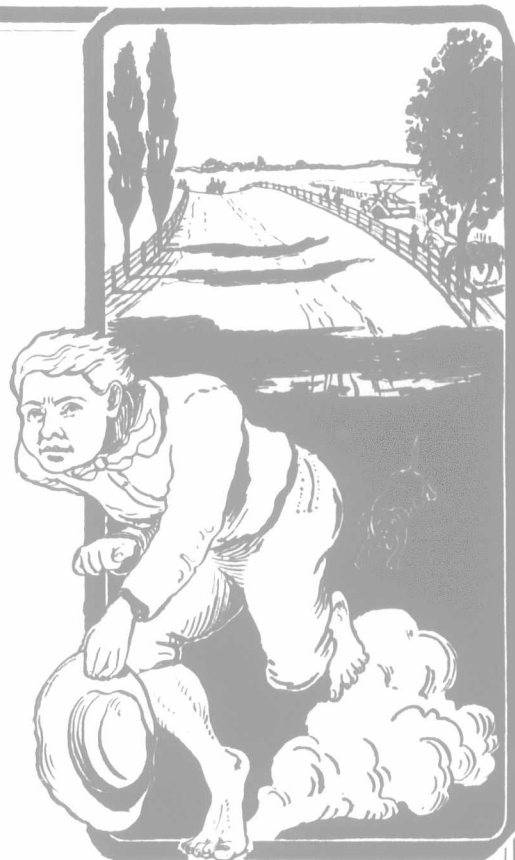
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# FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. XXXVII.

WINNIPEG, MAN., AND LONDON, ONT., JULY 5, 1902.

No. 553

## The Question of Good Roads.

Transportation is one of the most important problems with which the West has to wrestle. The railroad transportation question is slowly being solved, and if we do not have a repetition of the peculiar combination of circumstances that took place last fall, it is possible that we may not have another serious blockade for some little time.

There is another phase of the transportation question, however, that has been forcing itself very much into prominence this season all over the western country, and that is the question of traffic roads.

The block system of land survey, excellent as it is in many ways, has, of course, some disadvantages, and one of these is that as settlement increases in a locality, the traffic is forced off the old trails, which generally follow the driest and best natural roadways, onto the surveyed road allowances, without any reference to the nature of the ground. In a series of comparatively dry seasons, such as have prevailed for a number of years, not much difficulty is experienced, but with a season of unprecedented rainfall, such as the present, there are few sections of the country from the Red River to the Rocky Mountains where very great difficulties are not being experienced. Another difficulty in connection with roads, in Manitoba at least, is that we have borrowed from the older provinces the antiquated system of statute labor, a system that, to say the least, is not calculated to produce good roads. In the Territories the Government is trying to work out a better system, but they are laboring under the stupendous difficulty of having to administer an enormous territory, much of which is very thinly settled and at the same time greatly hampered financially; in addition to which there are in some districts great natural difficulties, as is shown by the petition presented by the residents of Northern Alberta to the Federal Government and published elsewhere in this issue. In Manitoba, divided as it is into a large number of municipalities, each under its own government and each experimenting on its own account on road building, with the system of statute labor still in vogue in most of them, the results are far from satisfactory.

A careful study of what is now being accomplished in Ontario through the road department of the Provincial Government, which is under the direct supervision of a competent highway commissioner, will convince anyone of the wisdom of the system, and, no doubt, interested parties may obtain, on application, copies of the very excellent bulletin recently issued by the Ontario Department of Roads, giving full accounts of the good roads movement, the legislation regarding highway improvement, the procedure under that act, the abolition and commutation of statute labor and also a description of approved methods of constructing roads of various characters, construction of drains, making concrete culvert pipe, descriptions of road machinery, etc. There is so much valuable information in this pamphlet that it should be placed in the hands of every reeve, road inspector or pathmaster throughout the country, and doubtless special copies could be obtained at small cost by our Department of Public Works.

A valuable bulletin has also been issued by the Public Roads Inquiry Department of the Department of Agriculture at Washington on earth roads. It contains much practical information regarding drainage and construction of earth roads, the use of road machinery, building culverts, etc., etc. In the building of any road, drainage is of first importance. Well-laid-out and well-made ditches

are of just as great necessity in most localities as well-built grades. The amount of time and money frittered away annually on the education of new and untried pathmasters and road overseers would, under a well-directed system, go far towards giving us roads that would at least be passable and every year's work would improve.

In a level prairie country, with no other material available for roadmaking than the rich black clay loam, there are difficulties enough to contend with without the additional one of bad management and lack of system.

## A Covered Pavilion for Cattle Judging at Winnipeg Industrial.

An innovation of very great importance as an educational feature is to be introduced at the Winnipeg Industrial this year, in the way of a covered stock-judging pavilion for the cattle classes. A portion of the implement platform, which is located quite near the cattle barns, is to be appropriated for this purpose. Separate rings will be provided for each class of stock. These will be enclosed and none but the judges and the attendants in charge of the stock will be allowed inside the rings. In compliance with a request from the Cattle Breeders' Association, the management is trying to provide three judges for the cattle this year, instead of two as formerly, viz.: one for Herefords, Polled Angus and Galloways, and one for the dairy breeds. The three classes can then be judged at the same time, and the judging can be got through with early in the week. It is also proposed to have a judging time-schedule arranged, by which both exhibitors and visitors may know exactly when the various classes will be called. Seats will be provided along each side of the rings, thus affording excellent opportunity for spectators to follow the work of the judges. Every breeder recognizes that the winning of prizes is not the only object in exhibiting stock; the publicity obtained is of far more importance, and, of course, the more people witness the judging the better the publicity, as people are thus educated and interested in live stock. Every exhibitor will, therefore, naturally do all in his power to facilitate these objects and thus advance his own interests, by seeing that full and accurate information is furnished to the secretary regarding his entries for the compilation of the live-stock catalogue, and will then see that every animal on entering the judging ring wears a number card corresponding to his catalogue number. These details are worthy of attention, and it is to be hoped when the classes are called on Tuesday morning of exhibition week that the exhibitors will have done their share toward making the judging of the cattle one of the great features of the fair. The management of the Winnipeg Industrial are to be congratulated on keeping so well up to the leading fairs of the continent in matters of this kind. Agriculture is coming to its own, the managers of all the principal fairs on the continent are recognizing the necessity of catering to those elements that make for agricultural education. Government grants to fair boards are restricted chiefly by the rural representatives on the ground that too much time and money are devoted to the attractions and racing features, but as soon as the rural population sees that agriculture and live stock is receiving its due proportion of attention from the fair managers, then will there be a readiness to devote public moneys to the upbuilding of the big fairs, through the instrumentality of which it is possible to accomplish so much for the advancement of the live-stock and agricultural interests of the country.

## A Forecast of the West.

The Toronto Globe has put its readers in Ontario and Eastern Canada generally under renewed obligations, and rendered the West good service by the extended series of letters written by a capable staff correspondent, who made a personal visit, recently, to the leading centers of the country. In the main, the deductions which he draws from his observations coincide very closely with the condition, progress and prospects of Manitoba and the Northwest as portrayed with pen and camera in the recent Immigration number of the "Farmer's Advocate." In summing up his impressions, the writer in the Globe truthfully says:

"After one sees the new farmhouses that in hundreds dot what were but two years ago uninhabited wastes, examines the records in the Government land offices, and watches the tide of European immigration that flows through Winnipeg, and the still greater volume on the Soo line from the United States, there is no longer room for scepticism, and even the most doubting Thomas must be satisfied that Western Canada has at last aroused the world's attention."

Mr. J. Obed Smith, Commissioner of Immigration, estimates the number of immigrants during the present calendar year at from 70,000 to 75,000, and he believes the number will increase from year to year till it may reach a maximum of 250,000. The view is confidently entertained that the census of 1911 will show from 1,250,000 to 1,500,000 people in the West and the close of the century 50,000,000 people, all told, in Canada. With regard to the development of the West from a moral and intellectual standpoint, the Globe's correspondent takes a most hopeful view. He notes the three following new elements of progress in the rapid settlement of the country:

1. American capitalists seeking an outlet for surplus funds formerly used in land operations at home have invested very largely in Canadian lands, and will advertise them all over the Union.
2. The American pioneers and frontiersmen, who have led the movement of settlement in their own country, from Iowa to Minnesota, and from Minnesota to the Dakotas, have reached the limit of the good land in their own territory, and are coming to Canada in thousands. The reports they are sending back will for many years to come result in increasing immigration from the United States, for the land they are settling upon is admittedly better than that of any of the States west of Iowa.
3. The rush of European immigration into the United States, which was begun when there were vast tracts of free land there, still continues, and cannot be stopped speedily. Many years must elapse before it becomes generally known to European agriculturists emigrating to America that there is no longer room in the Western States. A large part of these belated land-seekers will cross the border into Canada and find homes with us.

The great irrigation project upon which the chiefs of the Canadian Pacific Railway are engaged in the irrigable belt of over 2,000,000 acres awaken the enthusiasm of the correspondent. He refers to the 116 miles of canal, the storage of billions of gallons of water in reservoirs formed out of natural depressions, and the diversion of the waters of the Bow River, whereby a great stretch of territory, nearly 200 miles easterly from Calgary, can be irrigated. He predicts that out of that southern Alberta area, and including the Lethbridge and other ditches, 25,000,000 bushels of wheat and 500,000 cattle annually can be taken; and quotes C. P. R. reports as indicating that 250,000 cattle can be pastured under irrigation where 50,000 are now kept. The market for the increased cereal production of the eastern slope of the Rockies, he

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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AND N.-W. T.

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foresees in the newly-awakened China and Japan.

From what has been written, it is evident that some large irrigation projects are looming up in the future. While there are millions of acres that need no irrigation, but only await cultivation to blossom into abundant crops, the irrigation question will not become so sharply defined in the public mind, nor will irrigation projects continue to be developed strictly as railway or private enterprises, and not made a general charge against the taxpayers of the country. This phase of the subject certainly deserves consideration in view of the alleged exactions of irrigation monopolists in California and elsewhere in the irrigated U. S. areas, and the bitter opposition awakened in the eastern States against being required to share in the outlay for irrigation exploits that develop vast areas in the West as fresh competitors with the eastern landowner.

Another question to be considered is the control that governments should retain of the water supply upon which the productiveness of the irrigable areas depend and which in the future will be required for settlement.

### Farm Siftings.

The old folks sometimes think the fair cannot get along without them, or that it is hardly safe to let the boys out among so many temptations. Now, while it is very important that the older people should be present at the fair, if the fair is any good from an educational standpoint, is it not just as possible that the young folks could learn more at it than the older ones? Rest assured, parents, if you do your duty by your children when bringing them up there is little or no fear of them going astray when the apron-string is cut.

Institutes, plowing matches and picnics have been greatly interfered with this year by wet weather and bad roads. The season, however, furnishes ample opportunity for study at home, in the yards, fields, as well as on the roads. The necessity for drainage about the buildings and farm is made clear. The need of more substantial road bridges and culverts and main road drains is also demonstrated, and in our field cultivation the need for limus (root fiber) is more than ever made plain. Crops are better on new land, back-setting or plowed sod, not because the soil has had a rest, but because of the grass roots making it warmer, less apt to bake and less liable to wash with heavy rains.

### The Winnipeg Industrial.

The Winnipeg Industrial Exhibition, to be held on the 21st to 25th of this month, has become one of the permanent institutions of the country, and while, doubtless, everybody would consider it a calamity if from any cause this exhibition should be closed down, still there is a great deal of criticism from some quarters bestowed upon the fair management, chiefly on account of the prominence given in the advertising matter to the



J. T. GORDON, M. P. P.

President Winnipeg Industrial Exhibition.

attractions and such like features. The Exhibition Board gets but small financial aid from the provincial and civic treasuries, and in order to keep the fair up to the high standard it holds among the leading fairs of the continent, is obliged to make a large revenue, and experience teaches them that revenue can best be made by catering to the people who want entertainment. It should, however, not be forgotten that the exhibition people apply annually a very large proportion of their revenue toward the advancement of the agricultural interests of the country. In addition to the very large amount of money contributed annually to the prize list, an enormous sum has been devoted to stabling for the live stock and buildings for the various exhibits. And apart from the great stimulus given to the breeding of pure-bred live stock of all kinds, the encouragement of the grain-growing, dairying, horticultural and other kindred interests, the work done by the Winnipeg Exhibition in advertising the resources of the West has not been equalled by any other agency. To them more than to any other single agency belongs the credit of first attracting the attention of our neighbors to the south of us. Year after year the Northwestern States were flooded with advertising matter by the Winnipeg Industrial, followed by the inauguration of special excursions from the neighboring States, till finally the tide of immigration began to flow our way. To many of the prominent features of the prize list the "Farmer's Advocate" has in previous issues called attention. Indica-



F. W. HEUBACH,

Secretary and Manager Winnipeg Industrial Exhibition.

tions at present point to a larger showing of live stock than in any previous year. The large prizes, the comfortable accommodation for the stock and the assurance of the best procurable expert judges that can be obtained make it not only profitable but pleasurable for all classes of stock breeders to spend the week at the fair. The new judging pavilion for the cattle classes will lend additional interest to this feature. In the main building a transformation is being effected, and a moving industrial exhibition of great practical interest is to take the place of the somewhat familiar shop-window displays of previous years. The process of manufacture of very many lines of goods will be shown, and the big building will

represent a veritable hive of industry. The magnificent race programme and the big purses offered has served to attract some of the fastest horses on the continent, and as a race meeting it promises to eclipse anything ever before held in the West. There are 19 great events, 8 trotting and pacing races, 8 running and hurdle races and one team running race. The Citizens' Purse, which is on Tuesday's programme, is for a purse of \$2,500, while the free-for-all, on Friday, is for \$3,500. The attractions before the grand-stand promise to exceed even the excellent programme of last year. They include such thrilling scenes as the great bicycle act of Diavolo in looping the loop, the high dive, ceiling walk, cycle whirl, acrobats, wild animal shows, and other features too numerous to mention. Each evening's programme will be brought to a close with the great spectacular reproduction in fireworks of the historical "Burning of Moscow."

### The Inspection of Range Cattle from the South.

The following letter relating to the importation of cattle from the Southern States has been sent by the Dominion Chief Veterinary Inspector, Dr. Rutherford, to the Commissioner of the N.-W. M. P.:

Sir,—I telegraphed you Saturday morning asking you to instruct your Inspectors to insist on U. S. official health certificates with all southern cattle, and if these are not forthcoming, to detain such cattle and inspect them closely for Texas fever and cattle ticks. You are aware that the United States hold quarantined on account of Texas fever a large number of Southern States. The most recent regulations in my possession include in the infected area the States of California, Texas and the Indian Territory, and the States of Arkansas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Tennessee and Virginia. The only time in each year during which cattle are moved north of this quarantine line without inspection is from 1st of November to 31st December. During the rest of the year cattle are only allowed to be shipped north when intended for immediate slaughter and then under the closest possible supervision and with every precaution to prevent the spread of the disease.

Stock-yards and watering places used by southern cattle in transit north are carefully isolated, thoroughly disinfected and their use forbidden to other animals, while all cars and boats occupied by such cattle have to be thoroughly cleaned and disinfected before being used again. All cars carrying cattle from the quarantined territory bear placards stating that said cars contain Southern cattle, and every waybill or bill of lading of such cattle has a note upon its face with a similar statement. This applies to cars in which such cattle are reshipped and to the waybills on reshipment.

The only exception made is in the case of cattle originating in the said infected area, which may, after having been properly dipped under the supervision of an Inspector of the Bureau of Animal Industry, be shipped without further restrictions except such as may be enforced by local authorities at destination. This privilege is only granted, however, on condition that application be first made to the U. S. Government, and that after being dipped the cattle are certified by a U. S. official Inspector and shipped without being again unloaded in the infected area.

I understand that there are rumors of large importations from the Southern States to the Territories in the near future. In view of these facts I would ask you to instruct your inspectors at the boundary to enforce strictly Sec. 22 of the regulations relating to "Animals Quarantine" and to refuse to permit them to enter Canadian territory unless accompanied by a certificate of inspection signed by an official veterinarian of the U. S. Government, showing that the animals are free from contagious disease, and that no contagious disease of cattle (excepting tuberculosis and actinomycosis) exists in the districts from whence they came. It would be well for you to give as much publicity as possible to this order, and where practicable to notify persons at present intending to bring cattle from the Southern States to the Canadian West. In the case of the cattle shipped to Saskatoon by the Gordon, Ironside & Fares Co., I think it would be well to send an inspector to make a very close examination of the animals, and if any signs of Texas fever or fever ticks are discovered, to place them immediately under strict quarantine. This suggestion will also apply to any other cattle of which you may have knowledge, recently imported from the quarantined district in the South.

Every now and then we hear of some farmer losing his property by fire and having no insurance. Is it carelessness or is it ignorance? Whatever the cause, it is advisable to neglect such matters. In placing your insurance, select a reliable company, read carefully the policy, making sure that you fully understand all the provisions, and give the matter attention at once.



**A New Hybrid Wheat.**

A new variety of wheat is being introduced into Britain. It contains one cross of spelt, which is said to be very rich in gluten. The Farming Gazette thus describes the New Era variety:

"A point which has always told against British wheats has been their weakness in gluten. They are, compared with some of the foreign, what millers call weak; in fact, the 'weakness' in wheat means deficiency in gluten. It is the gluten that causes the bread to be light. If dough is deficient in gluten, the particles are not strong enough to contain the gases generated during fermentation caused by yeast or other leaven; the little bladders burst and the mass collapses, with the result that the bread is heavy. To rectify the weakness of English wheats, foreign wheat has to be used, and as glutinous wheats are difficult to obtain, those samples rich in gluten are priced some shillings above the British-grown. It is not a matter of climate, but is due to the natural features of the variety. We understand that Messrs. Garton, who have become so much identified with new breeds of oats, are going to celebrate the Coronation year by placing upon the market a new series of wheats, the result of skillful cross-breeding. The feature of these wheats is that they contain a strong proportion of spelt wheat (the *Triticum Spelta* of botanists), which is found in Southern Asia. Spelt wheat has not been hitherto utilized for human food, partly because it is not, of itself, a very productive variety, and partly because the husk fits so firmly on to the grain that it is not convenient to work it. It, however, contains gluten to a degree not met with in anything like the same proportion in cultivated kinds. Messrs. Garton, in their experiments in cross-breeding, managed to secure a cross, and this has been incorporated with other breeds. It is one of these, aptly named the 'New Era,' that they announce their intention to place on the market this year. This new breed has the following pedigree:

Talavera	Spelt	Bartweizen	Fultz
(English)	(S. Asia)	(Hungarian)	(American)

We have seen this breed growing in the different fields during the past two or three years while the stock has been accumulating, and can testify to its suitability to the British climate in spite of its cosmopolitan origin. It ripens in good time, a characteristic it gets from the Talavera; the grain is of medium size; the color, amber translucent; the ear long, compact and bearded; straw, long, strong and of fine texture. Like all the wheats which have a cross of spelt in them, the back of the grain is rather highly ridged, and this will be a useful guide in the future to prove the presence of this gluten-bearing species. The translucent texture of grain now shown has been the want in British wheats, whose tendency to a chalky whiteness, owing to excess of starch, indicates their weakness in gluten.

**Crop Conditions.**

The crop conditions of the grain-growing sections of the West are satisfactory. The excessive rains that fell during May and June had the effect of delaying seeding to some extent, but the rapid germination very quickly brought on the later sowing, and with the exception of low-lying, undrained lands upon which water lay, the crop is generally healthy and well advanced. The cool weather of the last half of June, following the heavy rains, saved much of the crop from scalding. Generally speaking, weeds have been fairly well held in check by the late sowing and rapid growth of grain, and fields everywhere present a very clean appearance. In some localities soil has washed badly, leaving fields deeply seamed with water runs, which will give great inconvenience at harvest time. Had the soil in these localities been kept full of root-fiber by a grass rotation, the chances are there would have been no washing. The season has been most favorable for seeding down and for tree growth. The hay crop, with favorable weather for saving it, will be very abundant. The cultivated grasses will yield heavily and wild hay can be got off higher lands than usual, consequently it will be of better quality.

**Lessons from the Plowing Match.**

The man is more than the plow.  
The men who do their level best from day to day on the farm come out ahead at the plowing match.  
A first-class plowman with a first-class plow is nowhere if handicapped with a bad team.  
The unsuccessful competitors gain something of more value than prizes when they turn their failures to account, while the onlookers gain nearly as much as the competitors.  
We need not fear for the future, when boys like the Dows, of Portage Plains, can plow such a good furrow.  
The future of farming in Manitoba will be safe in such hands. The wish and prayer of every citizen of Manitoba should be "God speed the plow."  
D. MACVICAR.

**Prof. Curtiss on the Bacon Hog.**

In an address before the Island-China Breeders' Association of Iowa, Prof. Curtiss, the Professor of Animal Husbandry of the Iowa Agricultural College, in referring to the bacon hog, said:

"The objection that the hogs of the bacon type are not as economical producers as the more compact corn-belt type, represented by our popular breeds, is not well founded. The evidence of recent investigation, supported by practical experience where accurate observations have been made, indicate quite conclusively that the modifications of the hog under domestication have been in the line of increasing his stomach contents and digestive capacity without materially increasing his digestive efficiency. Domestication has increased the length of the intestinal canal of the improved hog; this enables him to consume, digest and assimilate a larger quantity of feed, but it has not been demonstrated that his modified digestive organs do the work any more thoroughly than those of his wild ancestors. The same principle holds true in comparing the bacon and corn-belt types of hogs. The result of three years' investigation in determining the cost of pork production and the relative value of the finished products with various breeds of hogs, at the Iowa Experiment Station, have been published in bulletin 48, and may be summarized in the statement that there is no material difference in the cost of a pound of pork in the feed yard by the different breeds. Of course, the corn-belt type fattens much more readily than the other, but they are not capable of making much, if any, greater gains in a given period or from a given amount of feed. The difference is due chiefly to the kind of product made from the feed rather than any variation as to the amount.



MR. D. MEWEN'S FARMHOUSE, NORTH BRANDON, MANITOBA.

The market demands have also changed in reference to the valuation put upon the different cuts; while the American breeds of swine were in process of formation and development, hams were the high-priced products. To-day they take second rank, and the higher-priced cuts are the sides which produce the bacon. The width of back and development of the ham are, therefore, subordinate to the length, depth, fineness and smoothness of the side, and I believe that our American breeds are certain to undergo a modification governed by these conditions in the near future. This modification will also be conducive to greater vitality and more prolific breeding qualities, which the farmer or producer for the block so much desires, and the breeder of pure-bred stock and the expert judges should not lose sight of the demands of the producer and the considerations of practical utility and profit.

**Manitoba Fruits.**

Dr. Saunders, Director of the Dominion Experimental Farm, read a very interesting paper before a session of the Royal Society in Toronto, Ont., recently. It dealt with a series of remarkable experiments made by him in his endeavors to produce a hardy apple suitable for Manitoba and the Northwest. These experiments consisted of crossing hardy Canadian varieties with some dwarfed Siberian species, and an apple of good size and flavor has been produced that appears as if it will thrive in the far northern districts. With the same object in view experiments have also been made with cherries, gooseberries, black currants and plums. These all turned out more or less successful, and from all of these Dr. Saunders is of the opinion that Manitoba and the Northwest may yet rank above other provinces in fruit-growing, as they do in wheat-growing at the present time.

**White Markings on Horses.**

The horse market in Europe is very strict in its prejudice against white markings on horses; so much so that there is comparatively little demand from the Continent for the British breeds. A writer in the English Live Stock Journal speaks on this point. Is what he says correct, or are not the breeders of Britain and of this country just as wise in not paying so much attention to white markings?

In 1898 the Government Professor of Agriculture for the West District of France attended the Shire horse shows in London, on my recommendation, with a view to buying some stallions; but when he saw the amazing amount of white in nearly all of them he absolutely declined to have anything to do with them, and on his second visit he actually hinted to me that I had brought him over on false pretences. When I suggest to Italian and Spanish breeders to come to this country for their horse-breeding stock, and I have to own to the presence of white legs, feet and blaze, they shake their heads and at once decline. In this way the chance of a foreign market for some of our surplus stock is reduced, and this is a fact that should be regarded seriously by our breeders. These markings are known to be detrimental to the lasting powers of a horse, and yet no attempt is made to limit them or breed them out. They are wonderfully on the increase in many strains of the Shire horse, and, as far as legs are concerned, they now sometimes reach the stifle and beyond. White when it once appears is difficult to confine within given limits. I speak from experience as a breeder in former years, and

winner at Smithfield of 'Improved' Berkshire pigs, a large proportion of which would always appear with white spots on the body and white ears. I know I shall be told that a chestnut horse, which is a fine goer, and is disfigured with the hideous accompaniments of white legs, feet, and blaze, brings more money in Paris than anywhere else. This is true enough; but Monsieur de Paris is not a breeder, and, fortunately for France, her breeders are more long-sighted. The Government haras on the Continent are mainly established for the production of hardy, wearing horses for the various armies. Let us, before it is too late,

wake from our self-satisfied position and take a lesson from the foreigner. We can learn much from him, and more still from the United States."

The prejudice against "white points" in horses is well established at home as well as on the Continent. It has been put into axiomatic succinctness in the well-known doggerel:

- One white foot: buy a horse.
- Two white feet: try a horse.
- Three white feet: look well about him.
- Four white feet: go without him.

**The Grasshoppers.**

This has been a very favorable season for holding in check the grasshoppers, which have been so persistent in their efforts to gain supremacy over the crop area of the light soil sections adjacent to the sandhill country of the Assiniboine River. Mr. McKellar, of the Department of Agriculture, recently made an extended inspection of the locality most affected, and addressed meetings of farmers at Wawanesa and Routhwaite. He reports that the luxuriant vegetation of this season is supplying the hoppers with such an abundance of food that they can make little impression upon it. The farmers are also making a very systematic crusade against them, using with excellent effect Paris green for poisoning the critters. For applying the poison, the following plan has been found, after extended trial, to give best results: One pound of Paris green and one pound of salt was thoroughly mixed with about half a barrel of pure, fresh horse manure, and this bait dropped in bits about the size of a hen's egg along the borders of the crop. Bran has been generally recommended for this use, but it is claimed that the horse manure was even more tempting to the hoppers, and has the extra advantage of being cheaper.

### Camera Competition.

Last year the "Farmer's Advocate" conducted a camera competition which proved decidedly popular. The large number of amateur photographers who sent in samples of their work and the artistic excellence of the photographs indicated in a surprising degree the progress that has been made in that direction. Many of the photos were quite equal in artistic excellence and execution to the work of professionals, the subjects selected showing great variety and interest. So encouraging were the results, that we have decided to announce another competition open to amateurs, and to offer much larger prizes than we did in the competition of 1901. We now offer eight prizes, as follows: 1st, \$10; 2nd, \$7; 3rd, \$5; 4th, \$3; 5th, \$2; 6th, \$1; 7th, \$1; and 8th, \$1, for the best photographs of country homes, individual animals or groups, ranch, field or garden scenes, bits of scenery, tree plantations or individual trees grown under cultivation, or anything of that nature, subject to the subjoined rules:

All photographs must be not less than 4 x 5 inches in size, mounted or unmounted, and be the work of amateurs.

All photographs must be clear and distinct in detail and well finished.

They must reach the "Farmer's Advocate" office, Winnipeg, Man., not later than October 1st, 1902.

The name of the competing photographer and post-office address, and the name and location of the scene, must be marked on the back of each photo.

Any person competing is at liberty to send more than one photograph if desired, but only one prize will be awarded to the same individual.

All the prizewinning photographs will become the property of the "Farmer's Advocate" for the purpose of illustration. We reserve the right to purchase, at 25 cents or 35 cents each, according to size, any photographs that do not win a prize.

No photograph is eligible to competition from which an engraving has previously been made, and photographs must be the work of competitors.

### The Valedictory of Our Pioneer Breeder.

To the Editor "Farmer's Advocate":

Can I use your columns to say (in my capacity as a breeder) good-bye to the breeders, stockmen, farmers and agricultural papers of the West, and thank them all for the many kindnesses they have shown me in the past, and to assure them it is with no little feeling of sorrow I part with them. But it is particularly gratifying to know that the act of parting has been the means of putting the stock interests of the West on a better footing than it ever had before. I confess I felt my sale would be a critical point, not only in my own interest, but in the interest of all stock-breeders. The breeders felt this too, and were prepared to stand loyally by me and force a successful sale if necessary. But they never got a chance. They had all they could do to keep out of the way of people who wanted cattle and were willing to pay fair prices for them, and when Jimmy McKenzie opened the sale with a bid of \$200 it made some people gasp. But Jimmy had no time for gasping, for it took him all his time to keep out of the way of half a dozen others who wanted his choice at double his starting bid. And that continued to the end, and when the lot was exhausted people were calling for more cattle, and would have paid more money for another lot, just like them. It was a surprise to me to find such a widespread demand for the cattle, but it must have been a revelation to those who thought a couple of hundred dollars an outrageous price for a cow. To the breeders, the outlook must be most hopeful. They see now, without a possible chance of doubt, that there is a demand for their stuff right at their doors. This is the first opportunity there has been for a long time to test just what the demand is, and even this is not a fair test for there was not enough stuff. It is certainly most gratifying to me to have the business in such a flourishing condition. And now in parting, I may be allowed to make one suggestion to all breeders, and that is to look out for weaknesses in your own herds, rather than in your neighbors'.

Again thanking you for making my sale such a success and for all other kindnesses, believe me,

Yours truly,

WALTER LYNCH

Westbourne, Man., June 16th, 1902.

### When to Cut Hay.

All good stockmen know that hay of good quality is essential to good gains. Unfortunately not all know how and when to make hay that will be of good quality. Climatic conditions, the amount of moisture in the soil, and other factors not easily controlled, enter into the problem, making it one of the most vexatious tasks on the farm. Setting aside the losses from weathering, which cannot always be avoided, much of the value of hay is lost in not cutting at the right time. This loss is avoidable, and any depreciation of value from this source is usually due to gross negligence.

The elements of food contained in hay are protein, carbohydrates and fats. In order to get the largest aggregate amount digestible of these elements, hay should be cut before the seeds begin to ripen. The full amount of protein is present when the plants are in bloom, and there is a gradual decrease in this element as the grass ripens. The fats likewise decrease in amount the farther the plants get beyond the flowering stage. It is generally known that the yield of hay is larger when the grass is well ripened before cutting. This increase in yield is due to the increase in quantity of crude fiber largely, which is not valuable, and of carbohydrates. In order to gain in yield of carbohydrates it is necessary to sacrifice a portion of the protein and fat. Since the hay is more palatable and also more digestible when cut early, it is wiser to put it up early and get the full amount of protein at the expense of carbohydrates.

The following table, calculated from analyses given in "Henry's Feeds and Feeding," shows the comparative value of early and late cut timothy:

Growth	YIELD PER ACRE.				
	Yld.	Pro.	Fiber.	C.H.	Fat.
Full bloom.....	4180	288	1436	1877	131
Nearly ripe.....	5180	259	1616	2263	113
AMOUNT DIGESTIBLE PER ACRE.					
Full bloom.....	4180	110	727	1182	76
Nearly ripe.....	5180	116	759	1357	60

It will be noted that both the yield and amount digestible of protein and fat is highest in the early-cut timothy. In yield per acre of crude fiber and carbohydrates the late-cut is ahead. But in digestible crude fiber the early-cut hay has a decided advantage, leaving the only net gain for late-cut hay in the amount of digestible carbohydrates.

Other experiments conducted along these lines go to show that young stock grows best on the early-cut hay, on account of the palatability and large amount of digestible protein. Fattening animals and work horses will do better on hay that is somewhat more mature when cut, as more carbohydrates are used at that period, but under no circumstances should it be allowed to ripen seed when wanted for hay.—Prof. Boss in Farm Stock and Home.

### Diarrhoea in Calves.

Cases of ordinary diarrhoea are of frequent occurrence among young calves, and in the majority of cases are directly due to digestive troubles, usually the result of carelessness or errors in dieting. Irregularity in the hours of feeding is one of the chief causes of trouble in this connection, while in some districts the injudicious use of skim milk, upon which the calves are sometimes allowed to gorge themselves, is also responsible for not a few cases of scour. Much may be done to prevent scours so caused by the observance of regularity in the hours of feeding. For the first fortnight or three weeks, the calves should be fed at least three times a day, and after that, the two meals given to them should be fed at as regular intervals as possible.

In dealing with cases of ordinary diarrhoea of this kind, the most effective course to pursue is to give the affected animals a dose of from 2 ozs. to 4 ozs. or 5 ozs. of castor oil, the quantity depending upon the age and size of the patient. For a calf up to two months of age 2 ozs. of the oil is quite a sufficient dose. Above that age, 3 ozs. to 5 ozs. or 6 ozs. may be given. When the oil thus administered has taken effect, it should be followed up by a series of doses of some good cordial. For cordials of this kind there are many recipes in common use. One that we have always found productive of very good results, consists of

Peppermint water.....	1 pint.
Prepared chalk.....	2 ozs.
Tincture of catechu.....	1 oz.
Tincture of opium.....	1 drachm.
Bicarbonate of soda.....	2 drachms.
Powdered cassia.....	1 drachm.

C. S. Plumb, professor of Animal Husbandry in Purdue University, goes to Ohio State Agricultural College at Columbus, Ohio, to study the importance of live-stock husbandry, and made an appropriation of \$2,000 to purchase a number of pure-bred animals for the collection.

### The Disk Plow.

To the Editor "Farmer's Advocate":

Sir,—Quite a large number of disk plows have been put out in this country lately, and judging from the way they worked this spring, they have proved anything but a general success. Those who are thinking of buying should satisfy themselves that they really need a disk and that it is going to do better work than their moldboard plows before they invest. It is true they draw a little lighter than a moldboard plow will when plowing at the same depth, but then it is not always necessary to plow land six inches deep, and the disk has to go that depth before it will make a decent job at all. Then it is not a high-lift plow, and we have nearly all had experience with the old low-down gang. When turning it around the end of a land or in drawing it from one field to another, it is almost impossible to keep it out of the ground, and it leaves a ditch behind it wherever it goes. In wet ground the narrow wheels cut right down and let the plow in to the axles. But perhaps the greatest objection is that it leaves so much stubble on top of the ground and will not cut the rosebushes and wolf-willow in the bottom of the furrow. On the land side of the disk, where it is cutting downwards, it cleans these roots out; but on the furrow side, where it is travelling upwards and there is less pressure against it, it simply pushes them to one side and leaves them standing up in the bottom of the furrow. The turning of the furrow depends altogether upon the scrapers, which must be adjusted to a nicety, and the farmer who keeps hired men, who are not always competent to look after their machines, will find it costing him more to replace the scrapers when they wear out than would pay for sharpening the shares of a gang. No doubt, the disk has its place among farm implements, but that place is in gumbo soils where a moldboard plow will not clean.

H. V. CLENDENNING.

Woodworth Municipality, Man.

[Note.—The subject of plowing and soil-turning implements is one of the most important which the Western grain-grower has to consider. It is the foundation process in cultivation. Conditions vary with localities and ideas change as to methods and machinery. Experience is, after all, the final arbiter upon new claimants for popular favor. One swallow never makes a summer. The subject is one that will bear further discussion. Fresh light is always welcome. We will be pleased to hear briefly from others as to the results of their experience with disk plows, being particular to mention the conditions under which they were used.—Editor.]

The excessive growth of grass on the prairies will make food for heavy prairie fires this fall, if conditions are otherwise favorable. Now is the time to make fire-guards. Don't leave it until you see the fire coming.

### Brome Grass for Hay and Seed.

The area under Brome in this Province is much larger than in any previous year and the yield promises to be exceptionally good. Generally speaking, it is later than usual and very little of it will be ready to cut before the first week in July. Although Brome may be allowed to mature with a prospect of less injury than any other grass, still there is always a loss in quality if cutting is delayed beyond a certain stage. The head should be fully developed, but the chaff should be a bright purple color. Owing to the large and very succulent character of the crop, it takes much longer to cure than any other grass, and the windrows should be shaken out with a tedder or by hand. Unless this is done, it is often impossible to cure it, and the result is dusty hay. Brome cures very little in the coll, differing from timothy in that respect. When properly cured, no time should be lost in getting the hay into stack.

FOR SEED.

The first crop is generally the most productive of seed, although many old meadows will give fair returns this year. The crop should be cut when the chaff has quite passed the purple stage and is a light brown color. At this stage, when cut in two, the seed should show a distinctly white kernel or "meat." If cut for any length of time before maturity, germination will be poor, and there is always danger of loss from shelling if allowed to become too ripe. When fully ripe, it can be cut with an ordinary grain binder and hauled into small sheaves and stooked the same as grain. Owing to the large quantity of green bottom growth, it requires considerable time to thoroughly cure and should not be stacked until the heart of the seed is quite brittle.

S. A. BEDFORD.

S. M. Brandon Experimental Farm.

**The Royal Counties Show.**

Second only in importance to the Royal Show itself is the Royal Counties Show, held this year at Reading, June 10th to 13th. The great feature of this Show is always the large entries of Hampshire and Southdown sheep. The former breed had an entry of no less than eighty-six pens, and the honor of winning the champion prize for the best entry in this section fell to Mr. James Flower, who, with one of the grandest and best pens of yearling ewes we have seen for years, won this, which is probably the highest honor any breeder can win in this breed this year. His second pen won second place in their class, which was a real good one. This same breeder also won first honors in the old-ram class, with a thoroughly typical and good-fleshed ram, his yearling rams being third and fourth, whilst his ram and ewe lambs were very near the top. Lord Rothschild won in the yearling ram class, but this award was not in accordance with the general opinion. A much more popular award would have been Mr. C. A. Scott-Murray's unnoticed ram. Mr. Carey Coles was first in the ram lamb class, with a grand-backed lamb, whose fine development was much appreciated; and he came in second with yearling rams. Mr. T. F. Buxton's flock, which had not been out before, came as a surprise to many, and the pen of ram lambs that were first in their class and winners of the champion prize of this age were very much

class, and was to the fore in the other classes of the age. A very excellent two-shear ram won first for Mr. J. Colman, whose excellent pen of yearling ewes were omitted from the award list, an error which we are at loss to account for.

The Shropshires, whose breeders made their great display at the Shropshire Show, last week, were here represented by a small entry. Mr. P. A. Muntz won for both rams and ewes, the latter a grand pen of high merit; Mr. W. F. Inge being second in this class, his exhibits having very excellent type and good flesh. Mr. Mander was first, with a capital pen, a notable success for a fresh exhibitor, Mr. R. P. Cooper being second.

The Oxford Downs were very much in evidence, their entry being a large one and of fine merit, Mr. T. F. Hobbs leading in the ram class and being second for ram and ewe lambs. Mr. A. Brassey was first in the two latter classes and second in the former, whilst Mr. R. W. Hobbs was represented in each class by entries which were of notable quality and merit. Mr. G. Adams was also strongly represented in the lamb classes.

Messrs. W. R. Flower, S. Kidner and F. J. Merson divided the honors in the Dorset classes, one out of the latter breeder's pen, which won second honors, being taken by Mr. F. W. Harding, of Wisconsin, who was present taking notes.

The Suffolk breed was also for the first time present at this show, but they had only four pens on exhibition, and though they were of nice quality, we had hoped to see a larger representation,

numbering no fewer than 48, and thoroughly indicative of the high merit and quality of the herds which have sprung up in the south of England during the past eight or ten years.

The Jersey and Guernsey cattle made large entries of the very highest merit, the former breed having no less than 182 entries present and the latter 83.

**The King's Coronation Postponed.**

With joy and expectancy, millions of the subjects of King Edward VII. had assembled to participate in or witness the ceremonials connected with the imposing rite, the most majestic pageant of modern times, which was to seal his sovereignty over one-third of the earth's domain and one-fourth of the world's population. He had reigned but seventeen months, when, on almost the very eve of the coronation, which was to have taken place in the historic Westminster Abbey, on Thursday, June 26th, he is smitten down with disease and undergoes a surgical operation of the gravest character. His ailment, perityphlitis, is practically appendicitis, and would be diagnosed as such in this country. English surgeons, however, diagnose it as distinct from appendicitis, the difference being that appendicitis is an inflammation of the vermiform appendix itself, while perityphlitis is an inflammation of the caecum, the large bowel to which the appendix is attached. The appendix is almost always involved in perityphlitis. Though



KING EDWARD VII.

ALEXANDRA, QUEEN CONSORT.

admired, as were also his ewe lambs that came second and his yearling rams which were third, r. n. and c. The Earl of Carnarvon's flock was also well to the fore. His pen of ewe lambs went clean to the head of their class, a notable pen of finely-developed lambs; whilst the single ram lamb from this flock, fourth in that class, was very much thought of.

Eighty-three pens made up a grand collection of Southdowns, a section that did full credit to the breed in respect to its fine quality of fleece and flesh. Foremost amongst the successful flocks comes that of Mr. C. Adeane, he being first and second in the yearling-ram class, and second and fourth in single ram lambs, the leading yearling ram being the one to which went the champion prize for best exhibit in this section, and also the Society's gold medal as best Southdown ram or ram lamb. Col. McAlmont, C. B. M. P., was also a leading exhibitor, winning first for pen of three ram lambs and the same for ewe lambs, while he was third in the single ram lamb class and also in the yearling ram class; indeed, so good were the ram lambs that they secured the r. n. for all the champion prizes they were available for. Col. A. F. Walters, who has recently come out as a competitor for show-yard prizes, won first for yearling ewes, a pen of excellent conformation, that were a bit loose in the hind. He was also r. n. in the ram and lamb classes. Lord Ellesmere's flock produced the winning lamb in the single ram lamb

Shorthorn cattle made one of the strongest entries we have seen for several years at this show. A large increase in the interest taken in these classes arose from the fact that the Royal herd at Windsor was represented by some excellent animals, the noted bull, Royal Duke, being amongst them. He was first in his class, but in competition for the champion prize, given by H. M. the King, he was put back behind Mr. J. Deane Willis' C. I. V., a bull whose strongest admirers admit was more than lucky to secure the precedence, for at his best C. I. V. is far too puggy in front, with little or no neck, and neither is he so well carried out on the loin and rump as the old bull. Mr. Willis was first for cows, with White Heather; Mr. Dudding for three-year-old heifers, with a grand one, Hawthorne Blossom 10th, with whom he won several awards last season. H. M. the King won in the two-year-old heifers, with Ruby, a grand typical Shorthorn; Mr. Willis being first in heifers calved in 1901, with Malmaison; the King's entry, Rosanna, two months older, being a close second.

Herefords were in good numbers, and here again the Royal herd from the Flemish Farm added to the merit of those competing. H. M. the King being first for old bulls, with Earlsfield, and second for heifers calved in 1901. The other leading winners were the Earl of Coventry, Messrs. A. E. Hughes and W. T. Barnely.

One of the features of the cattle section was the notable entry of Aberdeen-Angus cattle,

for some time indisposed, on Saturday, June 21st, his condition was considered so satisfactory that it was hoped, with care, he would be able to go through the ceremony, but on Monday evening a recrudescence (or recurrence of the disease after partial recovery) became apparent and a surgical operation was necessary on Tuesday. Through that he passed successfully, though, when his age and general condition are taken into consideration, the ultimate outcome was regarded with the gravest apprehension. The King is in his 61st year. The official medical announcement was signed Lister, Thomas Smith, Laking, Thomas Barlow, and Treves. Lister is Sir Joseph Lister, sergeant surgeon-in-ordinary to King Edward, famous for the discovery of antiseptic treatment in surgery. Thomas Smith is Sir Thomas Smith, sergeant surgeon to the King and late vice-president of the Royal College of Surgeons. Laking is Sir Francis Henry Laking, physician-in-ordinary and surgeon-apothecary to the King. Thomas Barlow is Sir Thomas Barlow, physician to His Majesty's household and professor of clinical medicine and physician to the University College hospital, Treves, who made the incision in Sir Frederick Treves, sergeant surgeon to the King, and was surgeon-extraordinary to the late Queen Victoria. Queen Alexandra has borne the strain of the week's tragic and distressing events with a spirit of fortitude heroic in its character. Official announcements were issued indicating postponing the coronation and all its accompanying functions.

### The Traffic in Spurious Butter.

Events are making fast for fresh legislation in regard to the sale of butter. When the English Law Courts decided a few weeks ago that the purveyors of a butter "blend," which has been acquiring great notoriety in trading circles on the other side of the Channel during the past few years, could sell such stuff as butter without transgressing the law, so long as they "disclosed" the proportion of moisture which it contained, it at once became evident that nothing short of a special legal enactment would save the butter industry of the Kingdom from the ruin which an unrestricted traffic in such a compound would entail. So far, nothing definite in this matter seems to have been decided on by those in authority, but that events are tending in that direction a statement made by the President of the English Board of Agriculture, in reply to a deputation that waited on him during the week, conclusively shows.

The deputation in question was organized by an association of home and foreign butter traders, and its influential and representativeness may be gathered from the fact that it included the Agent-General for New Zealand, the Agent-General for Tasmania, the Acting Agent-General for Victoria and the Acting Agent-General for South Australia, together with members of a number of Chambers of Commerce and trading associations in various parts of the Kingdom. Ireland, in common with the other countries specially interested, joined in the deputation, and was represented by Mr. Warner, of the Cork Butter Exporters' Association; Mr. Stokes, of the Limerick Chamber of Commerce, and Mr. Wickham, of the Irish Co-operative Agency Society. The object of the deputation was to urge upon the Board of Agriculture the necessity for the introduction of legislation to prohibit the manufacture and sale of milk-blended butter, and Mr. Lloyd, M.P., by whom it was formally introduced, put the case on its behalf very pertinently when he said its purpose was to ask the Board to have the law so amended as to put "a stop to the unfair competition in the sale of butter which was at present going on to the prejudice of the public and the injury of the farmer."

The manner in which both the public and the honest buttermaker are being affected by the traffic in this "blend" has already been dealt with on more than one occasion in these columns. In purchasing the compound in question, the consumer buys not genuine butter, but an article containing 24 to 26 or even 30 per cent. of water instead of 12 to 15 per cent., so that in every pound that he buys he pays for from two to three ounces of artificially added moisture. Genuine butter, made in the ordinary way, contains a little over two ounces of natural moisture per pound, but in the blend in question this proportion is increased to just double, so that in buying it the purchaser has to pay at butter rate for what is nothing better than ordinary water. How can farmers who make genuine butter hope to compete with an article such as this—an article whose weight is deliberately increased to the extent of from 12 to 15 or 18 per cent. by the incorporation of added moisture? If the sale of mixtures of this kind, in the guise of genuine butter, were to be allowed, there would be no chance whatever for our dairy farmers.

It is satisfactory to know, however, that there is but little likelihood of the existing condition of affairs being allowed to continue. In reply to the deputation that waited upon him on Tuesday, Mr. Hanbury was—for an official—encouragingly explicit on this point. "Our farmers," he said, "should be encouraged to produce the best article; it was only in that way they could make ends meet. It was said that this milk-blending was perfectly fair competition. He did not think so. He could remember the time when adulteration was considered a legitimate kind of competition, but that had been altogether changed. Complaint had been made that the Board of Agriculture had not dealt with the general law as to notice. He had been advised by the legal officers that they had no power to do more than they had done—and that was to fix a standard of moisture in the butter. They desired not only to protect the consumer, but also the honest tradesman, who was entitled to his trade description. As to legislation, they had already the precedent of the Margarine Act, and if legislation had been required in that matter it was equally required to limit the amount of moisture in butter. He asked them to leave the matter in his hands. He not only agreed with them that legislation was required, but he would go further and say he agreed with some of the speakers, that they required speedy legislation. They desired to keep up the standard of agricultural products, and they wanted to protect the public by making it certain that the buyer of butter should be quite sure of getting what he asked for."

There is a decidedly healthy flavor in this official pronouncement; it is worthy in every way of the vigorous outspokenness which has characterized most of the speeches delivered for some time past by Mr. Hanbury. There is need, very

pressing need, for the fresh legislation which he indicates, and judging by the manner in which he has expressed himself, we think it may be safely left to the President of the English Board to introduce a measure which will be both immediate and drastic in its effect so far as the sale of butter compounds of the type referred to are concerned.

### Range Conditions.

While for ideal range conditions there has been an excessive amount of rainfall this spring, the accompanying cool weather which has prevailed has kept down mosquitoes and flies, and the stock have, on the whole, put on flesh more rapidly than would otherwise have been expected, considering the soft condition of the grass.

Messrs. Gordon, Ironside & Fares made their first shipment for export about the first of the month, the cattle having been carefully selected from their own ranches.

The following is from the last issue of the Medicine Hat News:

"General conditions in the range country were never better than at the present time. Almost everything which could conduce to successful ranching is in evidence. The wet month of May, followed by copious rains in June, have made the prairie one mass of glorious feed. This condition following the similar season of last year, is producing a stand of grass such as we have never before had. The results of last year's natural seeding are also apparent. On many sections of the range the cattle came through the winter in only fair condition, and suffered during the cold, chilly winds of April. While the winter was an open one, it was probably not so favorable to stock as a winter when we have more snow and less variable weather. At the present time cattle are putting on flesh with wonderful rapidity, and are showing the effects of the luxurious and nutritious feed. Prospects were never better for hay, and with plenty of hay there is also being raised on many ranches crops of Bromo grass and grains, the ranchers taking advantage of the "wet seasons" to supplement the natural hay crop by a cultivated one. The fear of damage by prairie fires is somewhat minimized this year by the joint action of the Northwest Government and the railway company in plowing fire-guards at the proper season of the year. Cattle prices this year are tiptop prices, and the beef production has been pretty well bought up for later shipment. The storm losses reported from different parts of Alberta recently did not affect this part of the range. While we had losses following close in the wake of winter, when the cattle were in the poorest condition, we have had favorable conditions since the end of April. A good calf crop is reported. The horse business never was better. The shipments of horses from Medicine Hat this year to date are over double last year's total shipment. Good prospects and plenty of work in Manitoba and the eastern territories makes a good market for our horses. The district is receiving its share of new settlers, and ranches are springing up in all directions. The extremely inviting appearance of the country, after the abundance of rain, no doubt inspires the prospective settler with the idea 'twas ever thus.' The country is certainly beautiful now. New settlers will profit by the experience of the 'old timers' who know the climatic vagaries of this district, and will this year put up a plentiful supply of fodder in the season in which Nature has been so lavish in providing it. Perhaps it might all be needed; at any rate, it keeps and is a good thing to have."

### Feed the Soil.

Liebig, a noted German chemist, is the author of the following four axioms regarding the law of plant food. Farmers who expect their fields to keep on producing heavy crops from year to year without giving the land anything in return, would do well to give these laws some thought.

1. A soil can be termed fertile only when it contains all the materials requisite for the nutrition of plants, in the required quantity and in the proper form.

2. With every crop a portion of these ingredients is removed. A part of this portion is again added from the inexhaustible store of the atmosphere; another part, however, is lost forever if not replaced by man.

3. The fertility of the soil remains unchanged, if all the ingredients of the crop are given back to the land. Such a restitution is effected by manure.

4. The manure (ordinarily) produced in the course of husbandry is not sufficient to maintain permanently the fertility of a farm; it lacks the constituents which are annually exported in the shape of grain, hay, milk and live stock.

The summer fair season is about on. If you are patriotic to your own locality help your local fair by taking some part in making it a success. Don't stand on the side and simply find fault.

### The Suffolk Punch.

Of our three great breeds of heavy-weight horses, the Suffolk is the "handiest" and the most active, whether at plow or on the road, while his pluck at a dead pull is extraordinary. As a heavy vanner, where speed is required as well as endurance and strength, the Suffolk specially shines. Then he is very thrifty; a poor Suffolk is almost as rare as a dead donkey, as his great girth and lung room lay the foundation for a hardy constitution. His legs are like steel, and it is not necessary for him to have the thick, coarse bone of the heavier breeds, which carry with them the natural tendency to ossify the tendons and produce ringbone and sidebone. Without hairs to hold moisture and so to lower the temperature while drying, he does not suffer from grease as do the hairy-heeled breeds. The absence of hair gives the legs an unduly light appearance to those who are accustomed to feathered legs, but whatever the use of hair as an indication of quality in the breeds which affect it, this, of course, adds no strength to the legs. The Suffolk is very hard of foot, being the indigenous product of the dry, hard soils of East Anglia, and the foot fits the leg. An unduly large foot in any horse is a misfit. The foot should be large enough to carry the weight imposed, and to guard against contracted heels and the like; but in excess of this, size is not an advantage. The quality and shape of a foot are not of more importance than its actual measurement. Superfluous weight in the leg and lower portion of the foot is wasteful of strength. Anyone can ascertain why a heavy foot and lower portion of the leg tires a horse or makes it move slowly by making the following experiments: Take the end of a stick a yard long in one hand and rest the other end on the ground; then raise it with the wrist. Do the same with a pound weight attached to the bottom; then add successively other pound weights until you cannot raise it a foot high. Most people will not be troubled to put on many pounds. The reason why a long-legged horse tires sooner than a short one is that the foot is farther from the shoulder, and the weight of the foot has to be lifted through a greater distance. A big foot requires a big shoe. A big foot requires a wide furrow, and it pounds down a big piece of ground and makes a big footmark to hold water when harrowing corn; and it kicks up mangels when horse-hoeing. The punchy form of the Suffolk, with its short legs, conduces to its durability, and the well-proportioned feet tend to its freedom of action.—W. J. M. in the Farmer's Gazette.

### Brandon Experimental Farm Notes.

On the 1st of the month a cloudburst visited the farm, 4-5 inches of rain falling in 10 minutes. This large volume of water rushing down the valley swept both soil and crop before it in many places, and in spite of three weeks' work with scrapers and plows, the farm is still badly scamed, and will not completely recover its usual appearance again this year.

At present writing the Assiniboine River is higher than it has been for twenty years, and has overflowed its banks and flooded about 200 acres of the farm. Fortunately, the bulk of the crop is on the higher portions of the farm and has so far escaped injury from this cause. Wheat is fairly rank, but the color is not as good as usual, the excessive rain, no doubt, accounting for its yellow appearance. Grass of all kinds promises to be a heavy crop, and it is to be hoped that favorable weather will set in by haying time.

On the 21st of June about 150 excursionists from points along the Glenboro Branch visited the farm. This was only about one-half of the party, the balance being unable to reach the farm owing to the washouts on the road from the city. The date of the excursion was much too early, none of the wheat was in head and some of the later crops were just out of the ground. July 10th to 20th is about the best time to see the farm. Crops are then far enough advanced to enable the different varieties to be intelligently compared.

Bees are doing rather better than usual this year. The absence of frost has given us almost constant bloom since the spring opened. Three colonies have already swarmed, and the rest are well filled with willing workers.

The present season is unusually favorable for blossom, both on the flowering shrub and fruit trees. The early lilacs and Tartarian honeysuckles were a blaze of color for some time, and now the later varieties of these shrubs are at their best, and several varieties of Spiraeas are also very handsome, Van Houttei perhaps being the best.

The Hybrid crab trees have wintered well and are loaded with tiny apples, which recall pleasant memories of Ontario. The native and other Western plums are also loaded with fruit. The Plum Pock disease, however, has appeared as usual here, no doubt, quite as much fruit remains as will ripen properly.

**Our Scottish Letter.**

Students are now loose for a season, and the members who wanted to write M. R. C. V. S. after their names know whether they have succeeded or not. The condition of veterinary education in Scotland is peculiar. England has one veterinary college, Scotland has three. There is no reason in the nature of things why such should be the case, and certainly the superfluity of colleges is not due to the superfluity of students. This remark always applied, but it has acquired redoubled force during the past two years. Previous to that time a large proportion of the students attending the Scots colleges came from Ireland, but the new movement in Irish agricultural education included a veterinary college, which has been started in Dublin under the control of Professor Metlam, who was transferred from the Royal (Dick) College in Edinburgh. This college has, of course, diverted the stream of Irish youths, and the Glasgow and Edinburgh Colleges are to that extent the poorer. The oldest college in Scotland is the Royal (Dick), founded in Edinburgh three-quarters of a century ago by the famous Professor Dick. It is the only one of the three blessed with an endowment, but even with this and more than a third of all the students attending the Scots colleges, it is not self-supporting. The New Veterinary College in Edinburgh was founded by the late Principal Williams, between whom and the trustees of the Dick College there was some feud. The fame of the teacher attracted many of the best students to its classrooms, but now that he is gone it can hardly be expected to maintain itself. Even in Principal Williams' day the College was only kept going by the aid of a lucrative private and consulting practice. The same remark applies to all the colleges, and it can easily be seen that it is impossible to keep efficient teachers on such terms. The Glasgow College was started many years ago by Professor McCall, one of the shrewdest and most cautious of practitioners and experimenters, and at the same time as fine a lecturer as ever addressed a bench of students or an audience of farmers. The popular Professor is getting up in years and naturally desires to get rid of his burden. The partial endowment of the Irish College with public money has naturally led to a demand for similar treatment to the Scots colleges. But the Government has a very effective reply. It cannot give grants of public money to private ventures. The consequence is that there are now before the country various schemes for bringing the colleges under public control, but it may safely be concluded that the first step towards the desired goal must be a union of all the Scots colleges. This would give Scotland a splendid position in the veterinary world, as it is admitted she is easily first in respect of clinical work and meat inspection. In all that concerns the protection of public health, Scotland is far ahead of England or Ireland.

In these days of Cruickshank ascendancy, it takes a brave man to stand by Booth Shorthorns and maintain, not their superiority, but their utility. Such a man is Lord Polwarth, the famous breeder of Border Leicester sheep. His Lordship has been breeding Shorthorns for many years and has done fully more than his share of prizewinning in the national show-yards. He began with Uppermill blood, but soon drifted into the Warlaby division, and perhaps there is not now in Great Britain a more out-and-out supporter of the Booth cult than he. Lord Polwarth is not a bigot. He does not stand by Warlaby because it is Booth, but he stands by Booth cattle because in his judgment it is absolutely necessary to maintain size and length with fleshiness and good handling in Shorthorn cattle. He purposes showing visitors to the Royal at Carlisle a selection from his herd, numbering nearly 50 head, which he will offer at unreserved public sale, in a field adjoining the show-ground. This sale will be conducted by Mr. John Thornton on the Wednesday of the show, and, having this week seen the stock, I can promise visitors something of a different kind from the "little red Cruickshank bulls," about which your Mr. Gibson was some years ago slightly sarcastic. Lord Polwarth does not claim that his cattle are better than the north country Shorthorns, but he does argue, and with considerable force of reasoning, that the breed requires all kinds, and that the peculiar properties of the Booth tribes are worthy of preservation. The seventeen bulls to be offered by him on July 9th are great, lengthy, fleshy animals, full of "character," and like crossing well with the best kind of cows in the other families of Shorthorns. I sincerely hope Canadian buyers will look at Lord Polwarth's cattle. They are worth looking at and investing in, and although at present rather out of the running so far as fashion is concerned, it is just possible that by the end of fashion may not be everything.

We are at present in the midst of the show season. Hardly a day passes when we have not more than two or three to look after, and their

recurrence becomes monotonous. As an illustration of the interest taken in these events, look at this list for the week closing: Tuesday—Strathcudrick, at Drymen, a lovely district in Stirlingshire; and Royal Counties, at Reading, a big affair under the immediate patronage of royalty. Wednesday—Edinburgh, a great horse show, at which we have perhaps the best show of light horses of all kinds in Scotland. Thursday—Two smaller, but very interesting events at Strathaven in Clydesdale, and Dunoon in Argyshire. Friday—A splendid general show at Stirling, at which almost all classes of stock were represented; a first-rate West of Scotland exhibition at East Kilbride, with a genuine old-world flavor about it; and, finally, a great Horse Show at Richmond, Surrey, perhaps the best light-horse show in Great Britain. Saturday—Shows at Windygates in Fife, Snettleston in Lanarkshire, and Canspie in Stirlingshire. Next week the events are equally numerous. It is a fair question, Does all this expenditure in money, time and labor repay those who devote attention to the exhibition of stock and implements? Some may be disposed to answer on general grounds and say, "You may depend on that, or the Scot, who looks at both sides of a sixpence before parting with it, would not spend the time, money and labor on the shows." A more conclusive answer is found in the unquestioned supremacy of British stock for breeding purposes. Unless these shows have contributed to bring about that supremacy, it is hard to say how it has been brought about. Edinburgh Show was noted for its light horses. In all departments a high-class lot were presented. The Clydesdale championships went, as they have so often done in the past few years, to the produce of Baron's Pride 9122. For the female championship his daughters



**GLADSTONE'S CHOICE - 40280**

First-prize yearling and sweepstake Albert-bred bull at Calgary Spring Fair, 1902.  
BRED BY MEAD BROS., PINCHER CREEK, ALBERTA.

had the battle to themselves, and victory went to Mr. Alex. Guild's four-year-old black mare, Topsy Pride, a first-class sort, with plenty of weight, substance and quality. The male championship went to Messrs. A. & W. Montgomery's black yearling colt, Baron Stirling, an animal with the right kind of feet and legs. Amongst the Hackneys some fine home-bred stock was exhibited by Mr. Henry Liddell-Grainger, Ayton, and Mr. Wm. Scott, Thornhome, Carlisle. Hunters were a good lot and did well for their owners.

In the first week of June there was quite a plethora of shows. One of the most interesting was held at Paisley, where the Renfrewshire Agricultural Society celebrated its centenary. Mr. W. S. Park, Hatton, Bishopton; Mr. William Taylor, Parkmains, Renfrew; Mr. David Riddell, Blackhall, Paisley, and Mr. John MacKay, Barrhead, showed first-rate Clydesdale stock, the first-named taking the male championship with a beautiful colt named Royal Chattan, and the last-named the female championship with a fine mare named Miss Taylor, got by Sir Everard. An interesting feature in the day's proceedings was a speech delivered at the luncheon by your countryman, Colonel Denison. The Colonel is great on the federation of Great Britain and her colonies for trade purposes. "And so say we all of us."  
"SCOTLAND YET."

**Compulsory Sheep Dipping.**

The County Council of Kent, England, at its last meeting passed an almost unanimous resolution in favor of making sheep dipping compulsory. The sheep industry in the Old Country has lately been greatly endangered by the spread of that infectious disease—sheep scab. Hence the necessity for stringent measures to control it.

**Free-martins Breeding.**

It is often held that when a cow gives birth to twins, either one or both are so deficient in vital power as to be of little value for breeding purposes, or even for the dairy. A case recently was brought into prominence in the western district which controverts this suggestion. Mr. J. W. Anderson, of Tower Hill Park, owns a thoroughbred Ayrshire cow, Rosette, bred by Mr. George Rolfe. On April 16th, 1898, she gave birth to twins (male and female). The female had her first calf in August, 1900, and the bull was placed at one of Mr. Anderson's dairy farms, to serve a herd this season, and twelve of the cows had twins. There is no history of special fecundity in Rosette's family, and it will be very interesting to watch the career of those twin calves in future.—Journal, Department of Agriculture, Victoria, Australia.

**Produce of One Cow.**

An interesting illustration of the progress and profit a farmer of moderate means may make in a comparatively few years from the purchase of a pure-bred cow in building up a valuable herd which will pay its way and leave its owner richer than it found him, is seen in the report, in June 20th issue, of the dispersion sale of the Shorthorn herd of Mr. Walter Lynch, of Westbourne, Manitoba. Mr. Lynch started thirty years ago with one pure-bred cow of miscellaneous lineage, having a good sound pedigree, but of no fashionable family, and by the use of bulls of good type, for which no fancy prices were paid, he finds himself on retiring from farming, after having sold many thousands of dollars' worth of cattle in the meantime descended from that cow,

the owner of a herd of 60 head, which sells at auction for the handsome total of \$10,515, every animal in the disposal (except the stock bull, which brought \$370) having been bred by himself and descended from his original purchase of a modest little cow. It would be interesting to know just what the grand total of sales from the progeny and descendants of that one cow has amounted to, but no one, we venture to say, will doubt that she has proved a profitable investment.

We have heard the question recently asked, "What number of females may one reasonably hope to raise in ten years from one cow and her progeny?"

Figuring it out on the basis of the cow and all her female descendants producing their first calves at two years old, and breeding regularly a calf each year, and allowing for the average proportion of bull calves, it will be found practicable, all the females being retained, to have a herd of about 70 head at the end of the ten-year term without making any allowance for the possible contingency of the birth of twins or triplets. This computation should surely afford encouragement to an increasing number of farmers embarking in the breeding of pure-bred stock, since good, useful registered animals can yet be bought at prices which need not deter an average farmer from venturing into this field of pure-bred stock-raising, if he has a fancy for it.

**Why Herefords are so Popular in the States.**

For years the Hereford has enjoyed quite a remarkable degree of popularity in America, where its special qualities as a grazer's beast have won for it a great reputation, more especially in the Western States where the great grazing ranches abound. In the course of an article explaining "Why we like the Hereford," a well-known American stock-breeder recently gave as the reason for their partiality for the breed the special adaptability of the Whitefaces for putting on flesh on the grass, and their equally well-known capacity for coming to "maturity" at a very early age. "We like Herefords," said the authority in question, "for their great grazing and feeding qualities and for their uniformity in appearance. Shorthorns, Aberdeen Angus and other breeds will always have their advocates, but we find that no other breed can be got ready for the market at so little expense and at as early an age as the Hereford."—Farmer's Gazette.

### Lambing on the Range.

BY J. MCCAIG.

Lambing on the range presents considerable contrast to lambing in the pens of the eastern flock-master. In one case a man has a couple of dozen, in the other a couple of thousand, to attend to. In one case the January or March blasts may be blowing outside; in the other, unless in exceptional cases, the early May breezes are playing and the young grass springing. In one case it is the problem of moving, regulating and manipulating the bunch; in the other, it is a case of caring for the individual with too much or too little milk or, perhaps, with cold mouth and uncertain or useless legs. Though range operations, as respects the individual sheep, are simple and primitive, as respects the bunch there is just as much art as there is in the successful pursuit of any other business.

Bishop Harker, of the Mormon settlement of Magrath, Alberta, financially speaking, was a beginner six years ago. He earned his first sheep by looking after another fellow's on shares. The first year gave him two hundred and fifty lambs and a hundred and fifty dollars clear. Sheep and industry are a good combination to bring independence, but free grass and a genial climate make a good second. The combination moved on until to-day. It will probably continue to move. At present it means four thousand sheep, at lambing time worth five dollars a head, a good substantial interest in the horse and cattle round-ups, a well-tilled irrigated farm and a comfortable home. So much for the sheep, the climate, the grass, and the man, but principally for the sheep and the man.

Sheep are gregarious and so are men. But ranchmen are not so very gregarious either. Neighbors are an advantage the farther they are away. In spring, with the flock lambing, a man doesn't move them far, and it is an advantage to have a good sod to make travelling unnecessary.

Eight miles across the prairie from Magrath brought us to the bench overlooking the St. Mary's River, and right out in the sun we came upon a little knot of day-old fellows guarded by solicitous mothers. Active and quick to move they were, too, with good muscular tone, as becomes the offspring of busy, rustling range mothers. Twins were not the rule by any means, but there were a few pairs. Range lambs are straight and even, as a rule, though generally small and light at birth, and do not show the unevenness and irregularity of feature belonging to house-fed, or rather, house-bred lambs.

Beyond, on a longer slope facing the western sun, were the main flock. Passing to them the way was strewn with individuals of new-lambled ewes, stamping beside a reclining infant or licking a silly, spindly-legged youngster working onto his pins. So it continued right up to the main bunch. The lambled and unlambled ewes were thus separated by the former remaining scattered behind, while the latter moved on in a body. The lambs a day old or more that are well able to follow were held or bunched together with their mothers; the newborn are likewise gathered, towards evening, in the most convenient place to where they have been dropped. The lambled ones thus make up at least two bunches.

The shepherd keeps away from the corral. Lambing in the corral is filthy compared to lambing outside, unless the weather is really bad, and even then, perhaps, a storm is the lesser evil. Wet and exposure to cold winds are the worst enemies to the lamb. At night the new-lambled ewes are driven down from the bunch into the shelter of one of the innumerable coulees running to the river bottom, and are there "bedded down" for the night, with a lighted lantern on each side to keep away the coyotes. When the lambled bunch gets larger they must be started out slowly in the morning. They need half an hour to find their lambs before moving at all, or endless confusion and subsequent disowning of lambs will ensue. The dogs have little or no work at lambing time. The sheep do not travel far in a day, and dogging is bad anyway. Few ewes require assistance in lambing, owing to the healthy condition of range ewes from plenty of exercise. A good hint in this for the eastern shepherd. About one in four or five has twins, but this varies with the season. One of a pair of twins may be disowned, but not generally if new grass has come to give the ewes plenty of milk.

Losses so far this year have been few. The ewes were in good shape at lambing time, except in certain districts where water is not too plentiful. Snow has been scarce this winter, scarcely sufficient for the best health of the sheep.

The camp is not the most interesting part of the lambing outfit. It consists of a large open corral, with sometimes a shed adjoining, both little used in good weather. A camp or chad wagon takes the place of a shack. This is the sleeping and feeding place of the shepherd, generally two or three to a bunch at lambing time. The wagon has a box spreading over the

wheels and it is covered with canvas. In one compartment, which is zinc-lined, is a stove; in the other are stored the provisions. Above the storage chamber or on the shelves spreading out over the wheels of the wagon is the bedding of the shepherds. Lanterns or harness and saddles surround the wagon in easy disorder.

The fare of the shepherd consists of fresh mutton, bacon, potatoes, beans, and canned vegetables, fruit or milk. Magazines and newspapers find their way into the sheep camps for the whiling of an hour before sleeping time.

### Rural Education.

To the Editor "Farmer's Advocate":

Sir,—That the "centralization" of our rural schools, now being advocated by so many, would be advantageous, no one who has given the question any intelligent consideration will deny. The bringing together in a central school, with primary and intermediate departments, the children attending the several schools now required to accommodate the children of our most populous townships would simplify classification very much, as each teacher would have only about half the number of classes to instruct, which would be a great economy of time and should result in the more rapid advancement of the pupils. There would also be a saving in the cost of equipment and maintenance. But the greatest advantage would result from the necessary conveyance of the children to and from school, thereby placing all our children on equality as to educational opportunity. Where children are, as are many at present, from two to three and a half miles from school the attendance of these children must be very irregular or else the parents are heavily taxed by the necessity of conveying them back and forth at times. This equalizing of opportunity would make it possible to enforce a compulsory clause in our school law, which is very much required, as any one at all acquainted with the conditions existing throughout the country, particularly in those sections where some of the foreign population are located, will admit.

There are, however, difficulties in the way of accomplishing this very desirable change. Most advocates, so far as I have seen, cite the experience of our American cousins, notably of Ohio and Iowa, as proof of the feasibility and economy of this plan. But the conditions are vastly different. In these States the population is much denser, and the schools were much more numerous. Where, as in the case cited from Ohio, there were seven schools in a township with an area of twenty-five square miles, or where, as I have been informed by residents, in Iowa they have nine schools in a township six miles square, it might be possible by centralization to greatly improve the schools without adding to the financial burdens of the people. Here, with say an average of three schools to a township, it would be quite a different thing. This enhanced cost to the rate-payers will be the great obstacle in the way. I don't say it is insurmountable, but it will have to be shown, as I have no doubt it can be, that the advantages more than counterbalance the additional cost.

Our present schools cost about \$600.00 each per year, and for comparison we may assume that the school districts average twelve sections each or three schools to a township, not forgetting that they, the school districts, are rapidly decreasing in size. We have \$1,800.00 as the cost per township at present. Under the proposed plan two teachers, at least, per township would be required—say \$1,000.00; incidental expenses, say \$150.00; and the cost of conveyance of children, say five teams at \$400.00 per team, or what would be probably a better arrangement, eight teams at \$250.00 each—\$2,000.00; a grand total of \$3,150.00, or an increased cost per township of \$1,350.00, a fraction over \$9.00 per quarter-section. If we assume that there are four districts to a township, as I have no doubt there will be soon if our present system continues, it would reduce this amount to a little over \$5.00 per quarter-section. In this estimate I have not taken cognizance of the initial expense which would be incurred in building new schoolhouses or moving the present ones to new sites. As this amount could be spread over a number of years, and I believe would not in a given time, say twenty years, amount to more than we will be called upon to pay in any case, for this rebuilding and moving is going on all the time.

To those who have to send their children to the cities, at a heavy expense, because they have not the educational advantages at home, and to those far from the school who have to convey their children to it much of the time, such a change would be a lightening of rather than an addition to the burden, but to many who cannot afford to keep their children at school as long as they would like, to say nothing about sending them to city schools, this additional \$5.00 or \$9.00 (or \$10.00 or \$18.00 where a farmer pays taxes on a half-section) will be quite a burden. There are, of course, compensations. Some of us would be

spared many an hour's anxiety for the safety of the little ones during stormy weather. Our boys and girls too, would be as far advanced at 14 years of age, when many of them have to leave school, as they are now if left at school till 17, and many families with four or five children tramping miles to school would save most of the difference in shoe leather; but then many have no children to go to school, while others are convenient thereto, and it will be hard to convince those that any such expensive change is necessary or advisable.

In view of all these circumstances, I fear it will be some time before this change, however desirable, can be brought about unless our Legislature comes to our assistance with a largely-increased grant to education. If the provincial grant could be doubled and then distributed amongst, say one-third the number of schools at present, it would go a long way towards solving the problem. It would also simplify matters if the change, whenever brought about, were made to apply to the whole Province. If it is left optional with the municipalities, then provision must be made for giving any section adopting the system its fair share of the Government grant—such as a distribution on the basis of attendance or results obtained; otherwise the centralized schools will be at a disadvantage. "PRO BONO PUBLICO."

Eastern Manitoba.

### Pedigree in Swine Breeding.

At a meeting of the Swine Breeders of the State of Iowa, recently, Mr. McFadden, Secretary of the American Poland-China Record Association, thus spoke on the importance of pedigree:

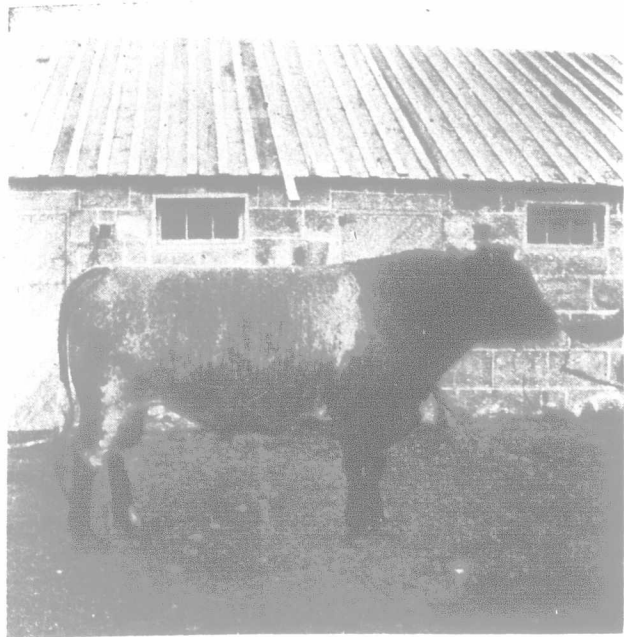
"Only by the diligent use of the knowledge of pedigree have the best results in breeding been obtained, and yet nothing has been attended with such disastrous results as the pedigree craze. It seems quite impossible for the average breeder to know just how far to go with the use of the pedigree. He learns to study pedigree so as to derive the information he wants in regard to what it means, and to note the effect of the blood lines in crossing, and to determine what might reasonably be expected from an animal after the proper study of its ancestors. Having attained some little success along this line, a breeder is almost sure to become intoxicated with the pedigree craze, and then comes the disaster, both in a financial way and in the breeding results. No man ever yet made a success who bred for pedigree alone, and, on the other hand, no man has ever made a permanent success who disregarded pedigree. A pedigree should be valuable for the purpose of showing commingling of blood which produces certain results. A well-posted breeder soon learns that certain families have peculiar characteristics, and he may want just those certain characteristics, or he may wish equally as much to avoid them. It is unfortunate, however, that the study of pedigree frequently leads to the use of an animal simply because it is well bred. In no way is it more possible to perpetuate a certain undesirable quality than by the use of a well-bred, or so-called well-bred scrub. A thorough knowledge of families will enable a breeder to foresee certain results of development in an animal that is of great advantage in determining its value.

"The study of form, or standard of excellence, and that of pedigree, constitutes the theoretical part of swine breeding as a profession. Their importance is becoming recognized more and more, and every opportunity is being taken by the up-to-date breeder to improve himself in knowledge of them. As has been indicated, some attain a large measure of success without formal instruction along these lines, and yet there can be no question but what their success would be greater and more readily attained with such instruction. Ideas and methods have radically changed in the last few years as to the necessity for being posted in them, and it is probable that there will be still greater and still more pronounced reasons for the necessity of such knowledge for the conduct of the breeding in the future."

### An Excellent Report.

From the Department of Agriculture of the N.W. Territories, has recently been issued the annual report in a pamphlet of nearly 200 pages. Apart from the compilation of routine departmental work, the deputy commissioner, Mr. C. W. Peterson, has embodied a great deal of interesting and valuable information. The annual reports of the Territorial Horse and Cattle Breeders' Associations are also included in the bulletin. Every resident of the Territories should secure a copy, which may be had on application to the department at Regina.

In a recent issue of the "Advocate," we called attention to the prospect of a pasture for hogs. Prof. C. G. Smith's pasture hogs not only clean the place, but improve the soil, and it is a condition that wards off disease.



BISMARCK =28313=.

One of the sires at the head of the Thorndale herd of Mr. John S. Robson, Manitou, Man. (See Gossip, page 517.)

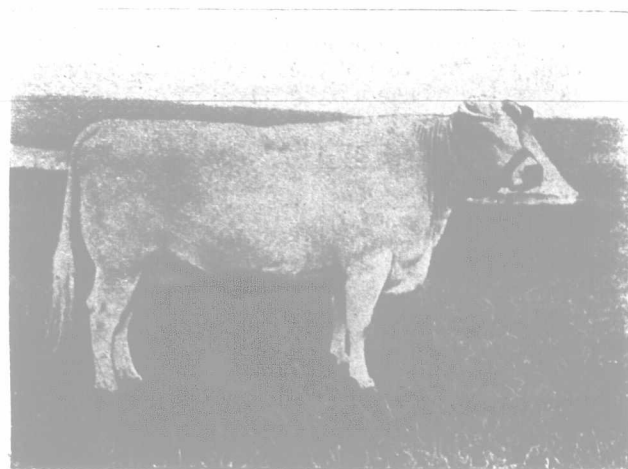
**Farming Without Live Stock Becomes a Drudgery.**

A REMINISCENCE AND REVIEW OF PRESENT-DAY CONDITIONS. To the Editor "Farmer's Advocate":

Sir,—It is now just thirty years since I landed in Fort Garry, and I have had the pleasure of seeing Manitoba grow from babyhood to the strong, healthy young woman of to-day; of seeing the growth of her industries from two small breweries and a few scattered grist-mills (mostly wind power) to the magnificent steam mills and factories of the present; and from the water-works controlled by old Irvine in those days to the present water service of Winnipeg, by no means the least of the changes. Irvine's water-works (of which I have a photograph) consisted of an ox and cart of the old Red River type, with two barrels set in a frame. He made heaps of wealth supplying the by no means appetizing waters of the Red to the citizens until a rival sprang up in a man named Chick, who was also a dairyman. Evil-disposed persons say that he occasionally used to get puzzled and deliver his supplies from the wrong source. If he did, it was almost excusable, as the water was much richer in solids than average milk. In fact, the hotelmen liked it better than the present supply, as it was rich in vegetable matter and made stronger soup. In those days the farms were composed of long, narrow strips, two miles in length, lying along the rivers. Each farm carried with it a common right to the hay and pasture on a further two miles backward from the river. High farming was not in fashion; in fact, anyone seen manuring his land was looked upon as little better than a lunatic, and the only use ever made of manure was to flavor the drinking water of the settlers by dumping it over the river banks. Most of the land had been cultivated for very many years, but still grew fair crops, and, with the exception of Kildonan and St. Paul's, where thistles and stinkweed were very much in evidence, there was but little land much overrun by weeds. Pasture and hay land was everywhere. The market for produce of all kinds was extremely limited, and there was very little inducement to do more than play at farming.

I had gained my knowledge of farming in the north riding of Yorkshire, and, of course, thought at first I was just the man (or boy) who was wanted to wake up the natives to a sense of their own deficiencies, and had many an argument with old settlers on matters agricultural. Looking back now, I can see that many of my old friends were by no means as badly posted as I thought, and many who are living now have marched with the times and could take their places among advanced agriculturists and horticulturists. But, though the question of soil fertility in those days was one of small moment, and did not enter into the mind of the average farmer, times have undergone a great change. The retention of soil fertility has become one of the burning questions of agriculture in the Manitoba of to-day. There can be no question that the depletion of humus in all the lands which have been cropped for many years has had the effect of injuring the mechanical texture and rendering the land harder to work and keep clean, without considering the deterioration from a chemical standpoint. One often hears persons speak of the change of seasons being accountable for the change in the condition of the land. This must be heavier nowadays. They say the soil never baked and crusted so of old. Neither did my friends, but we used to have just as many rains all the same. Land blows worse

than it used to, we hear. So it does, but the winds don't. The soil drifts because there is nothing in it to hold it together; that is, the decaying vegetable fibres are non-existent; they are all decayed, and what humus remains is completely disintegrated. For the same reason it runs into a solid mass when overwet and bakes into cakes, after which it dries out and shrinkage occurs, instead of crumbling apart wherever penetrated by vegetable fibres; thus swelling and shrinking as the supply of moisture varies. There is only one practical solution to this difficulty, and it carries with it a solution to a good many of our farm difficulties if only farmers would come to believe it: Stock your farms well with good animals, and do not forget that sheep will do your scavenging. Without lots of stock there is no manure to draw out, nothing to consume the hay and pasturage, and no inducement to seed down to grass. Further still, without stock, farm work becomes a weary drudgery. In summer, one monotonous round of plowing and harrowing, and for those within reach of an elevator, a time of enervating and demoralizing idleness in winter. The winter work of caring for stock is a bugbear to many people, as is the extra work entailed in caring for the milk in summer. Well, let me say here that it should not be extra work. Farmers have got into a groove of working which makes perfect slaves of them. They have come to look at the care of stock, cutting wood for the house, and all such jobs as "chores." They define chores as unprofitable work, to be done of necessity out of regular working hours, whereas they should be part of the legitimate and necessary work of a well-conducted farm, and should be allowed, as far as possible, to be done in the regular work hours of the day. When so done, they soon supply their proportion of the farmer's income. All farm profits are cut so close now that any little carelessness will transfer the balance to the wrong side, and work done out of hours is seldom well done. Where calves are improperly cared for because of the pressure of work, they may not be worth within \$5 per head by the following spring as others that received just treatment. Again, colts can be profitably raised on mixed farms where feed is plentiful, but are generally spoiled



WHITE HEATHER.

First-prize three-year-old Shorthorn cow and champion female of the breed at the Royal Show, England, 1901; first-prize cow at the Royal Counties Show, 1902.

THE PROPERTY OF MR. J. DEANE WILLIS, BAPTON MANOR, WILTSHIRE.

if the attempt is made to raise them on farms that are purely arable. Since extra teams are wanted for summer-fallowing, the brood mares have to go to work. When such is the case, it is usually better to let the colts go along. This is no great mistake, either from a moral or financial viewpoint. Moral: Because nothing will make children take to a healthy country life like cultivating their natural love for young animals. They very soon get to recognize the need of care, cleanliness, and regularity in feeding, and they take a delight in gaining the confidence of the young creatures and noting their growth and improvement. Once they take a fancy to such, there is never any question of their loafing round town with nothing to amuse them, when they ought to get back and look after their pets. I could go on indefinitely with examples of the pleasure to be derived from stock-raising, not only by the children, but also their elders, but must just mention the financial benefits before closing a letter which is already much too long. On all but very successful grain farms there comes a time in the spring when there is no money in sight for the summer's expenses, and just there we begin to realize the financial benefits. It may be a bunch of steers to be sold, a tub or two of butter every week, a few hundred pounds of wool, or, seeding over, it may be we find we have a pair of colts that will do the fall work. One of the old teams can, therefore, be sold. Next, off goes a bunch of fat lambs and a few fat sheep that are getting up in years or have gone wrong in their udders, and this about brings us round to harvest again.

A. C. HAWKINS, Lorne Municipality, Man.

**Farm Zoology.**

BY REV. W. A. BURMAN, WINNIPEG.

This article, which (with the editor's permission) I hope may be followed by others of a like character, is an attempt to throw light upon one branch of study which has so far not been sufficiently considered in our western country. I mean what we may, for want of a simpler name, call "Farm Zoology." We want to invite an intelligent and, I hope, interesting study of the various creatures—animals, birds, reptiles and insects—that are the friends or foes of farmers.

To know these will do much to interest our readers in the round of farm life, and, we hope, will profit them also. If, perchance, I run counter to some traditions, and speak a good word for some poor creatures that are under a general ban, I must crave indulgence for being inclined, not only to mercy, but also to the belief that there are sound reasons for my conclusions, which touch the pockets of the farmers. At any rate, I ask a fair consideration of the reasons and evidence adduced and a judgment as little biased as possible.

Now, for instance, if I should declare myself as quite against the giving of any bounty for the destruction of wolves (coyotes), as I am, I dare say I may at once be considered a heretic—or worse. But, before condemnation, as the old Romans said, "Hear the other side." And, by the way, the said Romans would, many of them, have been with me in this matter, for they claimed that the she-wolf was responsible for suckling and keeping alive Romulus, the castaway child who became founder of their city—Rome.

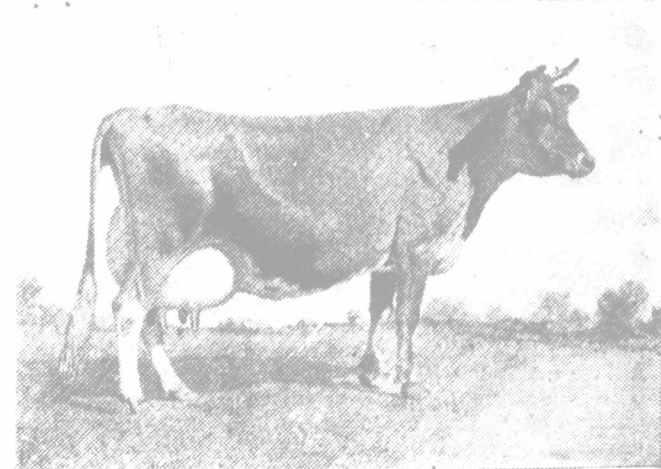
In our study of animated nature, the living creatures which affect the work and life and interest of those engaged in agriculture or on the ranch in this western country, we shall try to be as plain as possible, using names and terms that are easily read and remembered, except when to do otherwise would be useful.

The term zoology means the science which deals with living things.

For our purpose they may be classed as follows:

- I. VERTEBRATA.—Viz., animals with a backbone. These include:
  - 1. Mammals.—Viz., animals which suckle their young. (Popularly we use the term animals for these only.)
  - 2. Birds.—The foregoing two classes have warm blood.
  - 3. Reptiles.—Cold-blooded "creeping things"—as the word reptile means—such as turtles, lizards, snakes.
  - 4. Amphibia.—That is, living both on land and in water; cold-blooded, viz., toads and frogs.
  - 5. Fishes.
- II. ANTHROPODA.—Or, jointed-limbed animals. These include:
  - 1. Insects.—Viz., those having their bodies and limbs in sections. These have the body divided into three parts: The head, which sees, feels, and eats; the thorax, which, furnished with six legs and with or without wings, provides for the power of motion; the abdomen, which contains the organs of digestion and reproduction. These creatures form a large class, which deeply affect the work of agriculture, as we shall see.
  - 2. Myriopoda.—Viz., animals with many feet, such as centipedes.
  - 3. Arachnida.—Spiders, mites, ticks, etc.
  - 4. Constalla.—Crayfish, woodlice, etc.
- III. WORMS.
  - 1. Leeches.—
  - 2. Earthworms.
  - 3. Round parasitic worms.
  - 4. Tapeworms, flukes, etc.
- IV. MOLLUSCS.—Viz., "soft-bodied"
  - 1. Snails and slugs.
  - 2. Mussels of our rivers, etc.

The above include all that need be enumerated in this sketch, and some of these are of little direct importance to agriculture. There are



FIGGIS 76106.

Jersey cow, 11 years old. Sold for \$850 at Hood Farm sale, Lowell, Mass., June, 1902.

others, belonging to the lower orders of living things, which need not here be dealt with.

We shall review the classes as they have been named, in the hope that something of interest appearing in these articles may lead our readers to a truer and wider view of the wonders of creation, and of the part humble creatures play in the economy of nature. There is, as we shall see, nothing without its place. Even with our limited knowledge of the machinery of creation, we may see each living thing serve some useful purpose in our world. It is not proposed to deal with ordinary domestic animals, but only with what we call "wild" creatures.

### Jersey Breeders Meet.

On June 26th, by the kind invitation of Messrs. B. H. Bull & Son, Brampton, Ont., the semi-annual meeting of the Canadian Jersey Cattle Club was held at Hawthorne Lodge, the beautiful home of the Messrs. Bull and of the far-famed Brampton Jersey herd, whose prizewinning record at principal Canadian fairs in the last decade has been unsurpassed, if equalled, by any other. Between forty and fifty representative breeders of Jerseys from many sections of Ontario responded to the invitation to be present, and spent the day pleasantly and profitably in social conference, enjoying the hearty hospitality of Mr. Bull and his interesting family, and in looking over the famous herd of some seventy-five head, revelling in the luxuriant clover and blue-grass pastures, pictures of bovine quality and contentment, among which were noticed many familiar forms and faces which in former and recent years have carried bright ribbons from the show-ring in many a keenly-contested field. A striking characteristic of the herd, it was remarked, is its uniformity of type and the indications and evidences of usefulness in the dairy on the part of the females which have come into work at the pail, while the younger members, mainly the progeny of the imported Monarch, the Golden Lad bull at the head of the herd, himself a champion at Canada's greatest fair, and his dam twice the winner of this distinction at the same, are distinctly noticeable on account of their uniformity of excellence in type and quality. The late importation from the Island of Jersey of four handsome young females and a son of the \$7,500 bull, Flying Fox, selected by that fine judge, Mr. F. S. Peer, were greatly admired, the heifers showing remarkable development of udder, correct placing of teats, fine dairy conformation and rich quality. After partaking of a sumptuous repast provided by Mr. Bull and his family, a meeting, presided over by ex-Mayor R. J. Fleming, of Toronto, President of the Club, was held on the lawn, at which short addresses were delivered by a number of the guests, referring to matters of interest to Jersey breeders, prominent among whom was Mr. Hugh Clark, now living in retirement at Brampton, the pioneer importer of Jerseys to the Province of Ontario, who related reminiscences of the obloquy to which he was subjected by his neighbors when, in 1871, he made his first importation of the nucleus of a herd of the butter breed, the influence of which ultimately compelled respect and admiration, and made Peel County noted as the banner district of the Province in the production of high-class butter and the winning of principal prizes at the Toronto Industrial Exhibition for many years. Congratulations were freely showered upon the Messrs. Bull on the excellence of their herd, on the enterprise manifested by them in maintaining the reputation and character of the breed, and on the evidences of prosperity seen in the bountiful crops of the farm, in the complete outfit of farm buildings, the stables being models of convenience, healthfulness and comfort, light, bright, and well ventilated. Under the favor of a kind Providence and the good management of the owners, the herd of Jerseys has played a prominent part in making a farm once close kin to a wilderness blossom as the rose.

### Butter Test at Bath and West of England Show.

In the competition at the above show, held at Plymouth last month, the Jerseys scored a victory in the one-day butter test. Dr. H. Watney's nine-year-old Jersey cow, Mary Ann Lass, yielding, 131 days after calving, 28 lbs. milk and 2 lbs. 3½ ozs. butter, and winning the first prize for cows of any age, breed or cross, under 900 lbs. live weight. Dr. Watney's six-year-old Jersey cow, Red Maple, won the first award for cows of any breed or cross, 900 lbs. weight, and over, yielding, when 160 days in milk, 27 lbs. 8 ozs. milk and 2 lbs. 3½ ozs. butter in the 21 hours. The six-year-old Guernsey cow, Blossie, purchased by Mr. G. A. Hambro, 37 days after calving, gave 53 lbs. milk and yielded 2 lbs. 10½ ozs. butter. The Lincolnshire cow, Blue Spot, won first prize in the milk and butter test over 900 lbs., giving, at 46 days after calving, 67 lbs. 6 ozs. milk. The Jersey cow, Red Maple, was third in this competition.

### Show Your Stock.

Visitors to the fairs judge of the popularity and comparative usefulness of the breeds of live stock, in all classes, by the number and quality of each on exhibition. A large display of animals of high-class excellence at these events is one of the best advertisements of a breed that can possibly be made, and every breeder is, therefore, interested in a creditable exhibit of his favorites. The idea evidently entertained by many breeders, that unless they can make a large display and figure prominently in the competition for herd and flock prizes it is better not to show at all, is a grave mistake. Such a course leaves the field to a few and often results in a meager representation of a breed, leaving the impression on the public mind that the breed is losing ground or is at least lacking in enthusiastic admirers, and such impression detracts from the demand and affects trade adversely, especially in so far as the smaller breeders are concerned.

A perusal of the catalogues of leading British exhibitors shows that even wealthy and prominent breeders not infrequently enter a single animal, or at most a half dozen, in the class for the breed in which they are interested, and consider it an honor and an advertisement worth all it costs to win even a second or third prize or a commendation. It is certainly more satisfactory and more sensible and creditable to show one really good animal, or a few in the best of condition, than to bring out a large number in a half-prepared state, for then, if one fails to get into the prize list, he may not be ashamed of his exhibit and will learn from the experience in what points of excellence or of preparation he is lacking, and will be in a position to more skillfully prepare and successfully compete the next time he comes out. Indeed, this is the only way in which a man of moderate means can measure the quality of his stock with that of others, for however high an opinion he may have of his own at home, he is liable to be surprised by their shortcomings when seen in first-class company in the show-ring, but if wisely used the experience may prove a profitable education to him.

As a rule, and in most classes of stock, it is a mistake to limit the period of preparation to a few weeks or even to a few months. The best time to begin to prepare for the next year's show season is at the close of the last. Not that it is wise to feed heavily the whole year, but the selection of the animals intended for exhibition should be made early and their preparation be gradual, proper training and exercise being given to keep them improving in every respect, and if they are found to fail of responding satisfactorily to the necessary treatment, others may be substituted before it is too late to give them the benefit of the needed preparation. There are, however, some classes, such as the dairy breeds of cattle, which even at this date may be successfully prepared for the early shows, as in their case a high condition of flesh is not necessary, and would, indeed, handicap them in the competition; but they must be housed during hot days and receive the feeding, sheeting and grooming necessary to give them the gloss and the handling quality of skin and hair which counts for so much in a close comparison. Much also depends upon their training to walk gracefully and to stand properly in order to show to the best possible advantage. These may appear to be trifling points, but in a close competition they may turn the scale and mean all the difference between the first and a lower place in the rating. The showman should study the attitudes of the animal he handles and show it for all it is worth, remembering that in this as in everything in connection with fitting for exhibition, what is worth doing is worth doing well.

Another point which is worthy of being emphasized is that the interest and success of our exhibitions and the prestige of our country as the breeding-ground for high-class stock depends largely on the character of the live stock displayed at the leading shows, and for this reason, if for no other, the men who have the stock should take a broad and patriotic view of the question and be prepared to make some sacrifices, if need be, for the general good, and should see that the products of the country are adequately represented.

### The Argentine Cattle Question.

Speaking at the luncheon in connection with the show of the Suffolk (Eng.) Agricultural Association, recently, Hon. Mr. Hanbury, Chairman of the British Board of Agriculture, said he had, at the present moment, rather a difficult question to decide in regard to the importation of Argentine cattle. He intended to take such precautions in regard to Argentine cattle as were necessary in the interests of the British farmer and consumer. The supply of cattle from America was falling off, and he looked forward to the day when Argentina would be a great source of the world's beef supply. Therefore, every precaution must be taken to prevent disease being introduced either from Great Britain or the Argentine Republic.

### Northern Alberta Wants Better Roads.

An important meeting of delegates representing the principal districts of Northern Alberta recently met in Edmonton to formulate a petition to be presented to the Dominion Government asking for aid for the construction of roads and bridges in that rapidly-settling-up district. The first day the whole matter was discussed in all its phases, speeches being made by several of the M. L. A.'s present, and also by Mr. Frank Oliver, the M. P. for Alberta. The second day of the convention, the following petition was drafted and agreed upon, those present at the meeting being: From Red Deer—Messrs. Moore, Smith, Gaetz, and Greene. From Lacombe—Messrs. Talbot, M. L. A., and Daykin. From Wetaskiwin—Mr. Rosenroll, M. L. A. From Strathcona—Messrs. A. C. Rutherford, M. L. A.; Sheppard, McIntyre, Douglas, and McLaren. From Edmonton—Mayor Short, Messrs. Mercer, Secord, Beck, and F. Oliver, M. P. From Fort Saskatchewan—J. W. Shera, M. L. A.; and from St. Albert—D. Maloney, M. L. A.

#### THE PETITION

of the undersigned Towns, Villages, Boards of Trade, Merchants' Associations, Boards of Agricultural Societies, Local Improvement Districts, Creamery Associations and School Boards, as well as Farmers, Tradesmen, Settlers, and others resident or interested in Central or Northern Alberta:

1. That the district of Alberta lying along the eastern slope of the Rocky Mountains is traversed by many rivers, creeks and ravines, running eastward, to finally discharge their waters into the Saskatchewan River.

2. That settlement in the central and northern portions of the district (between Carstairs and Edmonton) extends from 25 to 75 miles on either side of the Calgary & Edmonton Railway, and beyond Edmonton for from 50 to 100 miles. These settlements require colonization roads aggregating in extent not less than 800 miles.

3. That the surface of the country is diversified by many lakes, ponds and sloughs, and while largely prairie, portions are more or less heavily wooded. The soil is of a deep vegetable mould, and when saturated with rain presents great difficulties to travel.

4. That the rivers and creeks are subject to sudden and extreme rises, and, that travel may be uninterrupted, numerous bridges, both large and small, are absolutely necessary. Added to these are the culverts and corduroys necessary to overcome the smaller waterways and sloughs. The cost of these bridges is a heavy charge upon the resources of the Northwest Government—is, in fact, beyond its present resources.

5. The "checker-board" system of survey obtaining throughout the Territories takes no account of the natural obstructions above mentioned. As the settlers fence in their holdings, traffic is forced into the fixed and often impassable road allowances. To overcome the obstructions there met with, large expenditures are necessary.

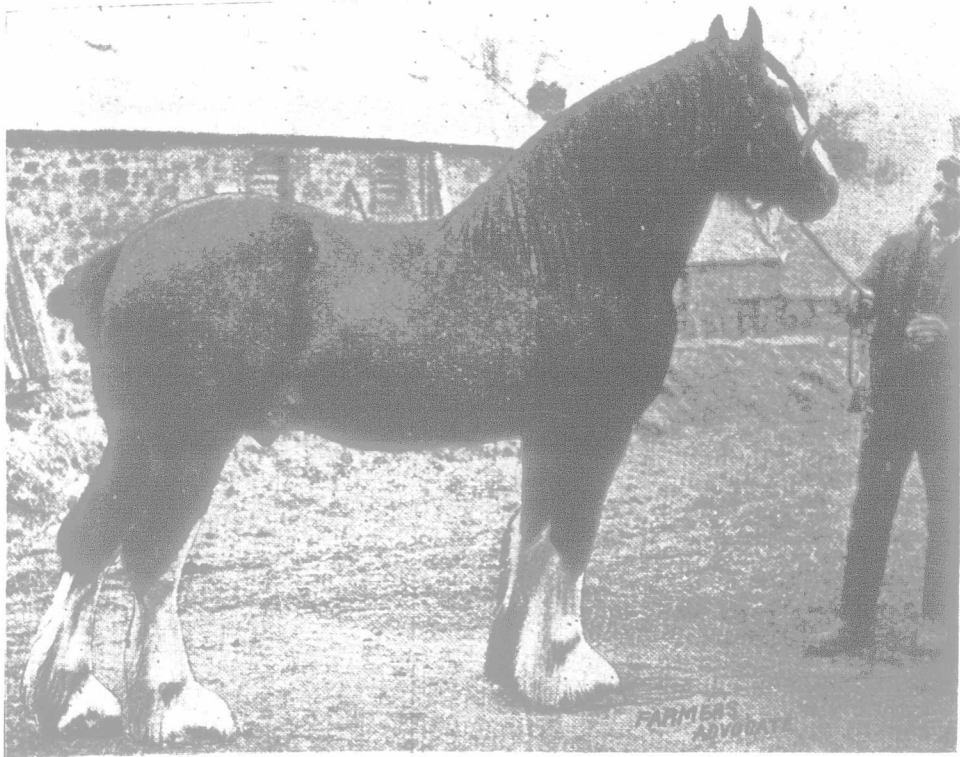
6. That the past three seasons have been very wet, and the present season, so far as it has gone, has been still more so. Many bridges and culverts have been washed away and corduroys destroyed. Dry creeks have become dangerous torrents and road allowances have become blocked by lakes and sloughs, the beds of which had for many years been dry. As a result, travel in many sections of the district is suspended. In the more settled portions of the country it is attended by great danger, difficulty and delay. Business is proportionately demoralized, incoming settlers are discouraged, and many leave the country because of the condition of the roads.

7. That an essential initial step which would be a long stride toward a radical and economical solution of the whole problem consists in a well devised and executed system of drainage, whereby the excessive rainfall would be controlled and directed in proper channels to suitable outlets. Then the construction of numerous bridges, culverts and corduroys to span the rivers, creeks, ravines and sloughs would constitute a public work, the benefit of which would be great and permanent.

8. That the active immigration policy of the Dominion Government—good in itself—has resulted in the pouring into the country of great numbers of new settlers, often but poorly equipped to meet the necessities of pioneer life and the difficulties of transportation. Those of limited means, in order to get free homesteads, are forced to settle at long distances from the centers of trade, which, for the most part, are at or adjacent to the line of railway. The different railway companies hold about one-half the total area of the land, the Hudson's Bay Company holds no small area, the Government reserves considerable for school purposes, and much is allotted to holders of land scrip. These holdings tend to further unwise settlement.

9. That the expropriation from taxation of railway and Government lands, in addition to sparse settlement, does not admit of municipal organization with a view to local taxation. The present





**ROYAL FAVOURITE (10630).**  
Five-year-old Clydesdale stallion.

BRED AND OWNED BY MR. ANDREW DEWAR, ARNPRIOR, SCOTLAND.

resources of the Northwest Government are inadequate for bridging necessities alone; the local improvement districts established under the Territorial Government have been absolutely unable to provide passable roads for strictly local wants, nor is there any other organization charged with or capable of the task of roadmaking.

10. There remains, therefore, no alternative but to lay our necessity before Your Excellency-in-Council, and to ask from the treasury of the Dominion an appropriation sufficient to remove these drawbacks and barriers to settlement and progress. Nor is there any use to which the public moneys of the Dominion can be put which will produce greater proportionate returns than to provide good colonization roads throughout this district. The same roads which will serve the settlers now here would be channels through which the multitudes seeking homes would pour into the interior and spread out their activities and industries over a broad country and add to the wealth, not only of this district, but of the whole Dominion.

Therefore, your petitioners humbly pray that without delay an appropriation be made to construct colonization roads in Central and Northern Alberta, accompanied by suitable drainage, and for this purpose it is estimated that a grant of not less than \$500,000 is required.

**Test Paris Green for Purity.**

From year to year complaints are heard that much of the Paris green kept for sale by local dealers is of low grade, and, consequently, in a high degree ineffective as an insecticide. To what extent this is true it would be difficult to say. All goods branded as pure are required to be such by law. That, however, cannot be always taken as a guarantee of excellence.

The adulteration of Paris green is easily accomplished by the manufacturer. In the pure state it is made from copper acetate and arsenic trioxide; the percentage of each in the mixture varying considerably. According to chemical analyses which have been officially conducted with Paris green by the United States authorities, such adulterants as chalk, flour, gypsum and white arsenic have been found, the latter in much the largest quantities. It is a poisonous white powder, costing about five cents per pound, and when applied to plants in a pure state is quite injurious to foliage.

Any farmer or gardener can easily test the purity of Paris green. Two methods are within easy reach—i. e., the ammonia test and the glass test. With the former, a small amount of the powder is placed in a glass, into which is poured a quantity of ammonia. Since Paris green is soluble in this substance, and its impurities, save white arsenic, are not, a valuable test can be made. Where no adulteration has been used, the liquid will present a clear blue color. The glass test is even more simple and accurate. The course pursued is to place a small quantity of the substance to be examined on a piece of glass; hold in a slanting position and far the lower side, causing the powdery mass to gently move down the incline. If the sample be pure, a bright green streak will be left behind, but if impure, a yellowish streak will be seen. This method will require a little practice before skill can be attained, but it furnishes a useful means of determining the purity of a substance that is so much used as Paris green.

**Official Live Stock Judges at Local Fairs.**

C. W. Peterson, of the Territorial Department of Agriculture, who was the first to introduce the system of supplying local fairs with expert judges of live stock, gives, in the annual report of the Department, recently issued, a summary of the introduction and working of the plan, from which we quote:

It is taken for granted that the agricultural-fair system occupies an important place in the Departmental scheme of agricultural education, and also that the educational value of such fairs can only be measured by the degree of efficiency of those men who are called upon to place the awards, or, in other words, to establish the standards towards which all observant breeders should aim, or expect to derive any benefit from the agricultural-fairs system.

Viewing a local fair from this standpoint, the first essential towards making it a success is clearly the largest possible turn-out of high-class stock, and the second, undoubtedly, the proper judging of the exhibits. Judging at many agricultural fairs, prior to the reorganization of the Department, was conducted in such a manner as to thoroughly defeat the sole object of these exhibitions. Most often local judges were requested to act and frequently failed to turn up, and were then replaced by men sometimes quite incapable of discharging such functions, but who happened to be within easy reach. Complaints from exhibitors were unceasing and loud. Even in cases where the judges were considered absolutely capable of doing their duty intelligently, a suspicion would invariably lurk in the mind of some exhibitor that they were influenced in their decisions by friendship or business relations with his competitors. In some cases the "go-as-you-please" system of live-stock judging had even been carried to the point where the selection of judges was left altogether until the day of the show, in the hope of some likely person being on the ground then. It can be easily understood that such a practice could result in nothing better than a farce.

Immediately upon the formation of the Department, when the public became aware of the fact that these agricultural societies were placed under some sort of control, numerous complaints were lodged of unfair and incompetent judging, and it became evident that a very important work could be done by the Department in dealing with this question in a practical way.

The decision having been arrived at to deal with the question actively, the Department immediately placed itself in communication with local and Manitoba expert live-stock men and arrangements were made to organize a staff of live-stock judges. The first difficulty that confronted the Department was the fact that societies had been in the habit of holding the fairs absolutely without any regard to the dates of neighboring shows, and although every society expressed unconditional approval of the scheme the Government had in view and a desire to co-operate, the first year it was to be tried in practice, namely, 1899, the season was too far advanced to make many changes in the dates that had previously been fixed, and only six societies were, therefore, supplied. The scheme worked out so successfully that nearly every society that intended to hold an exhibition the following year applied to be furnished with official judges, with the result

that in 1900 the Department took charge of the judging at twenty-six shows. During the past year the machinery was further improved, and the Department practically took charge of the judging in the live-stock classes of every one of the thirty-three fairs held.

The Department is at times confronted with considerable difficulty in securing a sufficient number of expert live-stock judges. The qualities which are absolutely essential in a successful judge are by no means frequently found united in one man. It is, above everything, necessary that he should be an experienced man with live stock and possess an eye for good form. It is almost equally important that he should have a reputation in this respect outside of his own immediate locality. His personal character must also be absolutely above reproach, and he should be disinterested to this extent, that he has not bred or sold or handled any of the animals, their ancestors or their progeny, that he will be called upon to judge; and it would be very much better if he has had no business dealings at all with farmers in the locality he is to judge in.

Instructions might well be issued to judges not to award prizes to inferior animals and not to allot any first prize unless the exhibit in question was worthy of that honor.

**Large Creameries Pay Patrons Best in Minnesota.**

In compiling some facts from various Minnesota co-operative creamery reports for 1901, we secure, says the N. Y. Produce Review, a good illustration of the advantage of large creameries.

The net price paid for butter-fat to the milk-producers averaged, in three creameries receiving less than 1½ million pounds of milk, 18.42c. In ten creameries, with between 1½ and 3 million pounds of milk, the price averaged 19.19c., or 0.77c. higher.

In twelve creameries, with between 3 and 5 million pounds of milk, the price averaged 20.54c., or 1.35c. higher.

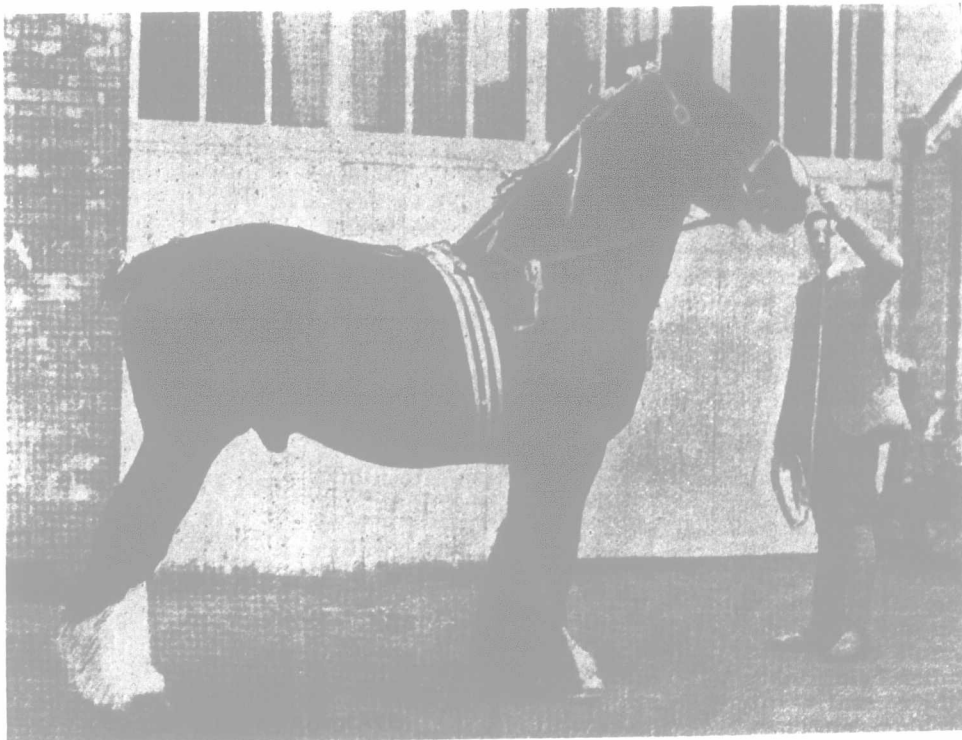
In five creameries, with over 5 million pounds, the price averaged 21.27c., or 0.73c. per pound higher.

The milk-producers patronizing a creamery receiving less than 1½ million pounds per annum received 2.85c. less in net return per pound of butter-fat than did those patronizing creameries receiving over 5 million pounds. It is not worth your while to consider the question of producing more milk as well as better milk?

**Trees and Small Fruits.**

C. E. Rigden, living north of Moose Jaw, has devoted considerable attention to trees and small fruits. He has seven or eight acres planted in trees which are doing well, some of them 26 feet in height. Besides quantities of wild fruits, he reports the following varieties of fruit in bearing this year: Yellow Siberian crab, Morello cherries, sand cherry, two kinds of plums, red, white and black currants, gooseberries, raspberries, and strawberries.

The official report of the Manitoba Department of Agriculture has been issued, and copies may be had on application.



**SHIRE STALLION, BLAISDON CONQUEROR 15989.**

First at the Shire Horse Society's London Show, 1902.

THE PROPERTY OF MR. PETER STUBBS, BLAISDON, NEWNHAM, GLOUCESTERSHIRE.

### Feeding and Watering Horses in Hot Weather.

While it is advisable at all times to exercise care and regularity in feeding horses that are used for either slow or fast work, it is essentially so in very warm weather. The food should be of the best quality and given in limited quantities; the quantity of bulky food should be limited in all cases when the time is limited and the horses are expected to go to work or drive shortly after eating. The stomach of the horse being a comparatively small organ, the majority of animals will, if allowed, eat until it becomes distended, then if he be put to work on a hot day he perspires freely, digestion is partially arrested, and a case of indigestion is often the result. It is good practice to allow a horse to rest an hour or longer after eating in order that digestion may be pretty well advanced before exercise be given, but this is not practicable in the majority of cases, especially on the farm. The only method, therefore, of avoiding danger of sickness, or if not an attack of illness or at least discomfort to the animal for an hour or two, is to limit the quantity of food given. The morning's feed should be from four to six quarts of oats, according to the size of the animal and the nature of the work to be performed, and a small ration of hay. At noon, the same; in the evening it is good practice to give hay first, then the grain ration, and after that more hay. As he will have a long period of idleness now, it is safe to allow him all the bulky food that he will eat, but in no case should he be given more than that. It is not only wasteful, but injurious to the animal to keep food before him all the time. In many cases farm horses are turned out to grass at night, but it is seldom that they will refuse a reasonable ration of grain in the morning, even after coming off good pasture. Where this practice is followed it is wise to allow them to stand an hour in the stable after eating their allowance of grain in the evening. By this time the juices of the stomach have performed their functions and the ingesta is in a fit state to pass into the small intestines where digestion is completed; while if the animals be turned on good grass immediately after eating grain they will eat grass so greedily as to force the grain out of the stomach before the said juices have acted properly upon it, and while it is not probable this will cause any noticeable uneasiness or harm to the animal, digestion is not as complete as it should be and the horses will not receive as much benefit as otherwise. There is no doubt that crushed oats or other grain is more beneficial, pound for pound, than whole.

It is seldom, even in hot weather, that a horse is so warm that it is unsafe to feed him grain. In cases where he has been subjected to long-continued severe exercise, and has become excessively hot, it is wise to allow him to stand a few minutes and to give him a good rubbing down before feeding, but conditions like this seldom occur. When the time that he will be allowed to stand in the stable is limited to from one to one and one-half hours, as is the case at noon, even though the weather be hot and he is perspiring freely, it is better to give him his grain and allow him a few minutes after eating, than to allow him to cool off, then feed him and take him out to work as soon as he has finished eating. Horses that are kept in the stable should get a feed of bran at least twice weekly, in addition to their grain ration. This aids digestion and tends to keep the bowels in a normal condition; but those that go to grass during the nights do not require this, as the grass is all that is required. In hot weather horses probably suffer more from an injudicious system of feeding. It would be well if a horse could have access to clear cold water at will, but of course this is impracticable; still, the popular idea that it is unsafe to allow a horse to have water if he is perspiring freely, even in hot weather, is unfounded. Of course, as in feeding grain, there may be times when it would be hurtful to allow a horse all the cold water he would drink, such as cases where he had been subjected to severe exercise after long abstinence from water. In such cases he should be allowed a few mouthfuls and after a few minutes a little more. When a horse is excessively warm the introduction into the stomach of large quantities of cold water causes such a violent reaction as to excite gastritis, indigestion or founder. It seldom occurs that a horse used for either ordinary farm or road work is so warm that it is not safe to allow him all the water he will take, unless a long period has elapsed since he last had a drink. Theoretically, it is well to allow a horse water only before meals, but in practice we find it well to allow him to drink whenever he will take it. In my barn there is always an open supply of good clear water that the horses have to pass when being taken out to be harnessed or to reach their stalls after being unharnessed, and it is seldom, either in hot or cold weather, that a horse passes this without drinking. Even in the hottest weather I always allow a horse to take all he wants, unless he has been subjected to unusually severe exercise, and I have never observed any evil results. There are some horses so predisposed to

colic that it is unsafe to allow water shortly after a meal, and such should be treated accordingly, but as a rule it is wise to allow a horse to drink as often and as much as he will. The trouble is, especially with farm horses, it is not convenient to water between meals. The teamster will have a pail or jug of water in a shady place and will drink frequently, but the team has to wait until meal time. It would be better if the horses could be given at least one drink between meals in hot weather.

### Changes During Ripening.

As plants approach maturity and seeds are being formed, great changes take place in the distribution of those constituents which afterward serve a valuable purpose in the nutrition of animals. Chemically speaking, the principal elements that go to make plants are oxygen, nitrogen, hydrogen, carbon, sulphur, phosphorus and potash. The three latter, although essential, are not found in great quantity. Nearly half the dry combustible matter of plants consists of carbon, and with oxygen and hydrogen it forms the starches, sugars, and fats. Nitrogen, which is obtained principally from the air, is only found in the combustible portion of plant bodies to the extent of about four per cent. Hydrogen and oxygen alone form water.

After germination a tiny plumule comes forth, and as rapidly as climatic conditions will admit, the plant aims to produce root, stem and leaf, with, finally, a flower and seed. That period known as the grand period of growth is the time when plant tissue is being constructed most rapidly and when the greatest drafts are being made upon the fertility of the soil. At that time the plant is storing up in various combinations the different elements mentioned. When cereal crops reach full bloom they contain as much nitrogen and potash as is to be found in the mature crop. The assimilation of phosphoric acid, however, continues much later. As the seed begins to form, starch albuminoids (nitrogenous matter), phosphoric acid and potash are carried from the root, leaf and stem to be stored up in the seed. So it is that in seasons favorable to the maturing of seed the straw at harvest will be found quite exhausted. Likewise, during rainy harvests, the translocation of these materials does not go on so readily, and as a result the straw possesses a higher and the grain a lower feeding value than if desirable conditions had existed.

In the light of these facts, it may be readily seen why variations in the composition of our feeding stuffs are met with. A table showing the percentage composition of oats, for example, cannot be taken as a sure guide in all cases. In fully-matured grain the variation will not be found considerable. Any which may exist will be traceable to differences in soil or the season of ripening. The effect of season is best seen in the case of barley. Immature ripening, caused by cold, wet, or extremely dry periods, produces a grain high in nitrogenous substances, poorer in starch, and, consequently, low in value for malting purposes. For use as a stock food, a grain high in nitrogen is often desirable, but when a relatively high percentage is obtained only at the expense of other substances, almost or equally as valuable, no gain can be said to result.

In the case of such immature crops as corn fodder or meadow grass, the composition depends upon the stage of maturity at which the plant was cut and to some extent upon the character of the manuring. As a general law in this connection, chemists have stated that as the plant matures the proportion of water, nitrogenous matter, potash and phosphoric acid diminishes, while the proportion of starchy substances largely increases.

In drawing conclusions, farmers should be assisted by these considerations in determining the proper time to cut their crops. It is well known that many weeds if pulled while in bloom ripen seeds with sufficient vitality to again reproduce. A plant of any of our grains, too, if cut while in flower and kept with the stem in water will ripen seed, though the quality will be inferior. The statement is sometimes made that grain cut a few days before being completely ripe gives a brighter sample than if left until complete ripeness is attained, but at the expense of plumpness. When the weather is dry, grain withers up quickly in the shock, and as the water within the plant body is evaporated, the translocation of materials from stem and leaf to head must soon be checked. In the West, where such vast fields of grain are to be harvested, much cutting necessarily begins when the wheat is on the green side.

The prize list of the 28th annual exhibition of the Portage and Lakeside Agricultural Society has been issued. The dates of this fair precede the Winnipeg Industrial, being on July 16th, 17th and 18th. A handsome new pavilion has been erected on the grounds, which are located on the old track, a naturally beautiful site for a fair ground.

### An Immense Wheat Area Just Being Opened Up.

To point a moral or adorn a tale, a writer of the twentieth century after Christ may find much appropriate material in the history of the twentieth century before the birth of the Saviour of mankind, for like causes still produce like tides in the affairs of men even after the lapse of forty centuries. Throughout all generations the migratory instinct of mankind has persisted, only requiring some exciting cause to arouse it into action. These impulses are various as the moods and needs of humanity. By plague, pestilence and famine; by battle and murder and by sudden death, whole nations have been driven from their ancestral abodes. Hardy hordes of warriors, thirsting for adventure and full of the lust of conquest, have seized and possessed themselves of the empires and cities of higher civilizations. But, at the present day, the main movement is that of the surplus people of well-populated countries seeking in comparatively uninhabited lands new homes for themselves and their children.

Such a thickly-settled country is the United States, and such a sparsely-settled land is the great prairie of Western Canada, neighboring territories without any physical cause or impediment separating them. So unto his Western American brother the Western Canadian is repeating, in effect, the words used four thousand years ago: "Is not the whole land before thee?"

In the book of Genesis it is recorded how the Lord said unto Abram: "Get thee out of thy country . . . unto a land that I will show thee." So Abram departed and Lot with him. And Lot had flocks and herds. And the land was not able to bear them that they might dwell together, for their substance was great. And there was strife between the herdmen. And Abram said unto Lot: "Let there be no strife between me and thee, and between my herdmen and thy herdmen, for we be brethren. Is not the whole land before thee?"

Such a movement is a benefit alike to the country relieved of over-population and to the open land into which the immigrants enter. It is like the swarming of bees; and Canada invites and welcomes the busy bee from the American hive.

Whilst the migratory instinct is old as human nature, born with the race, modern means of movement enable man to gratify it with a quickness and ease undreamt of in ancient days. The tedious slowness of the ancient caravan by land, and of the oar and sail propelled galley by water, has been superseded by the swiftness of the modern railway train and the ocean liner.

Within a shorter space of hours than the period of years occupied by the Israelites in their toilsome and weary march from Egypt to the Promised Land, trainloads of immigrants, with all their goods and gear, are, with ease and comfort, wafted from Iowa to Assiniboia.

Then, the American husbandman, lifting up his eyes, beholds in the wild, grass-clad, flower-spangled prairies of Canada, a land full of the promise and potency of yielding to his skill and industry every cereal and vegetable of the temperate zone. Over this limitless field of green grass and brilliant flowers brightly shines the sun, in undoubted glory, for three hundred days in the year. The atmospheric conditions are such as enable a man of European origin to perform all outdoor labor without discomfort, and to rear his family in robust health and comfort. Moreover, under British-Canadian rule, life and property are protected, law and order are upheld, and social, educational and religious advantages are provided so thoroughly as to evoke the admiration of visitors from the United States, who imagined that a sparsely-settled, wild western land must necessarily be one in which such evidences of good government and law-abiding people could not exist.

The sparse and scattered present settlements are like oases in an unoccupied country, each the site of agricultural operations which have long passed the experimental stage, with results so uniformly successful that contented settlers, residing so far apart as the banks of the Assiniboia, the Saskatchewan and the Peace rivers, vie with each other in praise of the portions of the Great Lone Land in which they have made their homes. Besides comparing their grain and root crops favorably with those of any other country, they are unanimous in pronouncing the land they live in remarkably healthy and wholesome for man and beast.

So uniformly excellent are the agricultural and pastoral conditions throughout the length and breadth of Western Canada, that a choice of the most suitable locality for intending immigrants must be left to the tastes and likings of the individual. Embarrassed by the attractions of the country at large, it is difficult for one without decided preferences in certain respects to make a selection. To aid such as may prefer a district which adjoins the United States, which is entirely treeless prairie ready for the plow, which enjoys the best railway accommodation existing in any portion of the Territories, with assured prospects



**SELDON.**  
Gaited saddle horse. Owned by E. F. Frego, Hoopston, Ill.

of an early increase of this accommodation, the subjoined description of South-eastern Assiniboia is given.

**SOUTH-EASTERN ASSINIBOIA.**

The district now to be briefly described is bounded on the east by Manitoba; on the north by the settlements along the main line of the Canadian Pacific Railway from Moosomin to Moose Jaw; on the west by the Missouri Coteau; and on the south by the State of North Dakota.

The usual trend of the whole Canadian prairies are herein marked by the north-west and south-east direction of the Coteau to the left; the treeless prairie along the course of the Soo Line, in the middle; and the parklike, partially-wooded belt to the right, the western border of which may be roughly defined by a line running through Alameda and sweeping round to the west of the Moose Mountain towards the main line of the Canadian Pacific Railway.

The country along the Canadian Pacific Railway, between it and the Moose Mountain, and lying east and south of the mountain, has been under settlement since 1882.

The treeless prairie along the Soo Line only became available for settlement upon the completion of that road in 1892, when it became possible to procure by rail cheap and abundant supplies of coal from the mines near Roche Perce and Estevan on the Souris.

The traveller taking the Soo Line (officially known as the St. Paul, Minneapolis & Sault Ste. Marie Railway) quickly traverses Minnesota and the Dakotas, and enters the gateway of the Canadian Territories at Portal. Perceiving no difference between American and Canadian soil at the crossing of the line, as he speeds north-west the high, rolling prairie gradually assumes a gently undulating character, and, finally, about Yellow Grass, he enters upon a prairie appearing from the car window almost as flat and smooth as a billiard table. The ravines of the watercourses likewise diminish in depth and breadth as he proceeds onwards into Canada; and the soil, which near the frontier is light and shallow, increases in fertility and depth as the surface changes from a rolling to an undulating and then to a smooth appearance.

To the left of the track, about twenty miles distant, the bold, treeless, escarpments of the Missouri Coteau (an international ridge which runs north-west through North Dakota and Assiniboia to the Saskatchewan), rising four hundred feet above the level of the plains, bound the range of vision. To the right, shortly after entering Canada, the tree-clad tableland called the Moose Mountain looms two hundred feet above the general level of the country. After passing this by the way, the traveller is confronted by boundless prairie, save when he turns his eyes to the Coteau paralleling the road on the left.

For ninety miles, without curve or bend, straight as the crow flies, sweeps the train to Pasqua, the junction of the Soo Line with the main transcontinental track of the Canadian Pacific. Here its course is through one great uniform field ready for the plow, ninety miles in length and forty miles in breadth, with a soil and a subsoil of inexhaustible depth and fertility, capable of producing, under the summer-fallow system, one year with another, two hundred net tons of bushels of hard wheat or an equivalent yield of other grain. Eight miles west of Pasqua, on the main line of the Canadian Pacific, the south-western terminus of the Soo Line is reached

at Moose Jaw. Here the traveller may, at his will, pursue his way west through Assiniboia and Alberta to British Columbia and the Pacific Ocean. The Moose Jaw mills already export their famous flour to the Pacific, the beginning of the immense outflow yet to be of Assiniboia produce to the ever-open waters of that ocean and over it to the ancient Orient beyond.

Or, he may pass east on the Canadian Pacific through the magnificent grain-growing settlements stretching from Moose Jaw, by Regina, Qu'Appelle and Indian Head, to Moosomin, all of which afford object lessons of what good farming will accomplish in the vast areas of similar soil and climate which stretch south from the main line of that railway towards the international boundary. Should the passenger, however,

have got off at points on the Soo Line, and seen the farmers along it and those who occupy the settlements which here and there dot the plains lying north-east of that railroad, he would be better able to understand the lessons on the line from Moose Jaw to Moosomin, for these farmers would have informed him that they either originally came from or were well acquainted with the country along the transcontinental road, and that, while the soil of the Soo Line country is as good, the climate is more favorable in the way of an earlier spring and a later autumn than that of those older settlements.

Besides the main direct entrance from the United States at Portal, access to South-eastern Assiniboia is open from Manitoba and through Manitoba from the United States by the Souris and Pipestone branches, for the connections of which with the railway system of Manitoba the reader is referred to railway maps and guides. The gateway from the United States to both these branches is at Gretna, a convenient point to residents of the Red River Valley.

The Estevan branch crosses the famous wheat-growing district of South-western Manitoba into similar grain fields in Assiniboia, which support, at intervals of eight or ten miles, busy elevator and railway towns along its route to the west from Gainsborough to Alameda. Beyond Alameda, the line leaves the partially-wooded and runs through the treeless rolling prairie to its terminus at Estevan on the Soo Line. It follows a course generally twelve miles north of the U. S. boundary.

The "Pipestone" (properly, the Arcola) branch, which makes connection with the Souris branch at Montith Junction, in Manitoba, running about due west, gradually attains a distance of some twenty-five miles north of the latter, and, nearing the south-eastern slopes of the Moose Mountain, terminates for the present year at the flourishing town of Arcola.

From Arcola it is the intention of the railway company to continue their road westerly to a point some twenty miles distant from the Soo Line, thence turning north-westerly and preserving that distance from the Soo Line, it is to join their main line at Regina. This is expected to be completed in time to move next year's crop. Scattered along this projected line there are already a number of enterprising settlers, who, by the time they have grain to ship, will have railway facilities. Those located between the Soo and the Arcola-Regina roads will never be farther than ten miles from a point of shipment. The success already attained in grain growing by the farmers along this route, who, as in the case of the French settlement, at Alma

fourteen miles west of Arcola, find a ready market for their crops as seed to the newcomers, has demonstrated the excellence of the country.

Twenty years of settlement have demonstrated the profit in farming along the Souris or Estevan and the Pipestone or Arcola branches. The success of the stock-raisers in and along the well-wooded and well-watered Moose Mountain has been exceptional, even in a land where stock always does well. Upon the vacant lands in the vicinity of these older settlements, newcomers will do equally well.

It may be confidently asserted of the country along the Soo Line that the dread of drouth has been banished by the certain remedy of summer-fallowing. Well water is being found upon almost every farm where it is perseveringly searched for. Reservoirs to hold spring and flood waters sufficient to last stock for a year are in common use and by many preferred to wells. Meteorological observations have found that the rainfall is greater and the farming season is longer than at points further north which have become famous for phenomenal crops.

In a country so cold in winter and so destitute of wood, save occasional narrow fringes along the courses of the few streams, the presence of unlimited quantities of coal near the railway at Roche Perce and Estevan is of the utmost importance. Whilst the coal supply is now obtained from these mines, there is a certainty that the seams of superior coal which crop out frequently all along slopes of the Coteau will become mined opposite convenient points on the Soo Line. Useful brick, pottery and fire clays also occur abundantly along the Coteau, giving promise of future industries.

The land along the Soo Line was first thinly occupied by men who came from the main line originally to raise stock, but now remain to grow grain. Hay meadows occur occasionally on the prairie, the larger and best-known being those around Buck Lake and at Yellow Grass marsh. In the valleys of the Souris and other streams there are also exceptionally fine hay meadows. These exist likewise in the depressions of the Coteau country, which, with its rolling hills, whose tops are swept clear of snow by winds in winter, affords exceptional advantages to the cattle, sheep and horse rancher who desires the free range unattainable in agricultural districts.

Statistics collected by me during a recent journey, undertaken with the express purpose of obtaining accurate information about the district, show the average yield of wheat in the old settlements south of Moose Mountain for the last twenty years to be twenty bushels per acre. The average yield along the Soo Line, from Estevan to Buck Lake, for the last four years has been twenty-seven bushels to the acre, under proper cultivation. The yields of oats and barley were proportionately large. Wild flax growing luxuriantly in the parts just mentioned, led to the experimental sowing of flax on spring breaking. This resulted in crops ranging from 15 to 25 bushels to the acre, averaging 20 bushels. The quality of the grain was also exceptionally good. Consequently, a large area has been put under the crop this year, and it is believed by many well-informed farmers that the country will be come as favorably known for the production of flax as of wheat, which will form a rotation.

This grand country is being rapidly settled by the finest class of experienced, well-to-do farmers, chiefly from the United States. These men bring to bear at once on the soil every requisite for successful farming on a scale more extensive than has hitherto ever been practiced by so large a



**HANDSOME BRICK HOUSE AND BARN OF JOHN FERUS,**  
Portage la Prairie, Man., who recently sold 10,000 bushels of wheat of his own growing.

number of newcomers in any part of Canada. Their success seems assured, and will be followed by a still greater influx of their overcrowded compatriots, of whom Canada, with her dearth of population and her boundless wealth in natural resources, still asks the old-time suggestive question, "Is not the land open before thee?"

ISAAC COWIE.

**Poultry Breeds and Crooked Breasts.**

In the "Farmer's Advocate" for May 20th, Mr. Graham gives the time-honored answer, that crooked breastbones in fowls are caused by roosting too early. Why do turkeys, which roost as soon as they can fly high enough, and which have prominent breasts, seldom have crooked breastbones? The mongrel chicken that looks out for itself and roosts as it chooses seldom is deformed. For the last three years I have kept my chicks in low houses, and did not let them roost until well grown, and I have had a plentiful supply of crooked breasts every year. Last year a lot of late-hatched chicks sat in the dust-box all winter and did not roost till near spring, and then on a three-inch perch, but nearly every one had a crooked breastbone. Previous to that we had let the chicks look out for themselves and roost as they chose, and crooked breasts were a rare occurrence. These crooked breasts are generally among my Barred Rocks, Brahmas and Houdans don't seem to suffer at all, and Wyandottes only slightly. The reason for this is, I think, that the breastbone of the Brahma, though prominent, is firm, while that of the Rock is softer and more easily injured, and though Rocks mature much earlier than Brahmas, yet their breasts do not get plump soon enough to protect them. On the other hand, the Wyandotte and Houdan, with smaller bones to begin with, are always plump if they get half a chance, so that the breastbone is well padded with meat, which protects it. I have had five breeds so far, but find that too many, so that I am going out of Brahmas and Rocks. If the Rocks fattened as easily as the Wyandotte, I should prefer them on account of their greater size, but after the first two months they seem to grow to bone. If they are to be sold as broilers they are all right, but if they are to be kept till they weigh 3½ to 4 pounds, it is quite a job to fatten them, while the White Wyandotte of that size takes on fat without trouble. Of course, my chicks have full range, and if penned up there might be a difference, but I think even then the Wyandottes would be fit to kill quite a bit sooner than the Rocks. Besides this, the Wyandotte pullet will lay a month sooner than the Rock. I like what I have seen of the Buff Orpington. It is as large as the Rock and seems to mature earlier. Crossed with White Wyandotte they make a better market fowl than any of the pure breeds. I had cross-bred pullets last October that outweighed the best Wyandotte cockerels, while the cockerels averaged a pound heavier than Rocks of the same age.

C. W. BEAVEN.

**Plan of Poultry House.**

The accompanying illustrations, Figs. I. and II., represent a poultry house for a small flock of hens, but the same arrangement can be extended both in width and length. We would suggest that the house be divided into three pens, each one-third larger than those shown in the cut. These would each accommodate 33 hens, which is as large a flock as should be together. Or it may be better still to extend the pen in length and divide it into four pens, each to contain twenty-five hens. The dimensions would then be, for the whole pen, 40 ft. long by about 12

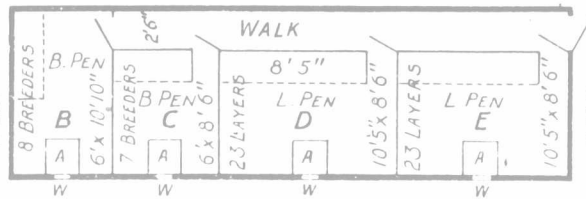


Fig. I.

ft. wide, as the passage would be better 3 ft. wide.

In Fig. I., pens B and C are for breeding stock. These could be made into one pen for general stock if desired. Pens D and E are arranged for layers, in which five to six square feet should be allowed for each hen.

Fig. II., showing cross-section, shows nest-boxes one foot square. The diagram shows door opening from nest-boxes into walk, from which the eggs could be gathered from all the pens except B. The squares marked A in Fig. I. represent dust-baths in front of windows. The build-

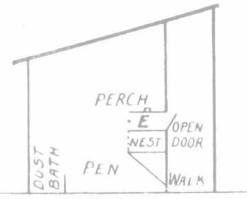


Fig. II.

ing should run east and west, so the fowls could get the sun. The floor should be double-boarded to prevent drafts. Yards can be extended south of each pen to any desired extent, and should be not less than 50 to 75 ft., if that is all the liberty the fowls are to be allowed. The division fences could, with advantage, be planted with grapevines, and plum or other fruit trees should be planted in the yards.

**The "Advocate" in New Offices.**

Owing to the rapid increase in the subscription and advertising business of the "Farmer's Advocate," it has been found necessary, in order to accommodate the additional staff necessary to handle the business, to remove into new quarters. Our friends will now find us in the Christie & Heubach block, on Bannatyne Ave., just off Main St. We have taken up the whole first floor of this block, which furnishes us with very commodious business, advertising and editorial rooms. The Winnipeg Industrial Exhibition Association have removed their offices into the same block, which is one of the most modern and handsomely-finished business blocks in the city.

**Insect Enemies of Live Stock.**

The annoyance and loss caused by attacks of flies of various kinds upon farm stock during the months of July, August and September is a matter of no inconsiderable importance to stockmen. Yet it is surprising in this day, when agricultural knowledge is being so freely disseminated, that many farmers fail, either through neglect or not posting themselves, to afford proper protection to their animals.

Principal among these parasites has been the horn-fly (*Hæmatobia serrata*), whose blood-sucking efforts to subsist upon cattle are well known to everyone. Early in June of each year they make their appearance, and ere the dry pastures of midsummer are seen, they have become so annoying as to lessen the flow of milk on the one hand or the ability to lay on flesh on the other. So great is the harm done, that no one who puts the least thought into his business or who makes any attempt at the profitable production of farm products will fail to take some means to combat this pest. A mixture of seal oil (fish oil) and crude carbolic acid, mixed in the proportion of two tablespoonfuls of the latter to one gallon of the former, is a good homemade remedy, and various effective special preparations are on the market. The former should be applied every five or six days during the summer, rubbing well with a brush or swab every part of the body. Much can be done, also, to prevent the propagation of this fly by destroying its breeding places. The eggs are laid in the fresh cow manure, and before it has had time to dry, under ordinary conditions, the young larvæ are full-grown and ready to pupate. The manure should, therefore, be spread out every two or three days and forced to dry up before the larvæ have time to attain their growth.

The season has now arrived when the hot flies of different species become troublesome. The eggs of the horse bot, after being licked up by the horse, pass into the stomach, where they immediately hatch and remain for a considerable time attached to the inner coating. After full growth is attained, they pass out and enter the ground, where the pupa stage is at once entered upon. Although some horsemen claim that but little harm is done by the horse bot, the fact remains that their presence within the stomach must be the cause of considerable irritation, and hence they cannot be conducive to good health. While it is difficult to kill the larvæ within the stomach, a great deal can be done to diminish their numbers by removing and destroying the eggs as they are deposited on the body. The fish-oil and carbolic-acid mixture, if applied regularly to the throat and fore legs, will prevent the deposition of eggs on these parts and in a large measure protect the animal from the annoyance of the fly.

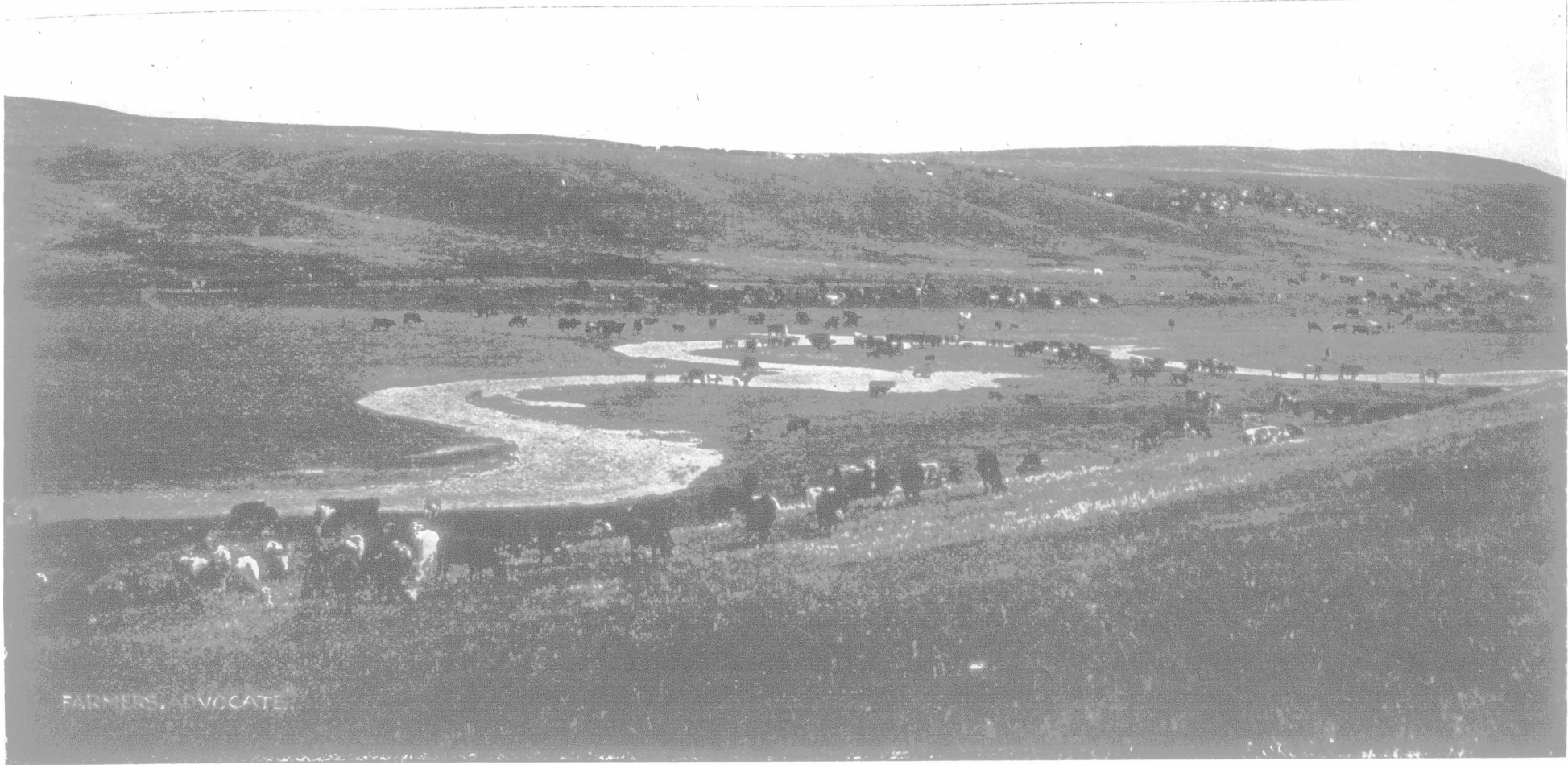
The life-history of the ox bot is similar to the species just described, the only difference being that the young larvæ, instead of entering the stomach, find their way from the œsophagus, or gullet, through the muscular tissue to a point just below the skin. There they may be seen during the last days of winter as "warbles." This fly is easily controlled. Animals which are regularly treated with the horn-fly preparation during the egg-laying season of summer rarely suffer to any extent.

Sheep bots cannot be so readily held in check



FARMER'S ADVOCATE

GENERAL ROUND-UP, SOUTHERN ALBERTA.



RANGE CATTLE AT PINE COULEE, WILLOW CREEK RANGE SOUTHERN ALBERTA. GENERAL ROUND-UP, 1901.

The egg, as it is about to hatch, is deposited on the nostril, and the young larva finds its way upward through the nasal opening in the mucus under the skin. All that can be done with any degree of satisfaction is to prevent the egg from being laid. Tar placed on the sheep's nose acts as a good repellent, but it should be repeated at least weekly. Fish oil and crude carbolic will answer the same purpose.

The horse-flies compose another set of troublesome creatures. Their mouth-parts are specially built for extracting the blood from man's most noble friend. Their reproduction cannot be controlled. The only successful method of defending horses is by the use of nets. Farmers should not fail to supply themselves with the necessary means to combat these and other insect pests. The results will be found on the right side in dollars and cents.

**Beekeeping in Manitoba.**

**EXTRACTING.**

Before the time for extracting arrives, the combs to be used for that purpose should be selected. This, indeed, might very well have been done when making things snug for winter at the close of the last season's work, but if neglected then, should certainly be seen to as the bees build-up in the early part of the summer. Combs which are wired and in which brood has been reared should be selected for this purpose. New combs, even though well wired, often collapse in the extractor, despite the most careful handling. These should be used in the brood nests, and the tough old combs that have been already in use there kept for the extracting supers.

As the clover blossoms appear, the hives should be emptied of any surplus honey they may contain, without regard to whether it is capped or not. While very good honey, this is usually dark and had better be kept by itself. From that on to the end of the season it is all of good quality and color—at least this is so in my locality—and may all be allowed to go together.

It is pretty generally accepted that the beehive is a laboratory in which nectar collected from the flowers is converted into honey by a process which is complete only after the cells in which it is stored are sealed over. So that, even though the inexperienced may detect little, if any, difference between sealed and unsealed honey, the fact is that one is honey at its very best, while the other is honey—or nectar—that has not yet reached that degree. It may be that the process continues and the unsealed honey "ripens" after being extracted, and ways have been devised for ripening such honey. But the bees have the only fool-proof process—and it is covered by patents—so men of experience leave all that to be done in the hive, and extract only after the combs are sealed over. The beginner may think he is getting a gain by extracting sooner, as the work of capping is generally slow and disagreeable to get on to the work. But practice and the proper use of hives kept as it should be, as sharp as a razor, will soon overcome these objections, and no one is worth considering if it results in lowering the quality of the honey placed on the market. Beekeepers have a large and growing market, which they should set themselves to acquire just as quickly as they can acquire the

bees to do it with, and the only way to capture and hold this market is by supplying the very best article possible. For this same reason everything about the extracting-room should be scrupulously clean, and flies and dust excluded.

Honey should, of course, be strained as it comes from the extractor. I suppose different people have different ways of doing this and different kinds of strainers as well. Here is a method, and a cheap one, which does everything that any strainer will do, and one very important thing that no other will, viz.: corners the pestiferous fly that persists in drowning itself in the nice clear honey just as it is being poured into the containing can. It is simply a piece of factory cotton spread over the retaining can so as to bag somewhat, and fastened with a string or strap around the can. This may be thought too cheap to be good, but one trial will make it a favorite.

Another thing to remembered is that honey, whether extracted or in the comb, absorbs moisture and this detracts from the quality. Extracted honey that is to remain unsold for a time should be kept in closed vessels, and sections stored in a room that is both warm and dry, and both should be religiously protected from odors of all kinds.

J. J. GUNN.

Red River Valley.

**July in the Garden.**

July, though not as busy a month for the gardener as the months of May and June, is still a period requiring much care and attention to the growing crops and guarding against numerous insect pests and diseases. The greatest task is the annihilation or, what is better, the prevention of them by intensive cultivation, always keeping the soil around the growing crops stirred, which keeps weeds from gaining a foothold, prevents moisture from evaporating, and promotes changes in the soil beneficial to the plants. Watering is essential to maintain a steady growth during dry weather, and, as mentioned in my last article in May, it has always paid me well, especially in the production of early and choice specimens.

All plants of the Brassica, or cabbage, family, including cabbage, cauliflower, Brussels sprouts, etc., should be kept growing rapidly, not only to promote earliness, but to guard against disease, especially clubroot, the most serious pest of this class of plants. The only remedy, besides the application of lime and carbolic mixtures to the roots, is to keep the plants growing vigorously both by continuous cultivation and fertilizing, which are the essentials to the production of this class of vegetables.

Beans and peas require to be kept clean of weeds and the earth drawn up to them at frequent intervals during the month, care being taken not to cultivate when the soil is wet, as in the case of beans it is always sure to result in mildew and rot, especially when the pods are formed. The plots devoted to root vegetables need little care other than cultivation to keep down the weeds and conserve moisture, thus promoting rapid growth. Corn and potatoes are not hilled as much as formerly, many advocating surface culture or shallow mottling as most essential.

But in the case of potatoes, except where the stalks tend to grow exposed, hilling should not be resorted to, but low ridging, care being taken not to stir the soil too deep, is the method now extensively practiced. Of course, where cultivation is mentioned in this and previous articles, hand cultivation is referred to, either by the rake or hoe and hand cultivator, but if the garden is laid out for horse cultivation, the principle holds good in both cases. Tomatoes make the most of their growth during the month, and when grown on stable manure they often become rank before setting fruit. This is owing to an excess of nitrogen, the same cause that so often runs potatoes all to tops. Clipping off some of the branches, leaving only the strongest and thickest, will often greatly increase their earliness and productiveness. But provided the soil was in good condition at the time of transplanting and not over-rich in this element, the tomato plants should be quite bushy and stocky and in blossom and fruit. Still, they need support of some kind, the best being the hoop or ladder trellis described in my article for February; small stakes driven in the ground and the plants tied to them with soft twine, or what is better than anything, if it can be procured, brush placed between the rows, will result in an increased crop of early and better specimens. When kept off the ground the loss from rot in wet weather and the shading of the maturing fruits are prevented. Squash, pumpkins, and other plants of the same nature and requirements, begin to run and cover the ground, but if they grow rankly the fruit is apt to be small, at the expense of the vine, for the same reason as before mentioned in the case of tomatoes. Clipping the ends of the vines and working some wood ashes or phosphate around the plants will result in great improvement in most instances. A successful strawberry grower was asked how he got such large crops of immense berries. He said the secret was cultivate, cultivate, and cultivate. So in the vegetable garden this rule can be well applied during the coming month. Hoeing is easier than pulling. Continual scratching, even with a garden rake, results in the prevention of more weeds in five minutes than could be pulled out in an hour three weeks later.

EDGAR E. MACKINLAY.

**Inspect Stock Leaving the Country.**

Some of the horse dealers in this country are right in the agitation they are making for an amendment to the Stock Inspection Ordinance to provide for the inspection of stock trailed out of the range country, for brands and marks. The ordinance provides for the inspection of stock shipped on the railways, but it appears there is no enforced inspection of stock trailed out. Where there is no inspection there is room for crookedness, in case the party handling the animals is unscrupulous enough to attempt it. Horsemen, especially, are interested in this agitation, for, if there is any advantage taken of the absence of inspection, they are the sufferers to a greater extent than cattlemen. When there is room for improvement the improvement should be made. The Stock Inspection Ordinance should be made broad enough to compel the inspection for brands of every animal leaving the stock country. Medicine Hat News.



SWAINSON'S HAWK.

### The Practical Value of Bird Life to the Agriculturist.

That bird protection is necessary and beneficial to our country is no longer disputed by the most matter-of-fact, but the several claims of these interesting creatures to such protection are still unknown and unrecognized by many of the more intelligent. The general desire to protect is, in the game birds, to maintain a supply for sporting and food; and among the smaller birds, because of their general cheerful companionship to man. These individual and comparatively insignificant reasons exclude from the minds of the more superficial observers many groups and species holding strong claims to our protection, and an advocacy of the claims of these forms regularly raises the question, "Of what practical value are birds, that they should be protected?" We protect the grouse and ducks because they are edible. We desire protection for the smaller birds because they sing about our doors, and are altogether cheerful companions; but this is all. We ruthlessly destroy hundreds of songless birds because we have an idea they are destroying our fruit, while we leave the most important occupations on the farm, frequently, to stretch out the shotgun and shoot down a hapless hawk or owl which happens to wander near our domiciles. We shoot it down and return to our work. If the question is asked, "Why did you shoot that hawk?" the reply is, "To protect my chickens"; and were you to dissect this bird before the eyes of the average prejudiced farmer and show him the stomach full of gophers or mice he would not be persuaded that the bird had any other intention or purpose in life than to destroy his poultry.

Ask the average fruit-grower why he destroys the robins, woodpeckers and waxwings, and he will say, "To protect my fruit." He forgets that these birds have done more to protect his fruit to the ripening stage than he has done, by their continual removal of insect enemies, and because they dare to appropriate the fruit they have protected they are robbers.

It is to be regretted that so little has been done by our home societies and governments to place these matters before the farmer in their proper light. We are not all naturalists, nor can we all be accurate observers of nature, or by personal research discover the truths as thus revealed, but it is certain that a systematic investigation in the various districts of the feeding habits of these forms of disputed economic value, and a tabulation of results, could not fail to convince the most prejudiced. The question of



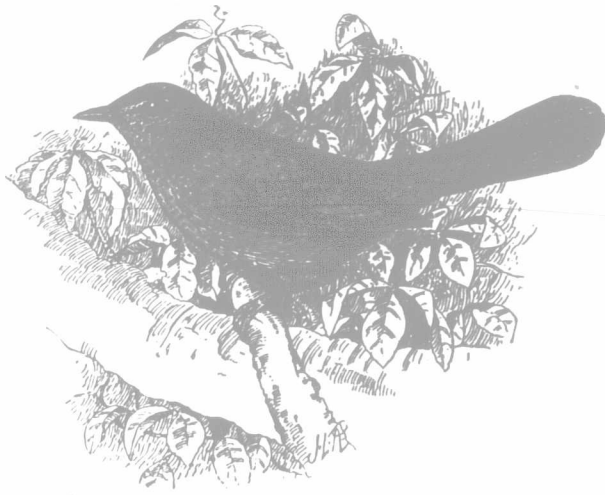
RED-TAILED HAWK.

noxious weeds is extensively dealt with by agricultural societies, but the economic values of our feathered weed destroyers is unworthy of our recognition or, at least, has heretofore been considered unimportant, and just so long as it remains unrecognized as an important economic agricultural factor by these institutions so long shall prejudice prevail in the mind of the agriculturist and fruit-grower.

It was for the rectification of this very evil that the United States Government some years ago established a bureau of investigation in connection with their agricultural department, and the same work is now being taken up by several of the States individually, and in every case their investigations have resulted in remodelled and more carefully worded and enforced bird laws, and from the bulletins of the Washington bureau particularly we must to-day cull our information upon these subjects. To these alone can naturalists conducting individual investigations in Canada refer for a verification of their own researches and discoveries.

We have in Manitoba some 28 species of hawks and owls, and I invariably notice that of these birds, as with humanity, it is the innocent which suffer for the guilty, and species which are friends of the farmer and protectors of his interests, which, possibly because their honest intentions make them less wary and an easier mark for the shotgun, are ruthlessly destroyed, while the guilty goshawk and falcon escapes with his quarry unscathed. If the doubtful investigate for themselves they will find that the majority of our common hawks, familiarly dubbed hen-hawks, prey almost entirely upon mice, gophers and other injurious animal and insect pests. The same may be said regarding the work of all our owls, and especially is this true of the smaller species.

As a result of investigations made of the work done by these birds, I may refer to the records made in my paper upon "Manitoba Birds of Prey," read before the Historical and Scientific Society in Winnipeg in December, 1898, and quote from the



CATBIRD.

concluding summary, wherein it is shown that there are nine hawks and eleven owls, mostly beneficial, which average as a result of extensive stomach examinations only 16.1-3 per cent. injurious, of which 12 per cent. is among small birds of doubtful economic value, leaving only 4.1-3 per cent. injurious to poultry and game combined.

In the harmful species, the record shows but 25 per cent. injurious to poultry and game birds, while the same percentage is proven beneficial, the remaining 50 per cent. being destructive to smaller birds of doubtful economic value because of the non-determination of the species. As it has also been shown that the three species most injurious to small birds prey chiefly upon two pests, the English sparrow and the blackbird, their injurious records may be reduced at least one half. We consequently find 50 per cent. of the most harmful species entirely beneficial, and only 25 per cent. injurious to poultry and game combined.

Of the species regularly destroyed as injurious, which should claim our protection, there are the marsh hawk, that large reddish-brown hawk with the white bar across the root of tail; a very numerous and entirely beneficial species, feeding almost entirely upon mice and frogs. Swainson's hawk, a larger, broader-winged soaring hawk seen about the prairies very commonly, and whose food is almost entirely gophers and mice; and the red-tailed, red shouldered, and broad-winged hawks, three slower flying large hawks found in the woods and partial clearings, and whose food is also mice and gophers in the majority. The spy, alert little sparrow hawk, which industriously pursues its prey in true falcon style and which feeds entirely upon mice and insect life, chiefly grasshoppers in their season of destruction. And all the owls, with possibly the exception of the great horned, feed in the majority upon mice and other animal pests. These are a few records, lightly touched, to endeavor to establish the beneficial records of these feathered agricultural police, whose efforts have, through ignorance and prejudice, been so long disregarded or misunderstood.



GREAT HORNED OWL.

While our antipathy towards the smaller birds is not so pronounced, because of the sentiment in their favor as companions to man, we are, nevertheless, as slow to recognize their economic value, as in the case of birds of prey, and in some cases we overcome our sentiment and destroy the species because of their fruit-eating propensities. The cases of the robin, waxwing (or cherry bird), cat-bird, and some of the woodpeckers, before referred to, are those which attract chief attention. Now, when we consider that the food of these birds for the entire breeding season and, in fact, during that portion of the year when fruit is not available, consists entirely of insects, in the majority most injurious to fruit and grain, it is but justice that they should receive protection in return for their labors, and if we desire to save our cultivated fruits we can do so by planting in our groves and orchards a few wild fruit vines or bushes, and when these bear fruit the birds will take it in preference to the cultivated varieties. Many varieties are available and favorites of the birds, such as wild currant, grape, chokecherry, saskatoon and the mulberry. Let fruit-growers experiment upon this idea and they will be amply rewarded for their pains, and will save many cheerful and happy lives from premature destruction.

Many species, because of their entirely insectivorous nature, should receive our strongest encouragement, and accommodation should be provided for them. Swallows and wrens are especially deserving, and boxes and nesting sites should be arranged for their accommodation during their summer sojourn amongst us. These should be constructed with a small round opening large enough for the bird desired to enter, but too small to permit of the invasion of that increasing nuisance, the domestic sparrow. The holes should have no perch at the opening upon which the sparrow can alight. The owner, if it be wren or swallow, can enter quite easily without a step to stand on.

Other species which, because of their beneficial character, should receive our encouragement are the Baltimore oriole, meadow lark, rose-breasted grosbeak, and black-billed cuckoo, and we can materially assist these by doing what we can to discourage the sparrow in our vicinity.

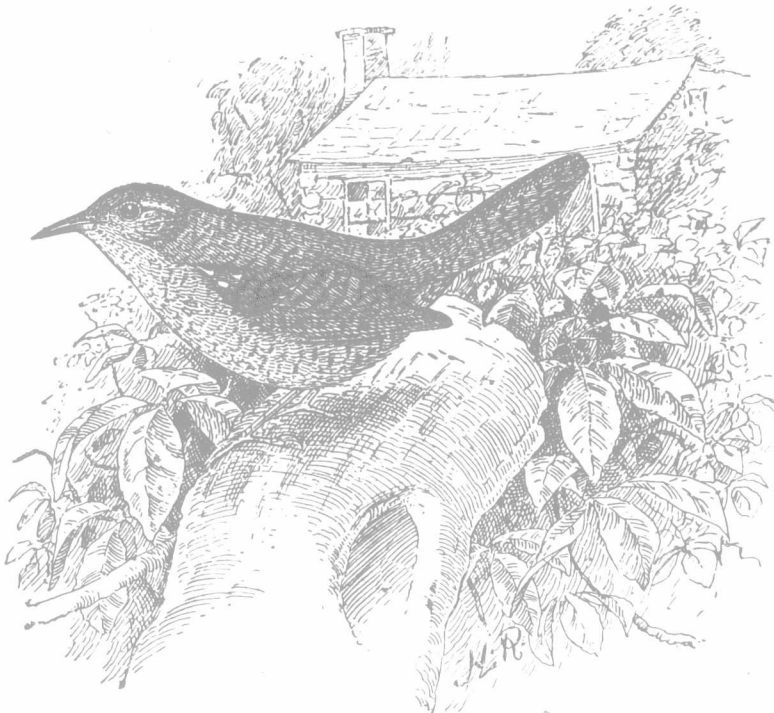
The food of the Baltimore oriole consists of 90 per cent. injurious insect life which is gathered among the swaying branches of our forest, fruit and ornamental trees.

Over 80 per cent. of the animal food of the meadow lark is injurious insect life, chiefly grasshoppers. The efforts of this bird in the destruction of the immature hoppers is in itself a strong claim to our recognition.

The rose-breasted grosbeak, one of our most beautiful species in song and plumage, is an exceedingly beneficial species, the entire food of



SCREECH OWL.



HOUSE WREN.

adult and young during nesting consisting of noxious insect life. This is one of the few birds known to be fond of the much-despised and objectionable potato beetle, and this in itself should obtain him our protection.

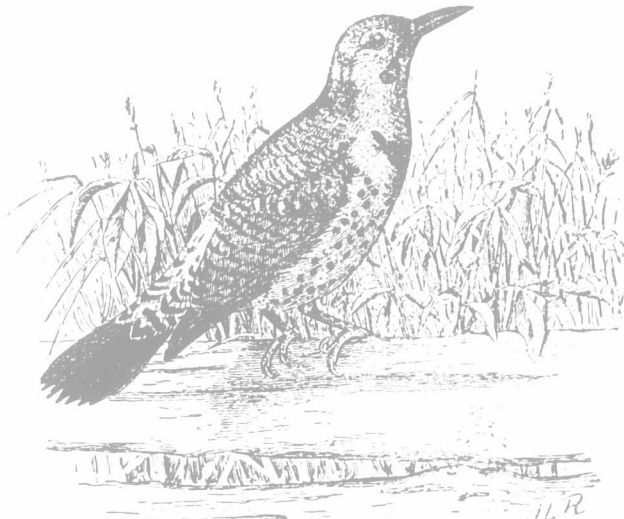
The claim of the black-billed cuckoo cannot be made too strong, as this species is entirely insectivorous, and it is the one species known to be fond of the hairy caterpillar and the shagmoth. During the ravages of these pests the cuckoo may be seen cleaning off the tough cocoons from the trees infested and devouring the chrysalis with avidity. It may also be seen devouring the hairy caterpillar, and if a bird be collected at such times and dissected the stomach coating will be found to be pierced through and through with these bristle-like hairs, such not causing the bird any apparent inconvenience.

Another group whose claims are not recognized are our finches, and apart from their partial insectivorous character, they perform annually a work in noxious weed destruction which is a very considerable item in economic agriculture. These species, which include all our summer-visiting native sparrows, goldfinches, and siskins, as well as our winter-visiting grosbeaks, snowbirds and redpolls, constitute an army of no mean numbers, and from the maturity of the weed until the following spring the seeds, with a mixed insect diet, make up the entire food supply of these birds.

Having for a number of seasons kept several hundred of these birds, representing from fifteen to twenty common species, in an extensive aviary, and kept them in excellent condition with no other food than most noxious weed seeds, I am in a position to estimate the vast amount of good done by the countless numbers of these feathered seed destroyers in a single season.

These are but instances of the strong claims of our native wild birds to our protection, and it will be found, save in a few isolated cases, that all our native species are deserving of our protection for some reason, and it is certainly advisable that before any steps are taken to destroy or exterminate any form, careful enquiry should be made to see that their injurious characters overbalance their beneficial. Also, whether their entire removal might not be liable to result in the development and encouragement of a more dangerously injurious form.

Too much care cannot be taken when an interference with nature's balance is contemplated. The result of past experiments have in many instances proven disastrous. It is certain that only through a competent authority investigating in connection with the agricultural bureaus of the



Flicker.

country, can such matters be satisfactorily dealt with.  
GEO. E. ATKINSON,  
Winnipeg, Man.

**The Hedge Fence Question.**

The following correspondence will explain itself:—

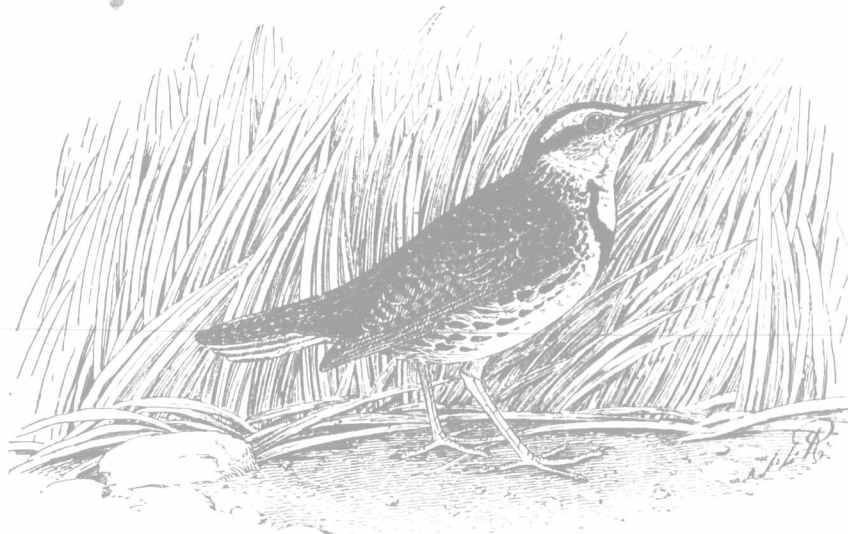
The Manitoba Farmer's Hedge & Wire Fence Co., Limited,

Brandon, Man., June 14th, 1902.

"Farmer's Advocate," Winnipeg, Man.:

Gentlemen,—We herewith enclose you letter for which we request your careful consideration, and hope you will see your way clear to publish it through your paper, as a number of articles have appeared through your columns which have been detrimental to the interests of our business. This letter we have written as an answer to the articles in question, and we are prepared, if necessary, to pay for said publication, but if you refuse to accept this letter for publication we herewith make to you the following proposition: "That we will pay the expenses of a delegate who shall visit the City of Chatham, and surrounding country in Western Ontario, for the purposes of investigating the hedge fence business as carried out by the Chatham Hedge & Wire Fence Co., Limited, where the manager of this company spent a number of years in that business, and where we claim the hedge fence business has been a grand success, and is the only place in the Dominion of Canada where the business is conducted under the methods which we are using in the Province of Manitoba, and all we ask in return is a fair and unbiased report from the delegation, of which your representative shall form a part.

If you accept this offer, we will endeavor to



MEADOW LARK.

arrange to send said delegation at the earliest possible date to suit all parties concerned.

Yours respectfully,

(Sgd.) THE MANITOBA FARMER'S HEDGE & WIRE FENCE CO., LIMITED.

B. D. Wallace, Secretary.

**OUR REPLY.**

Dear Sir,—Yours of the 14th inst. duly to hand, together with the lengthy article to which you make reference. We have, as you intimate, published a number of articles in the "Farmer's Advocate" dealing with the question of hedge fences, and pointing out some of the features which we deemed objectionable in the contract form used by your company, in the hope that we might deter those of our readers who otherwise might be induced to waste some of their hard-earned money on trying to grow hedges. As the "Farmer's Advocate" we feel bound to guard their interests as jealously as our own, and from a somewhat extended knowledge of this country we are fully persuaded that hedge fences are not desirable, nor can they be grown successfully under farm conditions in this country. The lengthy typewritten effusion which you send us is simply an advertisement of your own business, and does not, as far as the question of hedge-fencing is concerned, contain any attempt at refutation of the facts that have already been cited in these columns to show that such fences are entirely unsuited to our conditions. Your statements going to show that the buckthorn is

hardy are of no practical value when, in the same sentence, it is acknowledged that it would require five or six years for it to grow large enough to turn stock. That one fact alone is quite enough to convince anyone of the absurdity of talking buckthorn hedge fences for the farmers of Manitoba. Who would undertake to fence on both sides of a strip of hedge, thoroughly cultivate and tend it for six years in the hope that possibly it might in that time make a fence.

We attach no value to the typewritten testimonials to the Chatham and Hamilton Hedge & Wire Fence Companies, or to those of similar character to your own company.

Your proposition regarding the sending of a delegation to the Chatham district of Ontario is equally absurd, for supposing even that hedges can be grown in that favored district—which is the most southern in Canada, 500 miles further south than we are, and being surrounded on three sides by water, the climatic conditions are entirely different from the conditions existing in Manitoba—what would it prove regarding the growing of hedges here? Absolutely nothing.

The "Farmer's Advocate" is fortunately situated, in that our connection with the eastern edition of our paper places us in close touch with the strong editorial staff of that edition, and this enables us to keep fully posted on Ontario conditions. We are quite familiar with the failure of the hedge fence in the east, and a trip such as you suggest would be quite an unnecessary waste of time. We know all we want to of the hedge fence business, and we propose to let the farmers of Manitoba have the benefit of some of our information. In our issue of June 5th, you will find a very carefully written summary of the experience of Ontario with the hedge fence business, and we would recommend you to read it.

As to your nursery business, that is an entirely different matter, and we will be pleased to welcome such an energetic business concern to the ranks of provincial nurserymen.

Yours truly,  
THE "FARMER'S ADVOCATE."

**Russia Our Competitor.**

Reports from London, England, state that Russian butter continues to arrive in large quantities. The imports into the United Kingdom in one week during May were 631 tons, as compared with 284 tons for corresponding week last year. When figured in lots of sixty lbs. each, it shows an increase of nearly 13,000 tubs. Last year the increase in Russian butter was over 8,000 tons; this year it will be materially greater. Russia is already second on the list of butter-exporting countries to England.

**The Influence of Feed on Milk Fat.**

The report of experiments conducted at the Agricultural College, Wye, England, to determine the influence of feed on the content of fat in milk, has lately been issued. It tends to support the view previously held that the amount of butter-fat which a cow gives is not materially dependent upon the nature of her food, but is governed by other causes, such as the period of lactation and the inherent aptitude of each cow to give rich or poor milk.



BALTIMORE ORIOLE.

**Portage la Prairie Annual Plowing Match.**

The annual plowing match under the auspices of the Portage and Lakeside Agricultural Society took place on Wednesday, the 18th, at the farm of Dr. Cowan, on section 15-12-7, and was an unqualified success. The field was a most suitable one for the occasion, being in the center of one of the finest districts of the famous Portage Plains. The soil is a heavy loam, and notwithstanding the recent heavy rains, was in a fairly good condition for plowing.

On Tuesday preceding the match there was a heavy fall of rain, and it was not until 4 o'clock in the afternoon that the committee succeeded in making a start in measuring off the ground. Wednesday morning, however, opened bright and windy, and by 9.30 there were thirty outfits on the field to take part in the contest. There were three outfits from Brandon, one of which was James Sutherland's, the champion of Manitoba for 1901. In all, there were 13 gang plows and 17 walking plows. Balloting for places then took place, and by 10 o'clock operations were in full swing.

The weather continued favorable throughout the day, with only one or two slight passing showers. The judges for gang plowing were Messrs. James Henderson, Brandon; A. Batters, Portage la Prairie, and Tully Elder, Brandon; for walking plows, Messrs. Tom McArtney, Longburn; Tom Gibson, Portage la Prairie, and J. G. Gibson, Belmont. Their work was difficult, but they spared no pains in arriving at a just and accurate estimate of the plowing, and their decisions gave satisfaction not only to the competitors, but to the large number of plowing experts who were present from various points.

The quality of the plowing was of a very high order as a rule, and great improvement on former work was observable, especially in classes for boys. Some of the old pioneers, who questioned the advisability of starting such matches three years ago, are now the readiest to admit the good that they have done to the agriculture of the district. As showing the quality of the work done and the closeness of the competition, it may be noted that only one point differentiated the work done by the first five competitors in Class I.

There were two great centers of interest throughout the competition, and there the crowd thronged throughout the day. One was the competition in Class I, for the special prize of \$50 donated by James MacKenzie, M. P. P. This prize was open for competition to the Province. Here the three Brandon plowmen, led by James Sutherland, the champion, tried conclusions with the men of the Portage Plains. After a stiff and exciting contest, David Little, of the Plains, came out winner with a score of 72 points, James Campbell, of the Plains, being second, and Stott and Guild, of Brandon, third and fourth. In justice to Sutherland, we must state that he made a splendid fight, but was handicapped with an unsteady team.

The other center of interest was the competition for the premier position in Class IV, the men's gang plowing. It was seen early in the day that there was to be a splendid fight for this position between Tom Yuill, the champion of this class for 1900 and 1901, and George Macvicar, both young farmers of the Plains. Macvicar made a splendid opening, gaining, at the start, two points on Yuill. From start to finish it was neck and neck nearly all day, but Macvicar, gaining two points on a capital finish, came out ahead with a

score of 82, against Yuill's 79. Macvicar's score was the highest made on the field over all classes. The result here, as in the case of Little, was received with a great ovation, and there was much hand-shaking and congratulation, and Yuill and the others who had to take a secondary place for this season were among the first to offer their congratulations.

The gold medal, valued at \$10, and \$30 from the Society were awarded to George Macvicar.

In Class II, walking plow competition, the honors were carried off by Alex. Brydon, son of Mr. John Brydon, of the Plains, one of the most genial of the old pioneers. He was awarded the silver medal, donated by Mr. A. H. McIntyre, and \$16 from the Society for a capital bit of plowing against strong competition.

The subjoined score card will show the points made throughout the match, the names of the prizemen, and the class of plows that they handled. Dr. Cowan, with his usual kindness, provided a substantial lunch for the plowmen, the committee, judges, and the visitors, and his kindness was thoroughly appreciated by all.

The committee in charge of the arrangements consisted of Messrs. T. E. Wallace, T. Sissons, F. Brydon, J. Thompson, R. McCowan, D. Macvicar, Sec., and the splendid success of the match is due to their untiring labors and the hearty and cordial financial support of the business firms of Portage la Prairie, and the farmers of the Plains.

D. McV.

**QUESTIONS AND ANSWERS.**

1st.—Questions asked by bona fide subscribers to the "Farmer's Advocate" are answered in this department free.

2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.

3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.

4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

**Veterinary.**

**SWOLLEN KNEES (HOCKS).**

Could you tell me what to do with a colt with the knees of the hind legs swollen? He is a year old. Two months ago he ran a sharp stick into his foot and was lame for about a week. Now is not lame, but is a little stiff on hind legs and knees are swollen. J. P. Somerset, Man.

Ans.—If the swelling of the hocks be what is usually termed bogginess, without lameness, it will be likely to gradually disappear as the colt becomes older, without any special treatment. As there is a little stiffness observable, I would advise you to rub well with the following liniment once daily for ten days: soap liniment, 5 ounces; tincture of cantharides, 3 ounces; tincture of opium, 2 ounces; mix.



BOW RIVER FALLS, KANANASKIS, ALBERTA.

**Treherne Plowing Match.**

A plowing match was held on June 18th, on the farm of R. H. Staples, under the auspices of the Treherne Agricultural Society. The weather being very unfavorable, there was not as large an attendance as would otherwise have been the case. Following were the prizewinners: Gangs, men's class—1, J. Granger, Gangs, boys' class—1, H. Barkwell; 2, A. Perrie. Walking plows, men's class—1, A. McLachlan; 2, J. Stephenson; 3, J. Ralph.

**STRANGLES.**

I have three yearling colts that are very bad with strangles, and some of the horses appear to be taking it. 1. Would like to know if there is any treatment that will cure this disease, or must it run its course? 2. If horses have it once, do they ever take it again? 3. What is the best instrument for castrating colts, and where may it be obtained? J. W. Hartney, Man.

Ans.—1. The stabling of animals suffering from strangles should be roomy, clean, well lighted, well ventilated and free from drafts. The food should be light, nutritive and easily digested, i. e., a moderate ration of warm bran mash morning and evening, and an equally moderate ration of boiled wheat, or other boiled grain, at noon. The drinking water should always be clean, fresh and not too cold. The internal medical treatment consists in the administration of four ounces liquor acetate of ammonia, morning and night, and at noon give two drams nitrate of potassium and one dram chlorate of potassium. The medicine may be all given in drinking water. If, as is often the case, there are indications of sore throat accompanied by a profuse nasal discharge, the inhalation three or four times daily for a period of fifteen or twenty minutes of steam from a quantity of very hot water, containing two tablespoonfuls of creolin to half a pailful of water will be found very beneficial. In cases where much irritation of the throat is manifested, the application of mustard or a stimulating liniment will often give relief. When abscesses form in the space between the jaws or in the region of the throat, hot fomentations and poultices are useful in bringing them quickly to a head.

2. Horses that have had strangles may take it again, but in mild form.

3. The emasculator, to be had of Hausman & Pears, Chicago, Ill. Price, \$10.00.

SCORE CARD OF THE PORTAGE LA PRAIRIE PLOWING MATCH.

Name and Position.	Straightness. 15	Feeling. 15	Depth and Width of Furrow. 15	Evenness of Surface. 10	Finishing. 15	Covering Weeds and Stubble. 20	Total. 100	Class of Plow.
<b>CLASS I.—WALKING PLOWS (14 in.)</b>								
1st—David Little, Portage la Prairie, .....	8	12	7	13	9	10	72	Verity (M. H.)
2nd—Jas. Campbell, Portage la Prairie, .....	11	6	9	12	9	10	71	Canton Clipper.
3rd—John Stott, Brandon, .....	9	9	7	12	8	12	70	Verity (M. H.)
4th—William Guild, Kenney, .....	10	8	5	12	8	12	69	Canton Clipper.
<b>CLASS II.—WALKING PLOWS (restricted to those who have not taken a first prize.)</b>								
1st—Alex. Brydon, .....	13	12	5	9	9	11	71	Verity.
2nd—Fred Smith, .....	12	9	4	10	8	11	67	Canton Clipper.
3rd—R. Tucker, .....	11	10	6	10	8	10	65	Cockshutt.
4th—John Catibbert, .....	13	9	5	9	8	9	63	Cockshutt.
5th—Will Jardine, .....	12	8	6	9	8	9	62	Verity.
<b>CLASS III.—BOYS' WALKING PLOWS.</b>								
1st—William Dow, .....	12	12	8	11	8	13	79	Canton Clipper.
2nd—James Dow, .....	10	10	7	12	9	12	70	Verity.
<b>CLASS IV.—MEN'S GANGS.</b>								
1st—George Macvicar, .....	12	14	9	11	6	15	82	Verity (M. H.)
2nd—Tom Yuill, .....	12	12	7	13	7	15	79	Verity (M. H.)
3rd—Dick Henderson, .....	8	11	6	5	9	5	61	Jno. Deere.
<b>CLASS V.—BOYS' GANGS.</b>								
1st—James McMaster, .....	8	6	8	13	5	8	68	Verity.
2nd—Tom Carroll, .....	7	5	7	10	4	6	61	Canton Clipper.
3rd—Roy McMaster, .....	7	4	7	13	4	6	61	Jno. Deere.
4th—Wallace Grey, .....	8	4	7	13	3	10	65	Verity.
5th—Lewellyn Ingram, .....	9	5	8	10	5	9	61	Verity.



**TROUBLE IN HORSES, CATTLE AND PIGS.**

1. I have nineteen spring pigs. About weaning time their ears turned red. The skin is all turning that way. They have been running out since they were weaned. They root at each other and scratch against the fence, etc.

2. The sheath of a thirteen-year-old horse swells when he stands in the stable for a few days.

3. I turned a sow out when her litter was four weeks old. She became so crippled in an hour that I had to help her in. She has been down for two months.

4. Cow had her teat torn in to the milk duct. It all healed but an opening about the size of a lead pencil, through which milk escapes.

J. A.

Ans.—1. The pigs have a skin disease. Isolate all affected. Purge them with 6 ozs. Epsom salts to each pig. Feed a little sulphur daily in their food and dress them twice daily with creolin, 1 part; water, 40 parts.

2. Give him a purgative of 8 drs. aloes and 2 drs. ginger. As soon as his bowels become normal, give 1 dr. iodide of potassium night and morning in damp food for three weeks; then stop for a week and repeat. When idle, reduce his grain ration.

3. Your sow has partial paralysis. Give her a purgative of 8 ozs. raw linseed oil. If this does not purge, repeat in 22 hours. Follow with ½-dr. doses nux vomica three times daily. Feed her on easily-digested food, with a liberal supply of grass.

4. You cannot do anything for the cow until she becomes dry. Then cast and secure her. Scarify the edges of the opening until they bleed and then sew with carbolized catgut sutures. Dress daily with a two-per-cent. carbolic lotion until healed.

**ABORTION IN MARE.**

My mare, aged 14, lost her foal last September, about three months after conception. I know of no cause for the accident. Is there a form of infectious abortion affecting mares the same as cows? Would it be safe to breed her again?

H. B.

Ans.—Infectious abortion seldom occurs among mares. I have never known of an outbreak in this country. Yours was doubtless accidental abortion, which may have been caused by slipping, falling, being kicked, jammed in doorway, or from a foul odor, nervous excitement, etc., etc., any of which may have occurred without your knowledge. Mares may abort at any period of pregnancy without appreciable cause. They very readily acquire the habit; that is, a mare that aborts once is liable to do so again at about the same period without cause. I would advise you to breed your mare again. At about three months, the period of former abortion, watch her closely, feed lightly on easily-digested food, avoid heavy work and excitement. If she show any nervous excitement or present any symptoms of approaching abortion, give her 2 ozs. laudanum in a half pint of water, put her in a comfortable box stall and keep as quiet as possible. If necessary, repeat the laudanum in 1½ hours, and again, if necessary. It is probable you will not need to treat her, but if so, the treatment will in all probability be successful, and if you succeed in getting her past this critical period she will carry her foal to the full period.

**BRAIN TROUBLE IN CALVES.**

I have lost two calves which showed the following symptoms: First look around at their flanks, and shiver; foam at the mouth, and bellow. They are fevered, and take no notice of anything. They constantly turn around in a circle, do not lie down, and die in about an hour after the first symptoms.

G. S.

Ans.—Your calves died from pressure upon the brain. It would require a post-mortem to determine what caused the compression. It may have been tumors, and may have been congestion of the vessels from digestive derangement. It is not probable that treatment would be successful. Treatment should consist in bleeding, purging, and applying pounded ice to the head. If tumors be present, treatment would be useless. I would advise you to purge the calves that are left with raw linseed oil, 4 to 12 ozs., according to size of calf, and change the pastures, as it is possible there may be some indigestible weed in the pasture that causes the trouble.

**ECZEMA.**

About four weeks ago my mare's hind quarters, hips and fetlocks became covered with boils. The rest of the body is becoming affected. There is no discharge, but they are sore on pressure.

D. L. McM.

Ans.—Your mare has eczema, due to an alteration in the blood. Give her a purgative of 8 drs. aloes and 1 dr. ginger. Feed bran only for twelve hours before giving the physic and until purgation commences. After the bowels regain their normal condition give 2 ozs. Fowler's Solution of Arsenic three times daily. Dress the affected parts twice daily with corrosive sublimate, 15 grs. to a quart of water.

**FATAL HEMORRHAGE.**

On June 4th I had a thirteen-months-old colt castrated by a veterinarian. The operation was performed about 2 p. m. At six I noticed that he was bleeding a stream about the size of a lead pencil; was almost constant. One side of the scrotum was considerably swollen. I plugged the wound with batting, but it only checked the blood for awhile. I then sent for the veterinarian. He arrived about midnight and cut the cord off above the clam with an ecraseur. The bleeding soon stopped, but commenced again about six next morning. I again sent for the veterinarian. At nine the colt fell down. The veterinarian arrived in a few minutes. He sewed it up and said he would not bleed any more. However, he bled a little and died next morning. I skinned him and he was as white as snow. The veterinarian cut him open and found about two pailfuls of blood in the abdominal cavity.

C. W. C.

Ans.—The coats of the spermatic artery were diseased and weak. No person can have any reason to suspect this condition before operating. The clam applied to the cord prevented the escape of blood through the end of the vessel, but the coats of the vessel were not strong enough to resist the pressure of the blood within it, and they ruptured. The same took place after the second operation, in which the ecraseur was used. When the cavity was closed and the wound stitched up, the blood could not escape through the external opening, although it was escaping from the cord. The consequence was, when the cavity became full the blood was forced upwards through the opening through which the cord passes (called the inguinal canal) into the abdominal cavity; hence the amount of blood found there after death.

remove a wart as you mention, is to cut it off with a very sharp knife and sear the part with an iron at red heat, from which the scales have been removed. To do this it may be necessary to secure the limb, either by throwing the horse or in any more simple way that may suggest itself.

**Miscellaneous.**

**WEIGHT OF LIME INSURANCE AGAINST WIND.**

1. What is the standard weight of stone or unslacked lime per bushel?

2. Is there any insurance company that insures against wind? If the building be destroyed by wind, would it have to be especially mentioned in the policy?

L. B. E. DILLMAN.

Ans.—1. The standard weight of unslacked lime is seventy pounds per bushel.

2. There are no insurance companies in Ontario, nor, as far as we know, elsewhere in Canada, that have license to insure against destruction by wind.

**MATERIAL FOR WALLS AND FLOORS.**

Will you kindly let me know, through your paper, which is the best material to build walls with, brick, stone, or cement: (1) of a cow stable; (2) of a horse stable; (3) of a sheep pen; (4) of a pigpen; (5) of a root cellar; and the best material of the above to make floors?

H. IRVING.

Ans.—For durability, strength and economy of construction (where the requisite gravel, stone and sand are available), we know of no material equal to cement concrete for cow stable, horse stable or root cellar walls. Properly finished, they present a very substantial appearance also. A brick wall in contact with the earth is not to be recommended at all. A leading farmer and subscriber to the "Farmer's Advocate," who last winter had a thorough test of cement and brick walls, side by side, found the former decidedly drier, showing less frost inside in very cold weather. He says he would build no more brick walls under barns. For sheep or pig pens we prefer a foundation of cement concrete, extending say one foot above ground, and after that there is probably nothing equal to double boards with building or tar paper between. With regard to floors, nothing equals cement concrete for cattle. It is sanitary, durable, easily cleaned, saves manure and is also economical in construction. The manure gutter and underneath the stalls and mangers of horse stables should be laid of cement concrete, but over

the latter, where the horses stand, should be placed planks, as nearly all horses, if shod, will pound holes in concrete. As the planks wear out, others can be laid down. Properly drained and kept dry, earth is the best and cheapest floor for sheep. A pigpen should be first floored throughout with cement concrete, with boards laid in one corner for a sleeping place, or an elevated sleeping berth such as has been several times described in the "Farmer's Advocate." (See Feb. 20th issue, 1902, page 120.) If on the score of cleanliness and protection against rats, etc., burrowing, a floor is desired in the root cellar, cement concrete is the best material to use.

**COLT SUCKING OVERHEATED MARE MILKING BY HAND—TEMPERATURE OF UDDER AND VEINS.**

1. Should a colt be allowed to suck while its dam is very warm? 2. Should the dam be first milked by hand? If so, why? 3. Is the milk warmer in the udder than in the veins? W. C. H.

Ans.—1. It would be unwise to allow a colt to suck any great quantity of milk from its dam while the latter is very warm. The filling of the stomach with milk several degrees warmer than the rest of the body is apt to cause serious and sometimes fatal results in young colts.

2. The only advantage in milking the dam is that less is left for the colt, and, also, while doing so the mare is being eased and her temperature falls.

3. The milk in the udder is no warmer than in the veins nor than the blood in any part of the body.



**CHAMPION LINCOLN EWE**

At the Pan-American Exposition, and at the International Exhibition, Chicago, in 1900 and 1901, each time beating the English Royal winners.

BRED, FED AND EXHIBITED BY J. T. GIBSON, DENFIELD, ONT. (SEE GOSSIP, PAGE 530.)

Conditions of this nature are occasionally met with. Your veterinarian did all that could be done. Where there is such a delicate condition of the coats of the artery nothing can be done, as the vessel will rupture above the obstruction, whether that obstruction be a clean ligature, seared end or where the cord has been severed with an ecraseur or emasculator.

**TONGUE LOLLER.**

My horse constantly sticks his tongue out?

W. B. F.

Ans.—Tongue-rolling is a habit, and the only way to prevent it is to use a bit especially constructed for the purpose. A bit of this kind can be procured at any well-equipped harness shop.

**MUST HAVE NAME.**

Although at the head of this department it is distinctly stated in every issue of the paper that every enquiry must "be accompanied by the full name and address of the writer," we are continually in receipt of enquiries either by a nom de plume alone or without any signature whatever. We have just to hand an enquiry regarding a colt with a curb from "Subscriber, Brandon," with no name attached. If "Subscriber" will send in his name we will be pleased to have the query answered.

**WART.**

I have a horse with a very large wart on front foot as large as a hen egg. What can be done to take it off?

SUBSCRIBER.

Cardston, Alta.

Ans.—The quickest and most effectual way to

**POWER FOR GRANARY ELEVATOR.**

I am building a good-sized stone granary this summer and would like to have your advice regarding the best power to elevate the grain to the top of the building, and also to chop feed. Do you think a windmill would be satisfactory for this purpose? If not, what power would you recommend?  
J. H.

Ans.—We find a windmill very satisfactory for the purpose of pumping water and grinding feed, but I fear that the power is not sufficiently reliable for elevating grain. We have tested both the tread-power and sweep-power machines, and prefer the latter. Our present sweep power is either for four or six horses, and has proven very satisfactory and should prove suitable for both elevating and crushing grain. S. A. BEDFORD.  
Brandon Experimental Farm.

**ONION MAGGOTS—POTATO SCAB—ASPARAGUS CULTURE BREEDING SOW—SWEENEY.**

1. Is there any remedy to destroy small white grubs from eating onions sown from the black seed? 2. Will a good uniform-sized seed potato, because it is scabby, produce potatoes of the same kind? 3. What is the proper way to cultivate and grow asparagus? 4. How long after farrowing is a sow in proper condition for male service? Some say in three days; is that too soon? 5. Is there a cure for sweeny in horse? If so, how can it be done?  
W. B. TABER.

Ans.—1. The onion maggot may be kept in check by pulling up all affected plants and destroying insects found thereon. Where onions are grown in small lots, sand soaked with kerosene, in the proportion of one pail of the former to one cup of the latter, is very useful if placed along the rows near the base of the plants. Do not sow onions on the same plot two years in succession.

2. Potato scab is a fungous disease, and where the seed is not treated to destroy it, the infection is almost certain to be transmitted to the next crop.

3. Asparagus should be planted in well-drained soil. It can be grown from the seed, but requires about three years before a crop can be harvested. In a farm garden the best plan is to plant the roots in rows three feet apart each way and about six inches deep, covering gradually as the young shoots come up. Before any plants are put down, the soil should be well manured and thoroughly cultivated. For the first year after planting, nearly all the cultivation may be done with a horse and scuffer. Some hand-hoeing may be necessary. In autumn the tops should be about three feet high; and when dead should be cut off and the land plowed to a depth of three inches and well cultivated, as though no crop were in the ground. In spring the land should be again well worked to warm it up quickly. In after years the treatment should be much the same as that outlined, except that after the season of cutting is over in June, the land should have a shallow plowing, followed by the harrow. If manure is to be applied it should be placed in the soil at this time. Any shoots which come up after this should be allowed to grow up and seed, while at the same time the root will be storing up plant-food. These can be broken off late in the fall and cultivation continue as before described. A limited amount of cuttings may be taken the second season, but if none be removed until the third year, a fuller development of root will take place. When roots are large enough to allow constant removal of the shoots, cutting should be carried on systematically.

4. Although sows will sometimes accept male service the third day after farrowing, it is not good practice to allow them to do so. Fetal development, if carried on for many weeks in conjunction with the production of sufficient milk to support a litter of pigs, would be too great a strain on the mother. With full-grown sows, three weeks is soon enough to breed, and with those not mature, two or three months' rest is sometimes advisable.

5. In most cases sweeny can be cured by long rest and continued blistering of the parts affected. A good blister is composed of one dram of powdered cantharides mixed with an ounce of lard. Clip the hair off and rub blister well in; in 24 hours rub well again, and in 24 hours longer wash off and apply a little lard every day until the scales come off. Blister every three weeks and rest the mare until the muscles regain their normal condition. During the early stages the swelling should be regularly bathed with warm water, and the blister, as described, should not be applied until atrophy begins.

**TROUBLE OVER FENCED TRAILS.**

An unimproved farm, near town, through which the public have travelled on a dry trail these nine or ten years past, has recently been fenced with three strands of barb wire. The proprietor refused to leave gates on the trail. This trail is the only dry road the settlers have, as the Government has neglected to fix up the roads on the regular road allowances. 1. Can the owner of this farm lawfully close such a road? 2. Could he prosecute parties for opening fence and going through? The fence has no top rail.  
A. M.

Prince Albert.

Ans.—See page 426, June 5th issue of the "Advocate," relating to the fence laws of the N.-W.T.

**VALUE OF GLUTEN MEAL, CORN AND SHORTS FOR FEED.**

Can you give me the feeding value of gluten meal as compared with shorts and corn meal? The prices per 100 we pay here are: Shorts, \$1.25; corn meal, \$1.60; and gluten meal, \$1.20. Will gluten meal take the place of corn meal as food for pigs and hens? Both seem to like it?  
C. W. BEAVEN.

Ans.—If fed alone, it would be difficult to compare gluten meal with shorts and corn meal. These feeding stuffs differ so in composition and in their function as flesh, fat or bone formers, that a comparison on a money-value basis is impracticable. Neither have any experiments comparing these feeds been carried on. Gluten meal has a very narrow nutritive ratio—i. e., the amount of proteids is large as compared with carbohydrates and fat. Shorts comes next and corn last, their ratios being 2.8, 4.7, and 10, respectively. Gluten meal is, therefore, a valuable food for balancing up a ration high in carbohydrates or fat. To feed it alone in large quantities, owing to its low content of ash or bone-forming material, would be poor economy. However, considering the price of each, as stated, a large amount, even up to fifty per cent., might be safely mixed with corn and profitable returns obtained. Neither corn nor gluten meal can be profitably fed alone to growing pigs. The former is too great a fat-former and the latter, as stated, lacks in those bone-forming materials which are so essential in a ration for growing stock. With hens the results would be somewhat different. As an egg-producer or fattening food, gluten meal might give results equal to those of corn, but, as before stated, no experiments have been reported.

**FARM GOSSIP.****Notes on the Implement Trade.****THE MASSEY-HARRIS CO., LTD.**

On the south-east corner of Princess and William streets is located the large three-story office and showrooms of the above company. Realizing great possibilities in the West for the development of the implement industry, this enterprising company have established a branch business for that purpose. To their manager, Mr. R. H. Agur, is due a great measure of the success this company have attained in the western trade. In their sample-rooms one sees what is perhaps the most complete display of farm implements shown in the West. Their celebrated wide-open binders have achieved a most universal success among the farmers of Manitoba and the Territories. The claim which they make for the superiority of these binders is borne out by the large demand which they are constantly receiving for them. Manufacturing their own goods, this company is in a position to give to its patrons an implement at a comparatively low cost. The patrons of such a company as this also have the advantages of the experience of men who are first in their class, and implements, the best that money and skill can produce is one of the results attained by the policy they have followed in the manufacture and sale of their line of goods. A glimpse at their large warehouses in this city would convince the most skeptical that the statement that they can supply the farmer with anything from a hoe to a threshing machine is founded on fact. "Massey-Harris" is a household word in all the farmers' homes in Western Canada.

**JOSEPH MAW & CO.**

A pioneer in the implement and vehicle business is the firm of Joseph Maw & Co., whose large and commodious showroom and offices are located at the corner of William and King streets. Here one finds a line of buggies and vehicles which should certainly delight the most fastidious purchaser. Road wagons, platform wagons, buggies for pleasure and for business, traps, park wagons, Stanhopes, Gladstones, and Surreys are most artistically arranged and shown to prospective purchasers. Mr. Maw is also the pioneer in the disk-plow business, having introduced the Maw-Thuncock disk plow in this territory, the first of its kind to be introduced in Western Canada. The large measure of success which this company are enjoying in the disk-plow business goes more than anything else to show the quality of goods they handle in this line.

**McLAUGHLIN CARRIAGE CO.**

A splendidly artistic display of buggies and vehicles, indeed, is found in the showroom of this company at 141 Princess St. Mr. R. McKenzie, who conducts the business of this company at Winnipeg, has certainly spared no trouble or expense in making his

showroom a very attractive place for prospective purchasers in his line. Besides a very complete line of Surreys, Gladstones, Stanhopes, etc., they have recently added a very fine line of pony vehicles. They also handle a full line of Thomas goods, which includes disk harrows, haymaking machinery, lawnmowers and pumps. They also handle the celebrated Speight wagons, which have achieved for this company a marked degree of success.

**CANADIAN MOLINE PLOW CO.**

The office and showroom of this company is located at 148 Princess street. Their business is under the able and efficient management of Mr. J. J. Bugge, a pioneer in the implement and vehicle business. To give a full list of the different articles manufactured and sold by this enterprising company would include everything which goes to make farming of to-day a decided pleasure. Sulky and gang plows, walking plows, breaking plows, disk and lever harrows, iron harrows, wood harrows and cultivators are among the different implements which are artistically displayed in their showrooms. They are also handling the celebrated Fish Bros. wagons, which are manufactured at Racine, Wis. The Mante farm and bush sleighs, the Tudhope buggies of all kinds, are among the various implements sold by this company.

**THE BALFOUR IMPLEMENT CO.**

On Market Square, at the corner of Princess and William streets, is located the office and showroom of the Balfour Implement Co. This concern is managed by Mr. J. D. Balfour, and has been doing business in Manitoba and the Territories for the past four years. Although but a comparatively short time in the business, the success which this company has had is a sufficient guarantee that the implements they handle are of the best. Among the different lines sold by this company are: The J. I. Case plows and harrows, which are manufactured at Racine, Wisconsin; the "Triumph" sulky and gang plows, which the manufacturers claim are celebrated for their lightness of draft, simplicity of construction and operation, and durability, are some of the trade-winners which they sell. They also handle the Woodstock wagons and farm sleighs, which have already achieved a high market standard. They are also agents for Manitoba and the Territories for the Ontario Wind Engine & Pump Co., of Toronto, who manufacture the well-known lines of windmills, steel towers, grain crushers, wood saws and pumps. In addition to the above lines, they also handle the Dowagiac shoe and disk drills, which are manufactured at Dowagiac, Michigan, and the Fountain City grain and seed drills, which are manufactured at LaCrosse, Wisconsin. A constant attention to the requirements of the implement trade in the West has built for this firm an extensive business in their line.

**COCKSHUTT PLOW CO.**

The Winnipeg branch of this company is located at 154 Princess street, and is under the management of Mr. A. E. Mott, whose genial manners and courteous treatment of his customers have made this company very popular in the West. In their large factories, which are located at Brantford, Canada, is manufactured everything in the plow line. In addition to this, they also manufacture a line of single and double disk drills, shoe drills and seeders. The Newell-Sanders disk plow is also among the lines carried at the Winnipeg branch and agencies throughout the West. In their large showroom is displayed a large line of small implements, including machines for sharpening all kinds of farm tools, grain crushers, straw cutters, etc. They also sell the Gould, Shapley & Muir windmills, both geared and pumping windmills, steel towers, pumps, etc. Also, wagons and farm trucks, farm sleighs, horse-powers and power-transmitting machinery. These goods are worthy of a close inspection by dealers who desire anything in their line.

**THE JOHN WATSON MFG. CO., LIMITED.**

whose office is located at 134 Princess St., is a branch of this old-established firm, whose headquarters are at Ayr, Ontario. The business was established at Ayr by John Watson in 1847, and is the oldest house in Canada making farm implements. Mr. John Watson, at the age of 89, is still hale and hearty, and takes an interest in every move of the business which has grown from his small beginning. The Manitoba branch has been under the direction of Mr. Archie G. Watson for the past few years. This firm make and handle what are known as the smaller lines of goods used on the farm, including: Farm and bush sleighs, with both steel and oak shoules; feed cutters, in several sizes and styles; grain grinders; harrows, in wood and steel; wood saws; pumps; flexible pulverizers; wheelbarrows; rollers; Lofe grinders, oveners, etc., etc. Manufacturing their own goods, this company are in a position to do as well by their patrons as any firm in the trade, and by handling their own goods, using their own tools in their manufacture, and making every endeavor to keep their goods up-to-date in all particulars, they have built up a nice business, which is the result of a steady and satisfactory increase of their trade. In addition to the goods that they manufacture, they are the western selling agents for the Grand Rapids Plow Co., of Dixon, Ill., and also for the Ontario Wind Engine & Pump Co., of the same place. It is a pleasure to find that in the introductory stages of their business, the highest satisfaction were introduced, and that the goods are of a high and careful inspection.



WM. FERGUSON.

President Western Agriculture and Arts Association of Manitoba and of Brandon Fair.

**Reader, Attention!!!**

For the benefit of non-subscribers we publish herewith the opinion of a few of our readers, which have voluntarily been sent to us among a host of others. It is the policy of the publishers of the "Farmer's Advocate" to give to its many admirers the most up-to-date and reliable information on agricultural topics that can be obtained, regardless of cost. As a result, readers fully appreciate the exertions of the staff in publishing, through the columns of our paper, articles containing invaluable information.

**RECOMMENDS TO THE GOVERNMENT FOR IMMIGRATION PURPOSES.**

Aetna, Pa., June 4th, 1902.

"Farmer's Advocate":

Dear Sirs.—Many thanks for copy of the "Farmer's Advocate." After perusal, I have handed it over to another family, who intend moving to Western Canada next spring.

It is needless to say that it is a really excellent paper. I thoroughly enjoyed reading it. Its illustrations are good, its reading matter instructive and interesting, its advertisements are elaborate and attractive, and I believe that if the Interior Department of the Dominion Government were to use it along with its pamphlets of general information, it would undoubtedly be the means of bringing many of the best class of settlers into Western Canada, where such fine animals as the illustrations set forth can be raised with less trouble and expense than anywhere else, probably, in the world. Its pages are instructive to the novice in farming, and all information regarding every department of farm work can be had through its columns. Its advertisements of all kinds of farming and dairy machinery show that all labor on the farm can be reduced to a minimum, and many who have seen the hard and profitless work on the farms in the Old Country will find, through its pages, that in Manitoba and the Northwest Territories more work can be done with ease and more profit than on the farms of the Old Sod that will hardly pay their rent.

Yours truly,

J. C. MINTO.

June 6th, 1902.

**SHOULD BE IN EVERY HOME.**

George Anderson, Kenlis, Assa., June 12th, 1902: "I think your paper should be in every farmer's home."

**A FAMILY PAPER.**

John Aikenhead, Hartney, Man., June 12th, 1902: "Our family like your paper. It does us all good to read its pages. When we read such papers we feel we live in a goodly land, even if it does not flow with milk and honey."

**"THE BEST THAT IS."**

S. C. Archibald, Innisfail, Alta., June 3rd, 1902: "Your paper is the best farm journal in the West."

**THE PAPER FOR THE FARMER.**

H. G. Carruthers, Shoal Lake, Man., June, 1902: "I am highly pleased with the paper. It is indeed the paper for the farmer."

**OF VALUE TO THE HOUSEWIFE.**

E. Jordan, Basken, Kimbrae, Assa., June 2nd, 1902: "Mrs. Basken enjoys using its various interesting articles very much and finds them very helpful in daily work."

**WAS IMPRESSED AT FIRST SIGHT.**

Thomas Turner, Elm Valley, Man., June 5th, 1902: "Kindly send me the 'Farmer's Advocate.' I saw the sample you sent me and will be looking for the next one to come."

**SOURCE OF INFORMATION ON CANADA.**

H. M. Williams, Canadian Government Agency, Toledo, Ohio, June 2nd, 1902: "I beg to congratulate you on the 'Farmer's Advocate.' I have read the contents of the sample you sent me and enjoyed them very much, and now feel that I am better informed of Canada's great possibilities by doing so."

**SAYS IT IS WORTH \$2.00 PER ISSUE.**

Thomas Langstord, Agassiz, B. C., June 18th, 1902: "Your paper is indeed worth \$2.00, and I would gladly give the amount for one issue alone."

**The Brandon Fair.**

Western Manitoba's big fair, to be held at Brandon on July 29th, 30th and 31st and August 1st, this year, promises to be one of the best in the history of the association. One chief reason for the great success and growth of this big annual fair is to be found in the fact that the Board of Directors is composed of some of the most energetic and progressive men in the western portion of the Province, and men who willingly give their time and attention in advancing the interest of the fair. In addition to the new buildings being constantly added, the improvement to the already fine grounds of the Association cannot fail to be noticed. A force of men is kept constantly at work, under the supervision of the Grounds Committee, and this year there has already been planted several hundred trees and shrubs, which add very much to the beauty of the place. The ever-increasing number of horses, cattle, etc., entered for exhibition testify to the importance in which breeders and owners hold this fair, attended as it is by so many farmers from all parts of the Province. While the exhibits are becoming greater and better each succeeding year, the management do not lose sight of the fact that amusement must also be provided for the large crowds attending these summer fairs, and this year those attending the Brandon Fair will spend not only a profitable but also an enjoyable time. The race track is being put in first-class shape, so that with the good class of horses in the country and large purses offered, some splendid racing will be seen. No pains have been spared to secure the best of platform attractions, and in order that none but the best would be had, a delegation visited the large American cities and were successful in securing some of the finest, among them being the Cycle Dazzle, one of the most novel and exciting feats of the day; a troupe of Japanese jugglers, performing new and wonderful feats; trick-car acrobats; burlesque comedians, trapeze artists, etc.

Those visiting this fair will have the opportunity of also visiting the Experimental Farm, which at that time of the year looks at its best and well repays a visit. With the present bright outlook, there is no doubt the fair of 1902 will be a record-breaker so far as attendance goes, and also as to the number and merit of the exhibits.

**Fair Dates.**

Dominion City.....	July 8 and 9
Calgary.....	July 9, 10, 11
Virden.....	July 14 and 15
Carberry.....	July 15 and 16
Yorkton.....	July 16 and 17
Pilot Mound.....	July 16 and 17
Wawanesa.....	July 17
Cypress River.....	July 17
Hartney.....	July 17 and 18
Minnedosa.....	July 18
Portage la Prairie.....	July 17 to 19
Winnipeg Industrial.....	July 21 to 25
Dauphin.....	July 29 and 30
Brandon, W. A. A. A.....	July 29 to Aug. 1
Neepawa.....	Aug. 5 and 6
Melita.....	Aug. 5 and 6
Souris.....	Aug. 7
Moosomin.....	Aug. 7
Regina.....	Aug. 21

**Educational Center Building.**

A building, costing an enormous sum, is to be erected at the gateway to the Union Stock Yards, Chicago. It is intended to be the headquarters for the various breeders' associations of America. In it will be found their offices, including apartments for pedigree registers, etc. The first floor is to be set apart for an agricultural museum, where representative samples of the various products of American soil may be seen. One of the most charming features of the whole structure will be a capacious reading-room and well-equipped library, open to the free use of farmers and stockmen who may have occasion to spend a leisure hour in the big city. Such enterprise on the part of the stock-yards authorities will surely be appreciated by the live-stock world.

**To Would-be Advertisers.**

We are constantly receiving compliments from advertisers as to the excellent returns from advertisements in the "Advocate." The following was received from an advertiser on June 13th, and is worthy of attention:

**PROFITABLE ADVERTISING MEDIUM.**

M. Maw, St. John's Poultry Yards, Winnipeg: "I have found my advertisement in the 'Farmer's Advocate' a very profitable investment. It brings orders from the east, west, north and south, and must have an enormous circulation. Thanking you for the careful attention you have given to my advertisement, I remain, M. MAW." June 12th, 1902.

**Building Specifications for House.**

As many farmers will be building houses this summer, we publish herewith specifications of the carpenter work and plastering for the residence of Mr. A. E. Rome, of Nesbit, which was illustrated and described in the March 20th issue of the "Farmer's Advocate." As these specifications have been carefully prepared, they will be very useful to anyone contemplating building.

The proprietor will furnish all material and deliver same at the site of the new building; but it will be expected of the contractor to reject any material unfit for use.

Anything shown on the plans and not described in the specifications, and vice versa, is to be considered the same as though both shown and described.

Particular care must be taken by the contractor of all the finished work as the building progresses, which work must be covered up and thoroughly protected from injury or defacement. During the construction of the building, the contractor shall not make any changes in the plans.

All joists to have the crowning edge placed upward and properly sized where required; also size all studding in second floor and attic joists.

**FRAME.**

The house to be full frame; all frame stayed and braced in the strongest manner, perfectly true, level and plumb. All upright framing studs must be firmly spiked to sills and plates. All joists must be properly framed into sills, bearing plates and trimmers. Veranda floors to be framed to pitch from building one-inch fall in five feet. All braces to be long as practicable, and to be of 1 x 4-in., gained flat-wise into the posts and studs, and to be securely spiked. Cross-bridge all joists at a distance not exceeding 6 inches apart. All trimmers and headers must be framed double, and in no case allow less than 1 inch between chimney-breast and trimmers. All rafters having a space of more than 14 inches, to have 2 x 4 collar beams.

Gables, dormer windows, roofs, etc., must be all properly framed according to drawings. The framing must be done with a view to prevent any great shrinkage or unusual settlement from affecting the plastering or finished work.

**PARTITIONS.**

All partitions throughout the building to be set according to the plans. Bearing partitions on first floor must foot upon the girder below and be capped on second story with plates for the reception of the joists. Bearing partitions on second floor to foot on the plate, the studs at angles to be thoroughly spiked together before being placed in position. All doors and wide windows to be trussed over the top thoroughly and substantially. All partitions to be sized to a straight edge; joists in all cases to be doubled up under all stud partitions. Grounds put on for finish throughout the building. All partitions that have not bearing walls under them to have two rows of cross-bridging; others, one row. Sliding door partition must be securely braced and trussed, and be lined with 1/2" matched sheeting on each inside of pockets, all securely nailed.

The carpenter to do all work required in the wood-work for plumber and heating contractor.

The building to be sheeted on the outside frame, with shiplap, well nailed and made ready to receive the brick veneer. Prepare the gables to receive the shingles, and finish as shown.

**ROOFS.**

Cover all the roofs, including those of all the porches, with planed boards and well nailed to every rafter. All of the rough carpentry necessary to form



ALEX. IRWIN, Manager of Brandon Fair.

the projection of eaves, as required for all cornices, gutters, etc., to be done in accordance with the plans.

#### SHINGLES.

All roofs to be covered with the best quality of shingles, laid  $4\frac{1}{2}$  to the weather. Do all necessary flashing for a complete job; all shingles to be laid on two thicknesses of tar paper.

#### CORNICES.

All cornices to be constructed in accordance with the working drawings for the same; use stock mouldings throughout. All main roofs, veranda roofs and all other roofs to be properly guttered. Make suitable crickets at back of chimneys, as shown.

Construct the veranda as shown, in accordance with the details, form all mouldings required for all cornices, etc.

Front steps shall have treads 14 inches wide, to be built of  $1\frac{1}{2} \times 2\frac{1}{2}$  strips; other outside steps 12 inches wide, as above.

#### CEILING.

Properly cover all ceilings of verandas with 4-inch V-joint ceiling, and 2-inch moulding in angle.

Construct coal bins in cellar as instructed by the owner.

#### FLOORS.

All flooring to be tongued and grooved and secret nailed. All inequalities in the flooring to be planed off at completion. All of first story to have sub-floors of dressed 1-inch boards, with pulp laid over and  $\frac{3}{8} \times 2$  furring strips on which to lay the finished floor; all other floors throughout to be laid single and matched.

Veranda floors to be laid with 4-inch Edge grained fir flooring, laid with leaded joints and the ends neatly rounded.

Door frames to be constructed according to details or requirements of the case, all of clear ma-

terials. All outside and inside door frames shall be complete, including outside casings and inside trimmings.

terials. All outside and inside door frames shall be complete, including outside casings and inside trimmings.

Screen doors and windows. Hang and properly fit screen doors for all outside doors and screen windows to all windows.

#### STORM SASH.

Fit and fasten storm sash to all windows except woodshed and main gables of house; also hang storm doors to all outside doors.

All outside and inside cellar doors required by the plans to be properly hung to strong plank-cased frames.

All doors to have  $\frac{1}{2} \times 3$ -inch hardwood carpet strips.

Put fanlight over each bedroom (except man's room); also over door from dining-room to kitchen, from kitchen to summer kitchen, and to lobby; and properly hung on pivots.

All interior work is to finish on grounds. All finish to be constructed as required by the plan and details, with good sound pine lumber (unless owner wishes to have main part in cedar), all put up with neat close joints, to be hand-smoothed and well sand-papered, and nail heads set below the surface. Turned heads to be put in all corners.

#### MAIN STAIRS.

All stairways to be built where located on plans. The main staircase to be built and supported on strong plank stringers, 4 inches, 12 tread, to be enclosed, string neatly capped and moulded. The mouldings of lower hall base to be carried along the wall string, with all requisite car-nings, etc., to head of stairs. Trim the floor around the headway with a rising cove and fillet; also cap up the headway with beaded fascia, 7x7 built oak round posts and exact upper posts, with  $1\frac{1}{2} \times 1\frac{1}{2}$  balusters, 2x2x hand-rail, etc. of same material. The triangular space under each side of stairs to be finished with panel work, the

main newel to be made high enough so that rail will run level to wall.

Trim the stairback for lath and plaster.

Stairs must be put up after the plastering is dry.

The rear, cellar and attic stairs are to be built as required by the plans, of a good quality of stock. Where posts, rails or balusters are indicated, they can be of plain or stock patterns.

Outside cellar steps to have plank steps and stringers, with post and rail at top. Finish leadways and stairback as above.

#### WAINSCOTING.

Wainscot the walls of the kitchen and lobby to the height of 3 feet above the floor. Case the walls of the rear staircase to the height of 3 feet above the strings; also wainscot the walls of the bathroom to the height of 4 feet above the floor, all of 3-inch matched and V battens, surmounted with moulded cap.

#### CLOTHES PRESSES.

Clothes presses to be fitted up with beaded cleats for the reception of wardrobe hooks; also put two rows of shelves on available sides, placed on beaded cleats.

#### PANTRY.

The pantry to be fitted up with shelves placed on all available sides, with standards, where needed, from bottom to top. Build a counter shelf, 36 inches high and 20 inches wide by  $\frac{1}{4}$  thick, and, as directed, fit up the cupboard as shown, to be enclosed below ledge with panel doors and sash doors above, to be divided in widths to suit owner; put six drawers below ledge as directed; also two flour bins to work on pivots, all to be properly fitted and trimmed and to the satisfaction of the proprietor.

Fit up the sink in kitchen, where shown, with narrow  $\frac{1}{2}$  V-joint battens, cover around the edges with

1-inch capping and  $1\frac{1}{4}$  drain board, with incline toward sink.

1-inch capping and  $1\frac{1}{4}$  drain board, with incline toward sink.

Make and put up a dumb-waiter where shown from the first floor to basement, and leave same in a perfect working state.

The outside wall of building is to be strapped inside or top of the first coat of plaster with 1x2 strapping, nailed directly over the studs or at 16-inch centers.

All the eaves and gables are to be finished with soft-facia, freeze, bed and crown moulding, with modillions set at 24-inch centers, and to detail drawing.

#### ARCHITRAVES.

All of main part to be finished with 5-inch casing, 7-inch top piece, and moulded with base blocks only.

All of kitchen and second floor to have 5-inch E. L. casing, corner and base blocks.

The closet to be finished with plain 4-inch casing.

#### BASEBOARDS.

All of first floor to have 10-inch base; 2nd floor to have 8-inch base; closet to have plain 6-inch base.

All base, as well as all wainscoting, to have  $\frac{1}{4}$  at bottom.

Put up all necessary shelving in cellar and dairy room, as directed by the proprietor, in four rows, upon strong supports and firmly fastened to the wall.

Set all door and window frames. Finish the hips and ridges with saddle boards and ridge roll.

Finally, do all other woodwork required in the completion of the building and make good after and wait upon all other trades. Clean out the entire building for plastering, and on the final completion, broom clean.

#### LATHING AND PLASTERING.

All walls, partitions, cellars, stairbacks, etc. throughout to be lathed with best quality of lath, thoroughly seasoned and of full thickness, and

inches apart, nailed at each bearing and the joints broken every 18 inches, and under no circumstance must lath stop and form a long, straight vertical joint, nor any lath put on vertically to finish out to corners or angles, and should any stud or furring strip be found not properly secured, stop and notify the carpenter to make good the same.

All the outside walls to be lathed and back-plastered, and to have 1x2 furring strips, with  $\frac{1}{2}$ -inch finished plastering on the inside.

The mortar to be composed of pure unslacked lime and clean sharp sand, free from loam, and best long cattle hair, properly made up and thoroughly incorporated together, and stacked in heaps at least eight days before using, to be put on with sufficient force to insure strong clenches.

All rooms, halls, etc., to be plastered in the best three-coat work, leveled, floated (grounds,  $\frac{1}{2}$ -inch), and made true to all points and finished with a hard white coat, composed of lime, putty and plaster of Paris, mixed in equal parts, laid to the proper thickness and troweled to a true and even surface. Care must be exercised to avoid laps and discolored places.

The lathing and one coat of plaster to extend down to the floor, behind all baseboards and wainscoting.

All walls to be straight and plumb, and all angles to be maintained sharp and regular.

Do all mending and repairs, after other trades, leaving the whole in a perfect and undamaged state.

On completion, clean out the entire building, leaving the rooms, etc., broom clean, and thoroughly clean off the woodwork.

#### Government Examination of Seeds.

While intelligent farmers, with a fair knowledge of the seed trade, can obtain high-class seeds, many get their supplies in small towns or villages from local dealers who have but a limited knowledge of seeds. The result has been that those farmers who are not within easy reach of a good commercial center have experienced difficulty in securing reliable grass and clover seeds. The attention of the Department of Agriculture was directed to various grievances connected with the seed trade, and investigation has proved that there has been just ground for complaint.

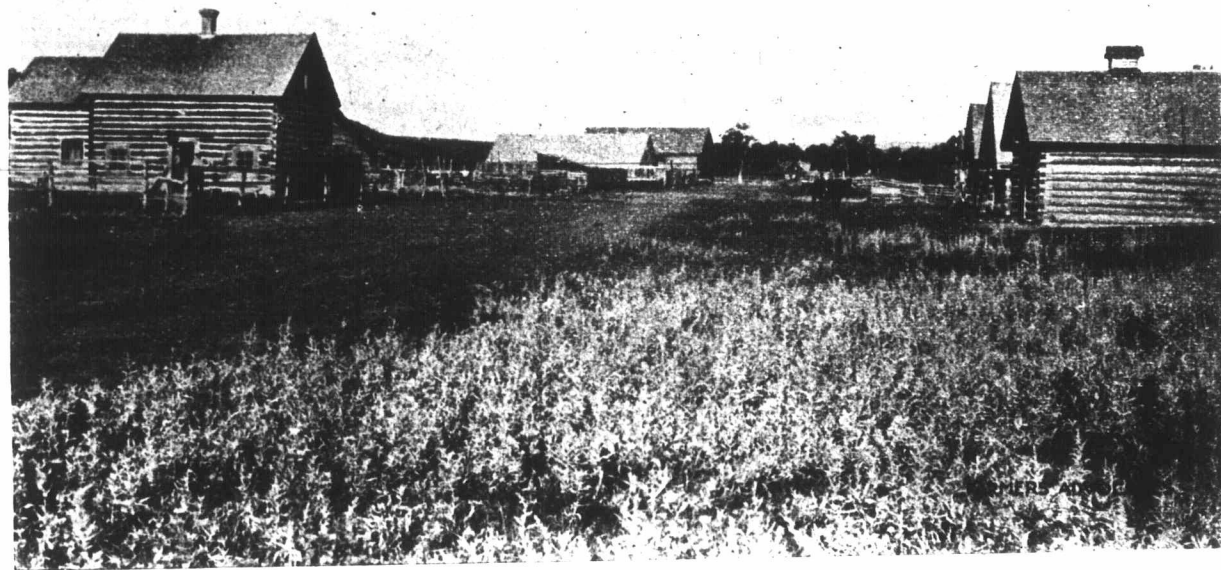
In order to secure more definite information with regard to the actual conditions of the trade in the common grass and clover seeds, arrangements were made early in the year to collect a few hundred one-half pound samples of timothy, alsike and red clover seeds that were offered for sale by local dealers. Over five hundred samples have been obtained at various points in the different provinces in Canada where such seeds find a market. The information received with each sample included the place where the sample was obtained, its origin, the price at which it was offered for sale, and the year in which it was stated to have been grown.

These samples of seeds reached the Department under a variety of names, which were intended to designate their grade or quality, but which rather served to mystify the less intelligent purchasers. Such names as Linnet, Otter, No. 66, Salmon, Elk, Prime, Pine Tree, and such like terms, have been given to seeds by wholesale seed firms, and are not in any way expressive of their real worth. They are terms which have been coined in wholesale seed houses, and are evidently intended to take the place of such terms as Grade No. 1, Grade No. 2, Grade No. 3, screenings, etc., which, if used by a seed firm bearing a good reputation, would mean a good deal to any intending purchaser.

The samples which have been collected are being analyzed for both purity and vitality. The necessary equipment for a modern seed laboratory has been secured, and the rules adopted by the Association of American Agricultural Colleges and Experiment Stations for testing seeds are being followed in detail throughout. In making a purity test, two grams of red clover and five grams of timothy and alsike seeds are carefully weighed out from each of the one-half pound samples on a precision balance, sensitive to one milligram; the impurities are separated, and the percentage of pure seed is thus obtained. The impurities are then examined and the percentage by weight of weed seeds determined; the weed seeds are identified, and the number of each kind of weed seeds in a pound of the seeds offered for sale is calculated.

To test the vitality of the seeds, four lots, containing one hundred seeds each, are indiscriminately taken from pure seed which has been thoroughly mixed for the purpose. These seeds are placed—one hundred in each group, so as to check one against the other—between folds of blotting paper and set in a Standard Seed Germinator. This germinating apparatus, specially designed for this work, is so arranged that the heat, moisture, air and light are absolutely under the control of the operator—conditions which cannot be had except by laboratory methods. The seeds are kept at a temperature best suited to their germination. After they have been in the germinator twenty-four hours, those which have sprouted are removed, counted, and the number is recorded. This operation is repeated each day for ten days. By this method not only the vitality but the vital energy of the seed is shown.

Out of thirty-five samples of red clover seed which were collected in the Province of Ontario, twelve samples contained over five per cent., by weight, of foreign seeds. These foreign seeds consist of various kinds of more or less noxious weed seeds, the most



NORTHWEST CATTLE CO.'S RANCH, PEKISKO, HIGH RIVER, ALTA.

prevalent being those of pigeon grass, rib grass, catchfly, Canada thistle, ragweed, curled-leaf dock, and sorrel, in varying proportions. As a rule, it would be expected that samples of this kind would be offered for sale at a price commensurate with their quality, but such is by no means the case. The average retail price per bushel of the ten samples which contained the largest percentage of weeds seeds was \$6.95 per bushel. The real value of these seeds cannot, however, be accurately given until the germinating tests have been completed, as seeds which are free from weed seeds have not always shown the highest percentage of vitality.

The results of the investigation thus far would indicate that there has been, comparatively, a small amount of timothy, alsike or red clover seed willfully adulterated this spring, although a number of samples which have been analyzed show a large per cent. of inert matter such as sand, broken pieces of stems, etc. Four of the samples which were secured from local dealers in Ontario contained an average of seventeen and one-half per cent. of total impurities, one of which was purchased in Renfrew at \$7.20 per bushel, and from an average of three tests showed 23.6 per cent. of total impurities.

Sixty-four samples of red clover seeds were secured from local dealers in the Province of Quebec, but the testing of these samples for purity has not as yet been completed. The results of the work thus far, however, indicate that the farmers of Quebec do not get all the screenings from the Ontario-grown seeds. The percentage of total impurities from the sixty-four samples ranged from one-fifth of one per cent.—which was obtained from a sample secured at St. Francois, and was being sold at the rate of \$6.60 per bushel—to eighteen per cent.—which was obtained from a sample received from St. Hyacinthe, and which was being sold at \$6.45 per bushel. Thirty-three per cent. of the samples of red clover seed obtained from Quebec Province contained more than five per cent. of total impurities.

The results so far include only the analysis for purity of the red clover seeds obtained from Ontario and Quebec. In examining the seeds for germinating the testing is all done in duplicate, and results will be published later on.

This seed investigation work, which is being conducted by Mr. G. H. Clark, B. S. A., has brought to light some important facts connected with the seed trade, and it is the intention of the Department to continue this work with a view to bringing out information helpful to seed growers, seed merchants, and to seed consumers, and to ascertain if the actual conditions of the seed trade in some of the more common grass and clover seeds require a system of seed control such as has been adopted in other countries.

Department of Agriculture, Ottawa.

**Canadian Boys and Girls.**

Miss Nellie Ware, Burton School, Christchurch, Hants, England, writes, saying the scholars in the Burton school are studying about Canada—107 children in that school. They wish Canadian boys and girls to write them telling all they can about this country, its schools, churches, homes, people, etc. They wish to know what games are played at school in summer and winter, subjects studied, how many holidays, description of locality, what trees grow, occupation of people, what is grown and raised on the farms, what fruit is grown, the price of land per acre to buy, to rent, what wages are paid to men servants and maid servants, the prices of all kinds of farm stock, what vehicles are used, what social pastimes are engaged in, and what countries the people come from, and what Halifax, Charlottetown, St. John, Toronto, London, Hamilton, Ottawa, Kingston, Winnipeg, Brandon, Victoria, (B. C.), Montreal and Quebec cities are like. We ask the boys and girls in all these places and in every part of Canada to write the Burton school, care of Miss Ware, and give them all the information asked for and as much more as you can think of. Please mention that you saw the request in the "Farmer's Advocate." Show this request to your teacher.

**Profitable Steer Feeding.**

Considerable interest is being taken in a phenomenal feeding record made at the farm of J. J. Hill, North Oaks. In November, 1900, forty-five steers were bought for the experiment. After commissions had been added, also the cost of dehorning, the cost of the steers at North Oaks averaged \$20.18 per animal. The steers were high-grade Shorthorns, but some had also more or less of the Hereford markings.

They were carried through the first winter on corn fodder, grown the same as corn for the silo, but fed in the dry form. There was some corn on the stalks, but not very much. No other grain was fed. In the summer the steers were pastured on blue grass, also without grain. They were fattened on-corn fodder like that fed the previous winter, but with the difference that it contained more ears. The other food was shuck corn, with some oil cake added. The steers were sold on May 5th. After deducting commissions, yardage, and cost of food in the yards, they brought an average return of \$74.10. The difference between the selling price per animal and the net cost price was \$53.92, that is to say, \$53.92 was the amount brought for keeping each steer for about eighteen months. Live-stock Record.

**Ottawa Notes.**

The officials at the Central Experimental Farm have been kept very busy looking after excursion parties from surrounding counties. On Wednesday, a large number of Americans were brought in by the Ottawa & New York Railway.

**CEMENT WALK CONSTRUCTION.**

Mr. J. Fixter, the Experimental Farm foreman, gives the following explanations of how he recently constructed a granolithic walk: "Get a good foundation and good drainage. We used plenty of coarse stone in the bottom. 1st layer, 18 inches of coarse stone; 2nd layer, 12 barrows of stone, 4 barrows of sand and 1 barrel of cement; 3rd layer, 2 barrows of sand, 1 barrel of cement and 4 barrows of crushed stone. For the top layer, sand and cement, half and half. The stone should be washed well before the cement is put on them. Mix the cement thoroughly on a board with the sand dry, and then mix with water and crushed stone."

**WESTERN PROSPECTS.**

Prof. Grisdale, agriculturist for the Dominion Experimental Farms, who returned from a western trip, says that there is a very promising outlook for crops in Manitoba and the Northwest. There is also a great increase in the area under cultivation in Manitoba. In the Northwest, where many new settlers have gone, there will be an increase in the wheat crop. On account of continued rains, sowing was late in the eastern districts and farmers only finished seeding about the first of June.

**Milk Reform.**

Owing to the very high death rate among the children of the lower classes in Chicago, the Board of Health of that great city have decided to take measures whereby the poor are to be supplied with pure milk at a price within the reach of all. One thousand bottles will be prepared and sent out daily from the science-room of the Northern University. The milk which was being bought by these people has been found to be highly adulterated. Out of twenty-four cans examined, six contained formalin and eleven more had been skimmed and watered.

**Montreal Markets.**

Montreal, June 26—About 300 butchers' cattle, 400 calves and 300 sheep and lambs offered. No prime cattle offered and only a few that could be styled pretty good, the others being common and some of them rather lean. A few of the best cattle sold at from 4 1/2c. to 5c. per lb., but there were not many sales at over 4c., while much the larger number were sold at from 3c. to 3 1/2c. per lb. Canners paid from 2 1/2c. to 3c. Calves were plentiful and lower in price, selling at from \$2.50 to \$8 each; only a few brought over \$5. Shippers paid 8 1/2c. per lb. for good large sheep and the butchers paid from 3c. to near 4c. per lb. for their supplies. Lambs sold at from \$2.50 to \$4 each. Fat hogs sold at from 6 1/2c. to 6 3/4c. per lb. for good lots weighed off the cars.



LUNCH IS NOW READY.

**SEED GRAIN COMPETITION.**

The work of the McDonald Seed Grain Competition is progressing rapidly under the supervision of Mr. G. H. Clark, B. A., Chief of the Seed Division, Department of Agriculture, and his able staff of assistants. The results are fully up to the expectations of the promoters. When the competition was started, 1,500 competitors entered, but many of them have dropped out of the race for the prize, for various reasons, and at the present time there are only about 800 boys and girls who are operating the seed-grain plots for the third year. These plots are distributed all over the Dominion of Canada. While the seed-grain competition will not continue after the present year, it is expected that the work which is being done by the competitors and the idea which they will get from this work will be carried on in the rural school districts of the Dominion.

**MAY VISIT SOUTH AFRICA.**

Prof. Jas. W. Robertson, Canadian Commissioner of Agriculture, has left on a trip to the Maritime Provinces. He is at present in communication with Lord Milner with a view of establishing Experimental Farms in South Africa. He may be called upon to make a special report on its agricultural conditions and prospects.

**MR. MURRAY'S APPOINTMENT.**

Mr. J. Murray, B. S. A., who recently graduated from the Ontario Agricultural College at Guelph, has secured a position as assistant to Mr. G. H. Clark, of the Seed Division of the Department of Agriculture. Mr. Murray is a son of Mr. Robt. Murray, a prominent farmer of Simcoe County, Ont., and took a four-year course at the College. He graduated with honors and specialized in agriculture.

**Swift & Co.'s Stock Yards Damaged.**

Chicago, July 6.—By a fire which broke out in their plant at the stock yards to-night, Swift & Co. suffered a loss estimated by the company at \$500,000. The structure was four stories high, built of brick, and was 300 feet square. The first floor was occupied by the wholesale meat market of the company, the second by the shipping department, and the third and fourth by the general offices. The latter are said to have been the largest single offices in the United States, more than 800 employes working on one of the floors in a single room. The cause of the fire is not known, but it was discovered near the engine room.

**Chicago Markets.**

Chicago, July 5.—Cattle—Good to prime steers, \$7.75 to \$8.50; poor to medium, \$4.75 to \$7.50; stockers and feeders, \$2.50 to \$5; bulls, \$2.50 to \$5.50; calves, \$2.50 to \$6.30. Texas-fed steers, \$1 to \$6.75. Hogs—Mixed and butchers', \$7.20 to \$7.85; good to choice heavy, \$7.75 to \$8; rough heavy, \$7.25 to \$7.65; light, \$6.95 to \$7.50; bulk of sales, \$7.35 to \$7.75. Sheep—Good to choice wethers, \$3.50 to \$4; fair to choice mixed, \$3 to \$3.50; native lambs, \$3 to \$6.65.

**British Cattle Market.**

London, July 5.—Live cattle steady at 14 1/2c. to 14 3/4c.; refrigerated beef, 14 1/2c. to 14 3/4c. per lb.

### The Cost of the Manitoba Dairy Department.

To the Editor "Farmer's Advocate":

Your criticism, under the above heading, in your April 21st issue, shows not only total ignorance of the work of the Manitoba Dairy Department, but an acceptance of Professor Dean's letter, which appears on page 283 of the same issue, as evidence regarding "the cost of an efficient Dairy School," as if there were no reports of said Ontario Agricultural College published from year to year by which the detailed expenditure of such college might be checked against the information given in this letter. The letter is correct in so far as it goes, but you do not use it fairly. You compare the Ontario Dairy School at Guelph against the Manitoba Dairy Department. No attempt is made to ascertain whether the estimates were expended, and no explanation as to what is included or excluded in the actual expenditure in each case. The Manitoba Dairy Department "estimates" for 1901 were \$8,500.00, but the public accounts show only an expenditure of \$7,609.89. Here is an error on your part of \$890.11. I notice that Mr. Dean gives only "salaries, wages and expenditure," and you conclude that such include everything. What about the building? You say "the Ontario people get value for their money, etc." I fancy they had to pay or have to pay for their buildings, but the charge is certainly not included in Mr. Dean's reported expenditure. We pay \$900 a year for rent. You are evidently in error to this amount in making the comparison—add this to the above error and we have \$1,790.11.

Again, I do not think that Mr. Dean's own salary is included in his statement, for I find in the public accounts of Ontario that his salary is charged in another place. With us, the Dairy Superintendent's salary, \$1,500 a year, is included. This is another error in your comparison of \$1,500. Add this to the \$1,790.11, makes total error so far, \$3,290.11. But this is not all. The salaries and travelling expenses of instructors "inspecting the factories and creameries, and, in addition, doing some judging at local fairs, besides lecturing at Farmers' Institutes," as you put it, are all included in the Manitoba Dairy Department estimates. These have nothing to do with the Dairy School, and why charge it to the Dairy School in making a comparison? Then, the printing of bulletins on care of milk and cream for farmers, the salary of a stenographer, office supplies, postage, etc., etc., are all included in the Manitoba Dairy Department estimates. Without giving details, you are in error here over \$2,000.00, which would be, so far, a total error of over \$5,290.11 out of the total expenditure of \$7,609.89 as given above. This looks bad. Now, to be definite, take the public accounts of Manitoba for 1901 and select the expenses chargeable to the Dairy School alone on the same lines as Prof. Dean charges—and the cost is only \$3,220.00. If you had taken the public accounts of Ontario and given the actual expenditure for dairy work and dairy instruction as follows:

Grant to Eastern Ontario Dairy Association	\$ 3,250 00
" " " " " " " " " "	750 00
Grant to Western Dairy Association	3,250 00
" " " " " " " " " "	750 00
Eastern Dairy School	9,570 70
Pioneer	1,874 78
Western	2,990 41
Agricultural College, Prof. Dean's salary	1,500 00
Experimental Dairy	5,127 54
Central Dairy School	6,258 41
Total	\$35,321 84

and compared this with our Dairy Department expenditure of \$7,609.89, there would be some sense in your comparison. In the above I have taken the actual expenses and not allowed for fees nor for butter and cheese, buttermilk, etc., sold, for none of these items are credited to the Dairy Department of Manitoba. The actual cost of the Manitoba Dairy Department was \$7,609.89, less the amount received for butter and cheese manufactured. Even with the above charged to Ontario, the comparison would be hardly fair to Manitoba, for I notice a large expenditure for Farmers' Institute work not included in the above, much of which was, no doubt, in connection with dairy instruction. In Manitoba it is all charged to the dairy appropriation.

Again, I would like to remind you something you should not have forgotten that the Dairy Department in Manitoba was organized to do what you turn down with implied contempt, that is, "inspecting the factories and creameries," and, in addition, doing some judging at local fairs, besides lecturing at Farmers' Institutes. The Dairy School was an afterthought. It was impossible for the Dairy Superintendent to remain a sufficient time in each creamery or factory to give each individual under the microscope he would like to give, and as butter and cheese makers had nothing to do during the winter a dairy school was suggested, where information and general review of work might be given. The Department organized the Dairy School as a branch of the Dairy

Department, but the Dairy School does not confine its work to "turning out about half a dozen certificated students each year." During the last session of the Dairy School there were 17 entered for the first term, 17 for the second term, and 20 for the third term. Many of these overlapped to get the benefit of two terms, so that there were often as many as 25 students in attendance at one time. The majority of these were farmers' sons and daughters who wished to become more expert in home dairying. These never intend to manage a factory or creamery, and do not pass an examination for the "certificate," which is your criterion for "an efficient Dairy School." I meet many of these in the Province, and their invariable testimony is that their short course at the Dairy School was of great value to them, and that their real success in dairy work dates from their attendance at the Dairy School. Again, those who took certificates in past years come back from time to time to discuss difficult problems with which they had to contend in their summer work. But why continue the subject? Your criticism was to kill or injure some one; to strangle an infant industry, not to encourage, assist or build up, for you make no suggestions for improvement. You do not and have never taken any interest in our dairy work. You have only been interested in it to the extent of an "ad." announcing the opening of the Dairy School, for which you charge \$23.75. Again, it is well known that conditions in Ontario are not the same as in Manitoba. In Ontario, farmers are forced into dairying, for their lands cannot compete with ours in grain-growing. It is easy, therefore, to direct students to the Dairy School, and yet, were it not for the environment of the Agricultural College at Guelph, it is doubtful if so many students would assemble for the dairy course alone. I may say here, also, that although you say "The Ontario people get value for their money," you should have remembered the past, and the many bitter attacks made on the floor of the Ontario Legislature regarding the extravagant expenditure in connection with this college, for which there was but little return. It is only within the past few years that the Ontario people have been getting value for their money. Then you go to Wisconsin for data. Perhaps you will be kind enough to give figures covering the expenditure in Wisconsin on dairy work for the past 30 years, building, professors and all. Then we can make a comparison, and the public can judge for themselves where the "ignorance" is so rife.

I almost forgot your reference to the work done by Prof. Robertson and his staff in the Northwest Territories. It seems strange that you have not sufficient business acumen to understand the creamery business of the Northwest Territories. The Dominion Government is behind that whole work. The best men available are engaged as buttermakers, and the butter is all handled by the Dominion Government. Are you aware that the cold-storage plant at Calgary cost the Dominion Government \$12,000? This does not include the building. Are you aware that butter was stored there for months for the raise, and that no middlemen's profits are paid? When you consider the fact that in Manitoba butter is sold from time to time to middlemen, who handle it to the best advantage, but always to make a living out of their business, is it anything to wonder at that the Dominion Government realized a little over 1c. a pound more than we did? I consider that Manitoba did well even in this comparison. If you are in favor of the Dominion Government handling all our dairy products, building a cold storage in Winnipeg, doing away with our produce merchants, why do you not write an article or two on the subject—half a dozen, if you like—but it is childlike ignorance (I am afraid it was cold steel on your part) to censure the Manitoba Dairy School in connection with this work. The Dairy School has nothing to do with it, and if there were 1,000 students at the Dairy School, and your "Dean, Farrington, McKay, Becker and the great Babcock" as professors, it would not change that "a little over a cent a pound price," so long as the products are held and marketed by the Dominion Government without going through the hands of middlemen. I do not wish to cumber your columns, but the question is not exhausted. You might give us what the Dominion Government and its officials are doing for Ontario and the Northwest Territories as compared with what they are doing for Manitoba. There are a score of topics that you might have taken up to show that Manitoba is keeping well in the race, notwithstanding the small appropriation for the Dairy Department and the many difficulties with which we have to contend. But you avoid giving help, even a word of encouragement, and you have from unjust comparisons, false promises and a smattering of dairy lore (you actually know the names of some dairy professors), padded on a criticism which gives no information, which is degrading in its sentiment, disloyal to our own Province, and unworthy a place in the columns of "an agricultural paper which caters to that great constituency, the farming community."

C. A. MURRAY,  
Manitoba Dairy Superintendent.

[Editor's Note.—The "Farmer's Advocate" believes that nothing is too good for the farmers of this Province.

The choice their motto and they can't do it.

For Manitoba. "Give us but the best."

The people look for this. They have a right to when their money is expended in the dairy and other branches of the public service. They are not prepared to haggle over the mere amount of their ex-

penditure. We have had no other object in view than that those chosen to serve the farmer should, as one prime essential, possess the requisite qualifications, and that first-rate service be rendered, so that the industry concerned may be put in the front rank so far as public aid may properly assist in that direction. In calling attention, in our issue of April 21st, to the inadequate returns received for the large expenditure of provincial funds on the Dairy Department of Manitoba, we made comparison with the Dairy School of the Ontario Agricultural College only, partly because of Prof. Dean's letter in the same issue of the paper, giving some account of that school, and partly because the comparison disclosed the Manitoba expenditure in quite unfavorable enough light. Had we taken up Ontario's entire expenditure on dairying, credit would have also to be given to all the benefits accruing to the Province of Ontario as an offset for that expenditure, as well as the number of dairy students attending the other dairy schools of that Province. In regard to the campaign criticisms of Ontario politicians regarding alleged "extravagance" connected with the Agricultural College at Guelph, the Dairy School appears to have been remarkably exempt. The figures given as to the cost of the Manitoba Dairy Department were taken from the Government estimates of each year, and it is not likely the Legislature would vote increased grants each year, from 1899 to 1901, and pass the same amount again for 1902, if the sums mentioned were not fully exhausted each year. Besides, we made no mention of the \$200 annually voted to the Provincial Dairy Association. However, as it is generally understood that the Dairy School will not, in its present form, be run another season, nothing further need be said on that score. It is also self-evident that the same principles that should govern in the choice of Dairy School instructors should be observed in the selection of factory instructors and Institute demonstrators, where, as we have repeatedly pointed out, a great work can be accomplished.

It is always easier and much pleasanter to say nice things about people and their work, but a journal such as the "Advocate" would be remiss in its duty were it not to frankly point out the shortcomings of public institutions designed to help the agricultural interests, and on many occasions it has proved to have had a most wholesome effect. This particular department has been the subject of a good deal of criticism, and the Superintendent may perhaps be pardoned for uncorking all his pent-up wrath on the "Farmer's Advocate." It is not becoming for one who only recently came to the country to accept a Government appointment, to cast reflections on the honesty of purpose of a journal that has for years been doing much to upbuild, not only the dairy interests, but those of every other branch of agriculture in the Province.

We have no quarrel with Mr. Murray. He has, during his short residence in the Province, exhibited commendable business ability, and it is generally understood that he has personally been instrumental in organizing the creamery combination, consisting of the National creamery in Winnipeg, and the Manitou, Cleburne, Rapid City and Gladstone creameries, and we have no reason to doubt but that his efforts toward the centralization of the creamery business will result in greater benefit to the dairy interests of the Province than he has been able to achieve in his official capacity as Dairy Superintendent.]

### Homestead Entries.

Perhaps no better evidence to show how Manitoba and the Northwest Territories are developing could be given than by citing the number of free homestead entries. The returns for 1901 showed such a large increase over other years, even over 1882, when the land boom attracted such a tremendous influx of Eastern Canadians to the West, that it was doubted whether the past year would show as good results, especially as settlers were obliged to take up land as free homesteads so much farther from railway lines. Nevertheless, the year just closed gives an even greater increase, being 6,665 in excess of 1901. The total entries for the fiscal year ending June 30, 1902, were 14,832, as against 8,167 in 1901, 7,426 in 1900, 6,689 in 1899, 4,848 in 1898, 2,384 in 1897, and 1,857 in 1896, the last year of the previous Government. The entries for 1902 represent a total area of free lands taken up during the fiscal year of 2,377,120 acres, against 297,120 acres in 1896.

### Colt Weak in Joints.

Mare carried colt about 12 months and 5 days. When foaled, colt was too weak to get up alone for several days. Is now ten or twelve days old and still very weak in joints of fore legs. Is feeling well and will try to trot and play, but fore legs are very liable to bend outward at knee joints even when walking, and joints are quite badly puffed on outside, forward. What do you consider cause, and remedy? Will it be likely to cause any lasting injury? Have a very fine yearling from the same horse and mare.

H. H. KIRKPATRICK.

Ans.—It is difficult to state exactly how your colt became so affected; probably due to imperfect nutrition during foetal life. See that it is not allowed to be in a damp place; protect from exposure to rain and cold; encourage a large flow of milk in the dam, and in time the trouble will likely disappear, never to return.



"Small service is true service while it lasts; Of friends, however humble, scorn not one; The daisy by the shadow that it casts Protects the ling'ring dewdrop from the sun."

Ingle Nook Chats.

My dear Guests,—

"Many of us walk through the world like ghosts, as if we were in it, but not of it. We have 'eyes and see not, ears and hear not.' . . . To be able to see what we do see is a great gift. Ruskin maintains that 'The greatest thing a human soul ever does in this world is to see something, and tell what it saw in a plain way.' I do not suppose that his eyes were better than ours, but how much more he sees with them."—Sir John Lubbock.

To what a great number may these lines be applied! How few there are that really see the manifold beauties that surround them! How many, among the wealthy, travel from city to city to gaze on and rave over (the latter they must do to prove their artistic taste) the creations of the great artists, which are, after all, mere imitations, and shut their eyes to the loveliness that lies all about them!

"In her own home, the country," says Jerome K. Jerome, "Nature is sweet in all her moods," but surely at this season she has reached the zenith of her beauty. The meadows and grain-fields sway in the breeze like oceans of emerald, forming wavy undulations where "dark hollows seem to glide along and chase the sunny ridges." The ever-thickening canopy of the woods shades the frail ferns from the too-fervent sun-rays; along the lanes the thrifty anemone spreads her snowy blossoms, while soft-eyed daisies and dazzling buttercups brighten our every pathway. The air is redolent of the breath of roses, for is not this their very own month? Sunrise and sunset vie with each other in charming the eyes of those who can see, and even when the glory of the dying day is past, new beauties are born as the "orb'd maiden with white fire laden whom mortals call the moon" rises majestically behind the horizon. One cannot gaze on those wonders without being almost insensibly drawn to

the contemplation of their Creator, or, as one of the Ingle Nook boys expresses it:

"I think how wonderful God must be, To make all the beautiful things we see."

My pen lacks Ruskin's ability to tell what I see—also, it would take too much time and space to do so—so I shall leave my Guests to visit Nature's art gallery for themselves, and trust that each will come thence enriched with numerous treasures.

My dear Mrs. H—, it is very kind of you to take so active an interest in the Nook. Parents can do so much to stimulate or retard, as the case may be, the ambitions of their children, according as they encourage them by well-timed interest in their efforts, or depress them by their lack of it, or, worse still, disparage their attempts. You are not the only mother among our Guests, nor need I mention that all such are specially welcome; so come again, and often.

The names of George Matheson and Arthur Burr were accidentally omitted from the list of contributors to the poetry contest.

OUR COMPETITIONS.

I have heard from but few of my Guests for Contest XX—"The Wild Flowers of our Province." Surely these darlings of the different parts of our Dominion can find some lover to sing their praises. I have hoped for an excellent showing this time, but there is nearly a month yet, so I shall await results, and in the meantime announce

CONTEST XXI.

Three prizes will be given for the most correct list of the authors of the following quotations, and the works in which they occur. Four marks will be allowed for each, viz., two for the author's name and two for the work. Contestants making highest marks will receive the prizes. In case of a tie, neatness, etc., will decide the winner. Address all work to "The Hostess," Ingle Nook Chats, Pakenham. Contest closes August 20th.

- 1. "The proper study of mankind is man."
2. "The age of chivalry is past."
3. "Not to fear because all is taken Is the loneliest depth of human pain."
4. "I pass like night from land to land."
5. "True worth is in being, not seeming."
6. "Pleasures are like poppies spread, You see the flower, its bloom is shed; Or like the snowflake on the river, A moment seen—then melts forever."
7. "God tempers the wind to the shorn lamb."
8. "A thing of beauty is a joy forever."
9. "There are moments when silence serene and unbroken More expressive may be than words which are spoken."

- 10. "The last flower, with a brimming cup, may stand And share its dewdrop with another near."
11. "While Valour's haughty champions wait Till all their scars are shown, Love walks unchallenged through the gate To sit beside the Throne."
12. "The world is no longer a mere dingy workshop, but a stately temple wherein man may worship, and where, at times, in the dimness, his groping hands touch God's."
13. "Modesty seldom resides in a breast that is not enriched with nobler virtues."
14. "Men whose lives glided on like rivers that water the woodland, Darkened by shadows of earth, but reflecting the image of heaven."
15. "'Tis better to have loved and lost, Than never to have loved at all."

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

The Old Abbey.

Here, in the gloom it stands, 'mid oak and linden, And shivering aspens tall. Here where the thrush and merry bluebird To their mates sweetly call. O'er these gray walls of antique Norman structure, The dark green ivy creeps. Onward it climbs, and upward where the belfry Its lonely vigil keeps. Weird, awesome whisp'rings float thro' all the tree-tops; Yet deep, unbroken peace Seems to have found a home amongst the elms Whose rustlings never cease. Mayhap some maid with hair of Saxon fairness Passed o'er this threshold wide, And when again her light feet pressed the green-sward She was a happy bride. The mournful music of some deep-toned organ Seems to fall on the stilly air; Breathing, in accents soft, subdued, and solemn, The low, sweet notes of prayer. Up those long, shadowy aisles come ghostly footsteps, Phantom forms pass swiftly by. On, and still on, they tread, but 'neath the altar The fright and echoes die. A lonely owl perched high 'mid silken cobwebs, Disturbs my reverie, With a low hoot, and in the deep'ning shadows All my weird fancies flee." AGNES D. C. HISEY. (For the Ingle Nook.)



(G. Basson.)

"FLIRTATION."

## Sofa Pillows.

## I.

I intend to be practical this time. I shall make a desperate attempt not to indulge in any flights of fancy or redundant metaphors, but just have a plain, straightforward chat about those comfortable and comforting peace-promoters—sofa pillows.

We need them at this time of year. Yes, but we do! When is a woman in more need of sofa pillows than after bending over the washtub on a sultry July morning, or straining her arms at baking or churning, or enduring those spirit-quenching headaches that are sure to come on the busiest and hottest summer days? It is then that we need the "after-dinner naps" and the sofa pillows, but I wonder how many of us indulge in such luxuries.

I don't mean the elegant "touch-me-not" creations, perched on the right-angled slippery sofa, or on one of the leaves of the clover-topped table. They are beautiful, of course, but what tired woman wants to rest her head on a bunch of hawthorn blossoms, or lean her cheek on a moss rose (even if they are only painted), or let her sunburned arms lie limp across a tracery of Battenburg lace arranged over shell-pink satin? Such pillows are without doubt dainty adjuncts to a dainty room, and perhaps I shall tell you some time how to make exquisite ones, but it is for the plain, unpretentious, everyday pillow that I plead to-day.

It is easily made: Just a bit of common ticking and a few feathers for the foundation, and for the cover something as pretty and pleasing as you like, but, if possible, washable. Art muslin is a very good material for such a purpose; it is inexpensive, and comes in pretty designs, and when finished with a wide, double frill makes an attractive as well as useful pillow. White organdie, decorated with some simple pattern in outline stitch, and made up over a delicate color, also makes a pillow that one needn't fight shy of. The various denims and linens are nice for covers, and art ticking is exquisite. A novel cover is made of two large red handkerchiefs in some odd design, knotted at the corners. Besides these, one can get covers to buy, for a trifle sometimes, stamped on various kinds of material, which with a little work will make a pillow that will go far towards wooing sleep.

It is a good plan to have a generous supply of such pillows on hand, and if there is a cool, secluded nook on the lawn or veranda, fasten up a hammock, and on these hot, sweltering days see that you make use of it, if it be only for fifteen minutes. Does the butter you have worked so hard to obtain float white and soft on the cold clear water? Does the meat boil dry on top of the stove, or the loaf-cake flatten in the oven? Do the men come in wanting an early dinner when the potatoes aren't peeled yet and the baby is cross? Is your beauty-loving soul wounded more deeply than your cherished flower-beds by those persistently aggravating chickens? Then is the time to "keep a watch on your words," and as soon as the dinner dishes are washed, or whenever you have a spare moment, drop down among the pillows in the hammock. Through the cool, whispering leaves above you, or the redolent balsam branches, you can see the blue sky, always serene and fair even when the clouds are heaviest. The perfumes from your remaining floral treasures steal up to you, and the robins will hop softly about you, and the butterflies will flutter and gleam out in the sunshine. When your eyelids droop slowly you will hear the monotonous tap of the woodpecker, and the drone of the hummingbird, and a little breeze will sway the hammock, and lo! you are aboard a yacht with the pure, dimpling lake all around you and the sea gulls swooping and dipping between you and the purpling shore—O, I forgot about the "metaphors"! I must stop at once, or there is no knowing how long you may sleep, but when you waken you will feel ten years younger and brighter.

Next time we shall try to consider the "touch-me-nots."  
CHRYSOLITE.

## Humorous.

Two Irishmen were assisting to unload a ship lying in the harbor of Galway, and at dinner-time, on going to make their tea, one of them cried to the other: "Pat, did you see me can?" "Ha, sure," replied the other, "MacCann's in a gone round the corner." "Begorra, it's not MacCann; it's me tea can I'm after askin' for."

In the course of the terrible march of the Irish Fusiliers from Dundee to Lady Smith, the men were much fatigued, owing to the rough country. One man in particular stumbled along a road leading to the sheep. An officer passed by and said to Michael, "What country is this we're marching over?" "The road and tableland, my man," was the reply. "What do you mean?" said Michael, "I think the table's turned up, and we're walking over the legs of it."

## THE QUIET HOUR.

## The Enthusiasm of Self-sacrifice.

"In full and glad surrender we give ourselves to Thee.

Thine utterly, and only, and evermore to be!  
O, Son of God, who lovest us, we will be Thine alone,  
And all we are, and all we have, shall henceforth be Thine own!"

What is our business in this world, do you think? If we are truly trying to copy our Master, Christ, it must be our business to help others, at any cost to ourselves. The strong cord of love drew Him down from heaven to suffer with and for mankind, and many of His faithful servants have been irresistibly drawn to sacrifice ease and riches, rejoicing to spend and be spent for their poorer brethren.

He who would save his life must lose it, and he who lives selfishly, for himself only, is really losing the life he clings to. The whole world is preaching the necessity of self-sacrifice, voluntary or involuntary. The vegetable is sacrificed that the animal may live, animals again, all a sacrifice to other animals and man, then their turn comes to decay and spring up into new life by ministering to the wants of the vegetable kingdom, and so the circle of death and life begins again. Then, every seed that falls into the ground gains a fuller life through death; except it die it "abideth alone." Without sacrificing seed no one can get a harvest at all, and he that soweth bountifully has a right to look for a bountiful harvest, while he that soweth sparingly need not be surprised if he has a very scanty crop to reap. This principle holds good in the spiritual as well as in the natural field. Did you ever know a man to be happy if he made it his chief business in life to seek happiness for himself? Even the little child who always tries to secure the largest piece of cake or candy, or the most coveted position in the games, is pretty sure to be discontented and unhappy. He thinks it is because he doesn't always get exactly what he wants—and many older children make the same mistake—but the trouble really is that he has never learned the lesson of "doing without."

There is one great difference, however, between the sacrifice of seed grain and the sacrifice of one's self. The first is done deliberately, for the sake of the future harvest; while the second is worthless if it is done for the sake of reward. "If ye lend to them of whom ye hope to receive, what thank have ye? for sinners also lend to sinners, to receive as much again." The disciples had not yet caught their Master's spirit, when, after declaring the things they had given up for His sake, they asked, "What shall we have therefore?" The widow of Zarephath was surely not acting from interested motives when she shared her last morsel with a hungry stranger—although he did promise that she should lose nothing by her kindness. Yet that sublime act of self-sacrifice was the direct means of preserving her own and her son's life till the famine was over. But God does not always make such a return as this. Indulgent mothers only educate their children in selfishness when they reward them at once for every generous act. The children learn to expect it, feel injured if no notice is taken of their sacrifice, and entirely lose the pleasure of giving. David was certainly right when he declared that he would not give to his God a present which cost him nothing. When the poor children belonging to a Sunday-school in the slums of New York gave more than fifty dollars to the persecuted Armenians, it would have destroyed their pleasure if someone had at once handed back the coppers they gave so generously.

The son of an Irish clergyman once asked his father for money for a miserable, ragged child who was begging at the door. The father explained that he couldn't do anything, as he had already so many in his own parish to help. "However," he said, "if you like to go without your own dinner and give it to the child, you may." The boy did this and received, as he said himself, the best lesson about charity that he ever had in his life.

"Measure thy life by loss instead of gain.

Not by the wine drunk, but the wine poured forth  
For Love's strength standeth in Love's sacrifice.

And who suffers most has most to give."

We can all admire that heroic Dr. Smith who fought so gallantly against an outbreak of typhoid fever in Dundee. He was both doctor and nurse to his sick neighbors, and even brought one family from their miserable hut, which had neither window nor fireplace, to the hospital. They lived on an island, and as the panic-stricken islanders refused to lend a boat, the doctor sought out a larger one. Then he carried the doctor, his family, and his belongings in his arms, and had the boat

rowing them across to the mainland. The epidemic was checked, but only at the expense of the gallant doctor's own life.

We can all admire him, but the important question is, are we capable of imitating him by laying down our lives for others? It is easy to dream enthusiastic dreams about the glory of martyrdom, but our readiness for heroic self-sacrifice is always tested in the humdrum atmosphere of everyday duties. If we, in actual fact, refuse to sacrifice time, money, strength, or anything else we have to give—right here and now—then we are never likely to lay down our lives grandly in the dim future.

"Blessed are those who die for God,  
And earn the martyr's crown of light—  
Yet he who lives for God may be  
A greater conqueror in His sight."

As Robertson says: "The most trifling act which is marked by usefulness to others is nobler in God's sight than the most brilliant accomplishment of genius. To teach a few Sunday-school children, week after week, commonplace, simple truths—persevering in spite of dullness and mean capacities—is a more glorious occupation than the highest meditations or creations of genius which edify or instruct only our own solitary soul."

"So he dies for his faith. That is fine—  
More than most of us do.  
But say, can you add to that line  
That he lived for it too?"

"In his death he bore witness at last  
As a martyr to truth.  
Did his life do the same in the past  
From the days of his youth?"

"It is easy to die. Men have died  
For a wish or a whim—  
From bravado or passion or pride.  
Was it harder for him?"

"But to live—every day to live out  
All the truth that he dreamt,  
While his friends met his conduct with doubt,  
And the world with contempt.

"Was it thus that he plodded ahead,  
Never turning aside?  
Then we'll talk of the life that he led  
Never mind how he died."

HOPE.

## Peace!

"Peace!" is the word, to the war-swept belt,  
That the galloping burghers bring.  
"Peace!" is the cry in a tone heart-felt  
From coster and peer and king.  
"Peace!" is the chorus—a mighty voice  
Upraised in a rapt refrain—  
As nations, a world-wide throng, rejoice  
But the graves of the dead remain.

Cheers from a myriad bursting throats  
Greeting the welcome news.  
Songs in a flood of thankful notes,  
Till even the stones enthuse.  
An end to the dread-pent day and night,  
An end to the long, long strain,  
An end to the battle and march and flight—  
But the graves of the dead remain.

The rifle is mute on the bowdlered top,  
The evening lamp-light's glow;  
The farmer thinks on a different crop  
Than bullet and shell may sow.  
Over the veldt, all silent, vast,  
The vultures wheel in vain.  
The banquet of war is done, at last—  
But the graves of the dead remain.

Mothers there are who now may sleep,  
Nor dream of a moaning boy;  
Wives who out of their gladness weep;  
Maidens who dance with joy.  
But in many a homestead tears are hot,  
And many an English lane,  
Where born of the tidings peace comes not—  
For the graves of the dead remain.

—Edwin L. Sabin, in Leslie's Weekly.

## Out in the Fields.

The little cures that fretted me,  
I lost them yesterday,  
Among the fields above the sea,  
Among the winds at play,  
Among the lowing of the herds,  
The rustling of the trees,  
Among the singing of the birds,  
The humming of the bees.

The foolish fears of what might pass,  
I cast them all away,  
Among the silver-scented grass,  
Among the dew-mown hay,  
Among the lowing of the team,  
Whereof I am a part,  
As I am a part of you,  
And good are born—  
That in the field with God!

—St. Paul's



THE CHILDREN'S CORNER.

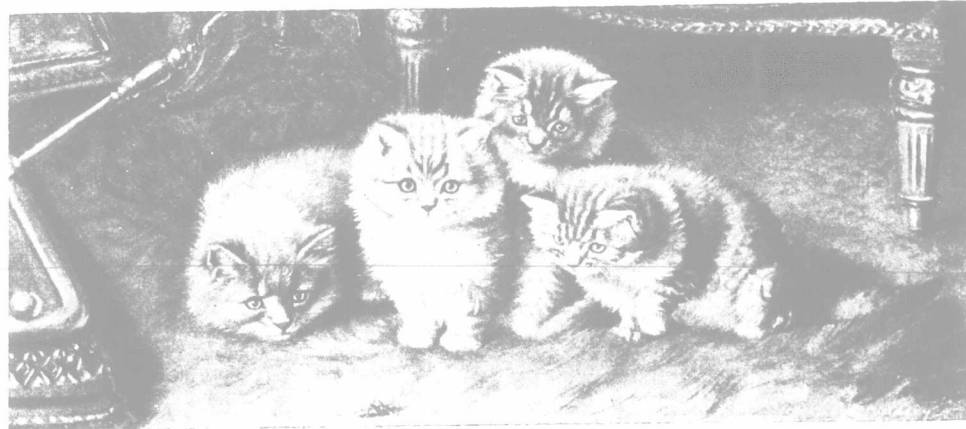
Four Little Kittens.

Four little kittens, so downy and soft,  
Were cuddled up by the fire,  
And two little children were sleeping aloft  
As cosy as heart could desire;  
Dreaming of something ever so nice,  
Dolls and sugar-plums, rats and mice.

The night wore on, and the mistress said,  
"I'm sleepy, I must confess,  
And as kitties and babies are safe in bed,  
I'll go to bed, too, I guess."  
She went upstairs, just a story higher,  
While the kittens slept by the kitchen fire.  
"What noise can that be?" the mistress said,  
"Meow! meow!" "I'm afraid  
A poor kitty cat's fallen out of bed!  
The nice little nest I made!"  
"Meow! meow!" "Dear me! dear me!  
I wonder what can the matter be!"

The mistress paused on an upper stair,  
For, what did she see below?  
But four little kittens, with frightened air,  
Standing up in a row!  
With eight little paws on the step above,  
And no mother cat to caress or love!  
Through the kitchen door came a cloud of smoke!  
The mistress, in great alarm,  
To a sense of danger straightway awoke:  
Her babies might come to harm.  
On the kitchen hearth, to her great amaze,  
Was a basket of shavings beginning to blaze.

Four little kittens were hugged and kissed,  
And promised many a mouse;  
While their names were put upon honor's list,  
For hadn't they saved a house?  
And two little children were gathered tight  
To their mother's heart ere she slept that night.



FOUR LITTLE KITTENS.

Stood by His Flag.

A writer in the Youth's Companion tells this story of a true Christian Hero:

A dozen rough but brave soldiers were playing cards one night in the camp. "What on earth is that?" suddenly exclaimed the ringleader, stopping in the midst of the game to listen.

In a moment the squad were listening to a low, solemn voice which came from a tent occupied by several recruits who had arrived in camp that day. The ringleader approached the tent on tiptoe. "Boys, he's a-praying, or I'm a sinner!" he roared out.

"Three cheers for the parson!" shouted another man of the group as the prayer ended.

"You watch things! I'll show you how to take the religion out of him!" said the first speaker, laughing. He was a large man, the ringleader in mischief.

The recruit was a slight, pale-faced young fellow of about eighteen years of age. During the next three weeks he was the butt of the camp. Then several of the boys, conquered by the lad's gentle patience and uniform kindness to his persecutors, begged the others to stop annoying him.

"Oh, the little ranter is no better than the rest of us," answered the big ringleader. "He's only making-believe pious. When we get under fire you'll see him run. Those pious folks don't like the smell of gunpowder. I've no faith in their religion!"

In a few weeks the regiment broke camp, and entered the Wilderness, and engaged in that terrible battle. The company to which the young recruit belonged had a desperate struggle. The flag was driven back, and when the line retreated behind the breastworks they had built the following morning, he was missing.

When last seen he was almost surrounded by the enemy, but fighting desperately. At his side stood the brave fellow who had made the poor

lad a constant object of ridicule. Both were given up as lost.

Suddenly the big man was seen tramping through the underbrush, bearing the dead body of the recruit. Reverently he laid the corpse down, saying, as he wiped the blood from his own face: "Boys, I couldn't leave him—he fought so! I thought he deserved a decent burial."

During a lull in the battle the men dug a shallow grave and tenderly laid the remains therein. Then, as one was cutting the name and regiment upon a board, the big man said with a husky voice:

"I guess you'd better put the words 'Christian Soldier' in somewhere! He deserves the title, and may be it'll console him for our abuse."

There was not a dry eye among those rough men, as they stuck the rudely-carved board at the head of the grave, and again and again looked at the inscription.

"Well," said one, "he was a Christian soldier, if ever there was one! And," turning to the ringleader, "he didn't run, did he, when he smelt gunpowder?"

"Run!" answered the big man, his voice tender with emotion; "Why, he didn't budge an inch! But what's that to standing for weeks our fire like a man, and never sending a word back? He just stood by his flag and let us pepper him—he did!" When the regiment marched away, that rude headboard remained to tell what a power lies in a Christian life.

Recipes.

ESCALLOPED EGGS.

For this, take six eggs, five spoonfuls of minced ham, a little chopped parsley, a very little minced onion, three spoonfuls cream and one of melted butter; season to taste; one-fourth cupful

bread crumbs moistened with milk and a spoonful of melted butter. Line the bottom of a small, deep dish, well buttered, with soaked bread crumbs; put upon them a layer of chopped ham, with the onion and parsley. Set in the oven covered until smoking hot. Beat the eggs to a stiff froth; stir in the cream and a spoonful of melted butter; pour upon the ham; put the dish, uncovered, back into the oven, and bake until the eggs are "set."

SALMON SCALLOP.

For this, take one can salmon, one cupful of cream, one-half cupful of milk, two small tea-spoonfuls of flour, rubbed smooth; one tablespoonful of butter and a pinch of soda; pepper and salt to taste. Turn the salmon from the can into a colander, so as to drain, and pick the fish into small flakes with a fork, removing all bone and skin. Have ready the milk and cream heated in a double boiler with the soda, and add to them the butter and flour, stirring constantly until they thicken smoothly. Put in the salmon and toss about with a fork until heated through. Remove from the fire and fill greased scallop shells or patty-pans with the mixture. Sprinkle crumbs there, and set it in the oven long enough to brown over the top of each, stick bits of butter here and there, and set it in the oven long enough to brown lightly. Serve with crackers or sliced lemon.

LAMB SCALLOP.

One cupful cold lamb, chopped fine, one and one-half cupfuls stewed tomatoes, one cupful fine bread crumbs. Arrange all in layers in a buttered dish, having crumbs at the top. Place butter between each layer. Season with pepper and salt.

ESCALLOPED ONIONS AND POTATOES.

Into a buttered dish put a layer of sliced raw potatoes; next a layer of sliced raw onions, season with salt and a little white pepper; repeat the process, the last layer should be potato. Pour over the top a pint of milk thickened with a little flour. Bake about an hour.

VEAL SCALLOP.

Cut veal from the leg or other lean part into pieces the size of an oyster; have a seasoning of salt, pepper and a little mace; rub some over each piece; dip in well-beaten egg and then into cracker crumbs, and fry as you do oysters.—E. C. Petty.

Belinda's Garden.

Belinda had a garden fair,  
Laid out to suit her fancy,  
With magic blossoms blooming there—  
The strangest necromancy.

The largest flowers were, of course, in beds;  
In cradles were the smallest;  
The larkspur had the highest heads,  
Because they were the tallest.

And all the larks that on them grew  
Kept up a wondrous singing;  
The trumpet-vine its trumpets blew,  
The bluebells kept a-ringing.

In perfect time the four-o'clocks  
Held up their open faces,  
And on the heads of brilliant cocks  
The cockscomb bloomed in spaces.

To take her tea, Belinda sat  
Upon a satin pillow,  
Where here and there a pussy-cat  
Grew on a pussy-willow.

Gay slippers on her feet were worn,  
The lady's-slipper bore them;  
The corn-flower yielded ears of corn  
So large she had to store them.

To give her butter, fresh as dew,  
The buttercups were handy,  
And on the candy-tuft there grew  
The best of sugar candy.

The honeysuckle on the spot  
Supplied her well with honey,  
Now, with such flowers as these, was not  
Belinda's garden funny?

—Selected.

Some Sick-room Jests.

It has often been remarked how jesting words have been spoken upon the most unexpected and apparently inappropriate occasions. "Here I lie, dying of a hundred good symptoms," was Pope's half-bitter jest to a friend who visited him during his last illness. Was it not Sheridan who described himself, after recovering from a dangerous illness, as having "made a run-away knock at death's door"? The condition of his own health, particularly his digestive organs, was (to himself) far too awful and solemn a subject for Carlyle to jest upon, and we may search in vain amid the utterances of the Sage of Chelsea for any light or irreverent allusions to his own ailments, real or imaginary. But Mrs. Carlyle (who subsequent events proved was, if not the greater invalid, at least the shorter-lived of the pair) often joked about her own illness, and even about the more sacred sufferings of her husband, to her own friends and correspondents. Dean Ramsay tells of an old Scotch lady who on her death-bed overheard one of the attendants whisper, "She is going fast; her face is growing like a sheet of paper." "It maun be broon (brown) paper then," murmured the dying woman, who was of a very sallow complexion. An old Scotch woman, who was extremely stout, and afflicted with many ailments, once remarked to a friend, "I think there's o'er muckle o' me to be a' weel at the same time." But fat persons are proverbial for their good-natured endurance of their "burthen of flesh," which is, in its way, a form of disease. After all, it is pleasanter for their companions when invalids can take a cheerful view of their own complaints instead of incessantly lamenting over them. Doctors have encountered many a witty retort from their patients. A young physician, called in to attend on an old lady suffering from a sore throat, remarked that he himself had once been similarly afflicted, but had cured himself by growing a beard. "I dinna see how I can adopt that cure," remarked the old lady, drily. Equally ready was the venerable dame who, when her medical attendant reminded her that he could not make her young again, retorted with dignity, "Did I ever ask you to do so? I only want you to enable me to go on growing old."

One day, before the late Lord Russell was elected to the bench, he was sitting in court, when another barrister, leaning across the bench during the hearing of a trial, for fugate, who perked up Russell, what's the extreme penalty for fugate? "Two months-in-law," instantly replied Russell.

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THE FARMER'S ADVOCATE

GREETING.

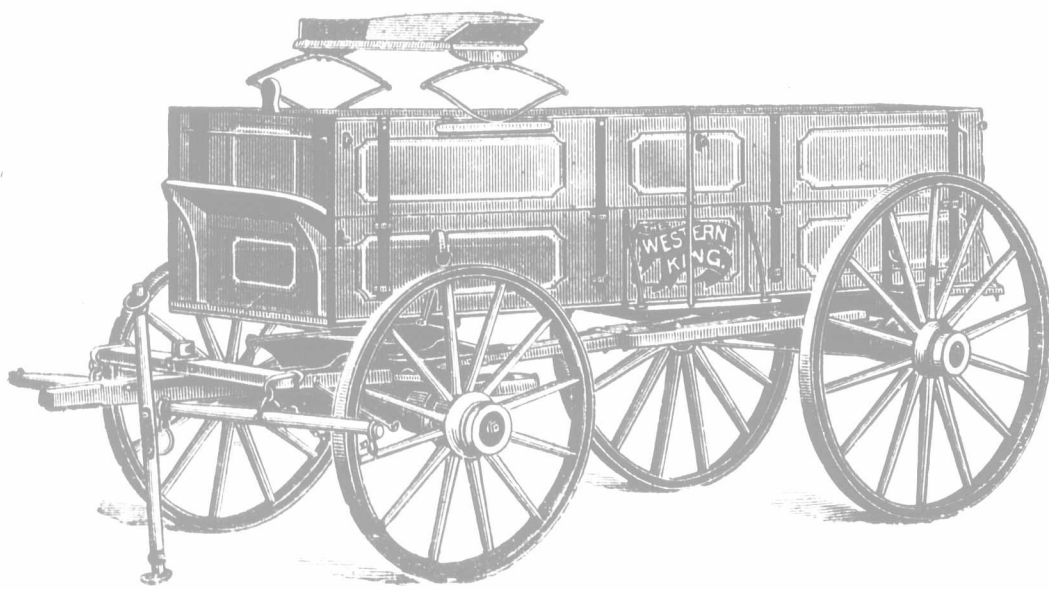
VISITORS and Exhibitors attending the Winnipeg Industrial Exhibition will be welcomed at the ADVOCATE TENT on the grounds, or at its commodious new quarters, occupying the entire first flat, Imperial Bank Block, corner Main Street and Bannatyne Avenue. Supplies of stationery for correspondence, sample copies, etc., will be at their disposal.

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THIS LINE OF

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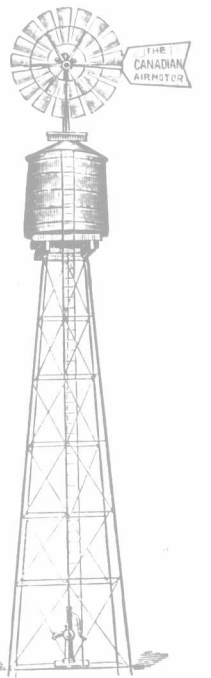
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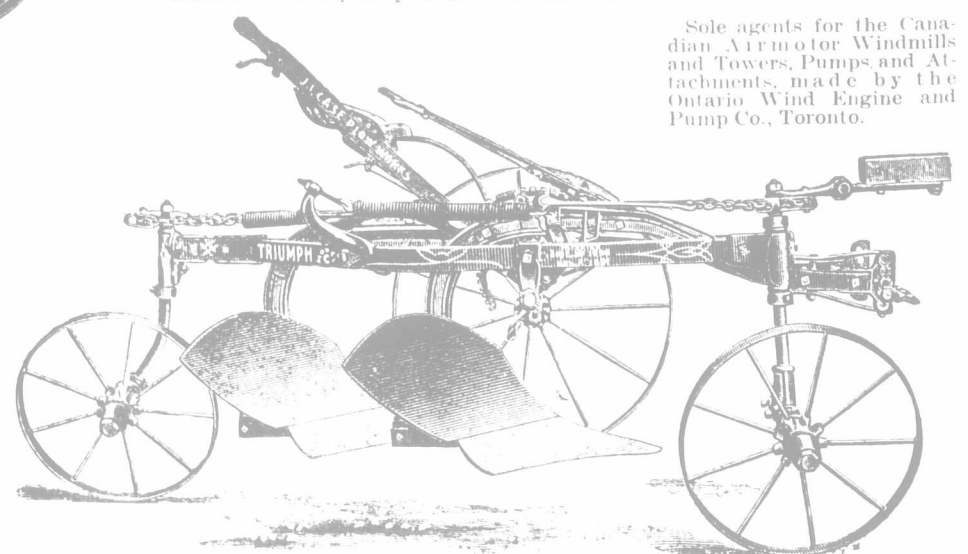
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- " TRIUMPH GANG PLOWS, "
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FOUNTAIN CITY GRAIN DRILLS, all sizes, LACROSSE, WIS.  
 FAMOUS WESTERN KING W'GONS AND FARM SLEIGHS,  
 Made by the Woodstock Wagon & Manufacturing Company.  
 BUGGIES, PHAETONS, CUTTERS AND SLEIGHS,  
 Manufactured expressly for the Western trade.



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THE ONLY GANG THAT THREE HORSES CAN WORK ALL DAY.

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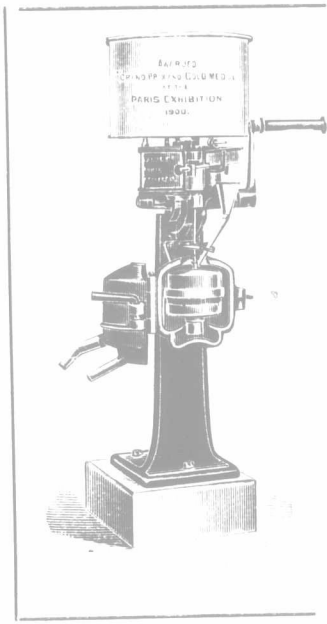
OUR  
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OUR OFFICE

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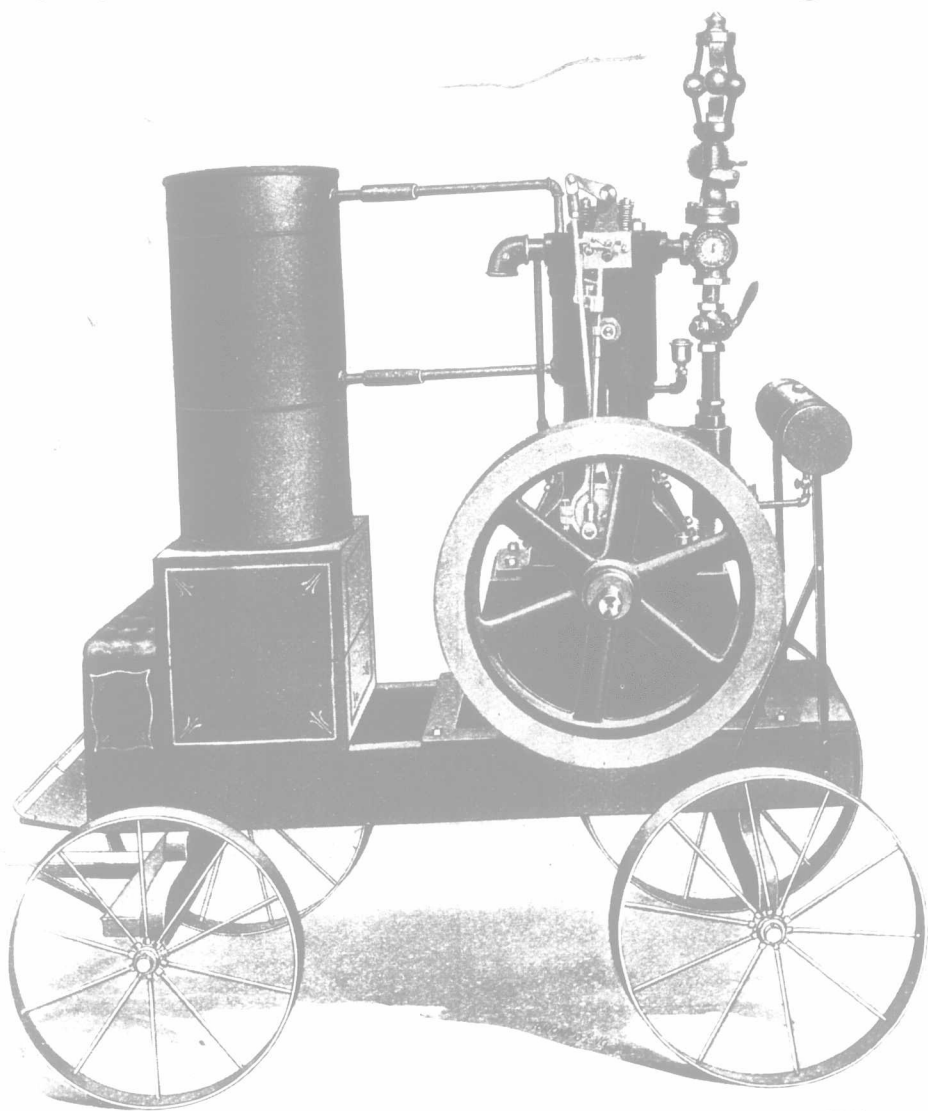
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(LIMITED).

## The McLachlin Gasoline Engine



IS MOUNTED IN 5, 10, 15, 20 OR 25 HORSE POWER.

Write **The McLachlin Gasoline Engine Co., Limited,**

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## Imperial Maple Syrup

Return it to the dealer of whom you bought it, who is authorized to give you your money back.

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For procuring new yearly subscribers to the Farmer's Advocate.

### THE BIG FOUR

THE GREAT PREMIUM PICTURE OFFER, FOR OBTAINING NEW SUBSCRIBERS TO THE "FARMER'S ADVOCATE" AT \$1 A YEAR.

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Admitted by judges, breeders and artists to be the most magnificent engraving of high-class modern Shorthorns ever issued in any country. 24 x 36 inches. Twelve animals.

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Nine celebrated draft horses.

Your choice of any two of these for 1 new subscriber, or all four beautiful pictures for only 2 new subscribers.

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Eleven celebrated light horses.

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Thirteen celebrated Ayrshire cattle.

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Beautiful, strong Farmer's Pocketknife for two new subscribers.

### Bagster's <sup>NEW</sup> 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.

Write for a sample copy of the Farmer's Advocate, and begin to work for these premiums. Cash must accompany new names. Subscription, \$1 per year.

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

### Now in Operation.

The Brandon Binder Twine Factory is now not only an accomplished fact, but is in actual operation. The factory itself is a large solid brick structure, with metallic roof and an engine house attached. The warehouse, in close connection, is a wooden building, lined outside with metallic shingles and offering ample room for raw material, finished product and an office. The factory is the central point of interest, for the great quantity of machinery presents an imposing appearance. The raw material first passes through a large round machine called "a great breaker," thence to two spreaders, then to two draw frames, from whence it goes to the spinning frames. The four machines first named have a capacity of five tons every ten hours, while the thirty frames of two spindles each have a capacity of three tons every ten hours, so, if necessary, more frames can be added. In addition, there are five balling machines and one former for making rope for lashing bags. Mr. John Dwyer, the foreman of the factory, worked for five years with the L. Waterbury Co., for five years with the Galveston Rope Co., for one year with the Columbia Rope Co., and for five years with the American Manufacturing Co., of Brooklyn, and in addition is highly recommended by the Watson Co., of Peterson, the manufacturers of the machinery. At present there are eighty-five tons of raw material in the warehouse, and more will be ordered at once. Soon the factory will run overtime for orders for twine are coming in by every mail. The motive power for the factory is a one-hundred-horse-power Wheelock engine, made in Canada, and by two seventy-five-horse-power boilers, which have also to supply steam for heating. Mr. D. M. Finlay is the engineer in charge.

Out of the \$100,000 capital stock of the company, \$95,000 has been subscribed by 2,900 shareholders. Fully 2,500 of these are bona-fide farmers, and on the basis of 100 lbs. of twine to each farmer, the shareholders alone will require 1,000,000 lbs. The annual output of the factory, working ten hours a day and ten months in the year, will be 1,500,000 lbs., and this can be almost

doubled, if need be. At the next annual meeting the manufacture of rope and bags will be considered, as this is a farmers' company and it is the wish to supply the farmers' needs. At present, the cloth for grain bags is made in Peoria, Ill., and sent from there to Montreal, where it is made into bags. The manufacture here would effect a great saving in freights and otherwise. The making of rope, too, would entail little expense, and appears decidedly advantageous. ADVT.

#### NOTICE.

IN THIS ISSUE appears the advertisement of Mr. D. E. Clement, druggist, of Brandon. Mr. Clement is a young man of sterling character and wide reputation, not only in Brandon, but throughout the western part of the Province, having lived in the Wheat City since 1882. After completing his education, he spent six years with one of the leading druggists of the Province, resigning his position to accept the management of a drug store in Calgary for one year, afterwards taking charge of a store in Carberry, Man., and subsequently taking a two-years' course in the Winnipeg College of Pharmacy. Thoroughly qualified for the business, and knowing so well the demands of the western people, he began business for himself, opening a drug store in September, 1901, on the corner of 9th St. and Rosser Ave., and since that time his business has been increasing with marvellous rapidity, until he now stands in the front rank among the business men of the city. The store is situated in the heart of the city, being the most central and most frequented spot in Brandon. The stock is composed of drugs and chemicals of every nature and description, a full line of patent medicines and druggists' sundries, all fresh and assorted, so as to meet the needs of every customer. Mr. Clement has made a specialty of giving prescriptions, using the most perfect care to see that the dispensing is accurately done. This branch of his work, no doubt, accounts for much of his success. The Farmer's Advocate is congratulating Mr. Clement on his new venture and hopes that his prospects in the drug business may continue.

GOSSIP.

The 17th annual fair of the Yorkton Agricultural Society...

Mr. J. Herriot, Souris, has imported two pure-bred Holstein heifers...

The popular all-round shooting dogs of today are the flat-coated retrievers...

John A. Turner, of Balgrogan Stud Farm, Calgary, has recently disposed of the following Cottesdales...

THE MARCHMONT SHORTHORNS. Marchmont Stock Farm, at Middlechurch, Manitoba...

ARE YOU INTERESTED IN LUMBER AND BUILDING SUPPLIES?

Do you want the best at the lowest price? Would you prefer dry, well-seasoned lumber to green?...

HUGHES & Co., BRANDON, MAN. 10TH STREET.

Bear in Mind Western Manitoba's Big Fair

BRANDON, JULY 29, 30, 31, AUGUST 1, 1902.

Everything and Everybody will be there. If you miss it you'll regret it.

Great Exhibits. Splendid Races. Startling Acts.

SPECIAL EXCURSION RATES FROM ALL POINTS.

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For Prize Lists and other information address THE MANAGER.

Valuable Books!

- Farmer's Encyclopedia. 610 large pages. 600 illustrations. Price \$1.65, postpaid. Dr. Chase's New Recipe Book; or, Information for Everybody. Price \$1.00, postpaid. Dictionary of Everyday Wants, containing 20,000 Recipes. Price \$1.00, postpaid.

A complete book of reference on the Horse (his diseases, etc.) Cattle, Sheep, Swine, Poultry, Dairying, Beekeeping, Home Medicines. By D. Wagner.

The choicest and most valuable recipes in Medicine, Mechanics and Household Economy.

The recipes cover nearly every department of human effort. There are single recipes in this book worth the price of the whole book.

POPULAR MUSIC all at 10c. each, POSTPAID.

- SONGS: Honeysuckle and the Bee, My old New Hampshire Home, Southern Beauty Waltz Song, Rec-use I Love You, Dear, While the Leaves Come Duffing Down, Way Down in the Old Palmetto State, My Old Kentucky Home, Coon, Coon, Coon, You tell me Your Dream, I'll tell you Mine, You, None But You.

- INSTRUMENTAL: When Knighthood was in Flower Waltzes, The Mayflower Waltzes, Janice Meredith Waltzes, Jolly Goller's March and Two-step, Cotton Pickers' March and Two-step, Cambrake Revels Cake walk, Ragtime Spasm Cake walk, Dance of the Brownies, Liberty Bell March, Jolly Good Time March.

For more write to

Warner's Bookstore,

BRANDON, MAN.

Western Manitoba's Great Reliable House.

NOTICES.

W. H. MALLETT, THE JEWELLER is a Brandon merchant, who will be located in one of the handsomest buildings...

A MOST IMPOSING CONCERN, established on Rosser Avenue, Brandon, and quite frequently visited by the farmer...

ONE OF THE MOST UP-TO-DATE furniture emporiums and undertaking establishments in Brandon is that of Vincent & McIverson.

WHEN IN BRANDON, the other day, a representative of the "Advocate" was shown through the extensive salesrooms and warehouses of the Warner Bookstore.

TANNING ESTABLISHMENT.—The erection of a large brick block is now under way for Carruthers & Company, tanners, of Brandon.

JOHNSON & CO., HARDWARE, BRANDON, MAN.—Absolute honesty, fair prices, progressive methods and energetic enterprise has placed the firm of Johnson & Co. in the front rank of the city retailers of shell and heavy hardware.

TREATING BLACKLEG.—Blackleg is the name of the well-known vaccine in the treatment of blackleg, furnished by the Eastern Vaccine Company, and which is in the form of a cord, string, or thread and ready for use.

NOTICES.

A farmers' elevator company has been organized at Binscarth, capital \$20,000. The directors are B. Murray, Foxwarren, R. J. Hogg, P. J. McIntosh, F. Rice, M. S. Scarth, all of Binscarth.

The partnership hitherto existing between Phillips & McAdam has been dissolved by mutual consent, and the agencies will in future be conducted by Jas. McAdam, who has taken into the business Harry Willsner, who will have charge of all matters connected with the office. Mr. McAdam has started on a tour of the country for the purpose of adding to the already good trade he has been doing for the several firms whom he represents.

THE THEO. NOEL CO., OF CHICAGO, proprietors of the Vita-Ore mineral treatment, make an extensive announcement elsewhere in this issue.

LOADING PLATFORMS.

The following list of loading platforms will be built at stations of C. P. R. and C. N. R. during the summer, so as to be ready for the season's crop: Arcola, Ashdown, Arrow River, Baldivy, Balgonie, Bredenbury, Condie, Clarendon, Crandell, Clearwater, Craven, Crystal City, Cartier, Dunrea, Disley, Dulrease, Elie, Emerson, Elgin, Fairfax, Frolyshire, Franklin, Gilbert Plains, Grenfell, Hilton, Hargrave, Indian Head, Killarney, Kirkcaldy, Lumsden, LaSalle, Minto, Margaret, Morden, Moosomin, Millwood, Melita, Ninga, Oak River, Pense, Pipestone, Qu'Appelle, Rathwell, Roundwaite, Reston, Regina, Rosser, Shanawan, Smeal Lake, Summerberry, St. Agathe, Souris, Treeshank, Wapella, Wheatland and Wellwood.

MESSRS. HUGHES & COMPANY, lumber merchants, of Brandon, Man., are beginning one of the most enterprising lumber concerns in Western Canada. They are carrying a stock of over twenty million feet of well-seasoned lumber, which was sawn in the south-eastern division of the Canadian Northern Railway during its construction, and which was delayed in shipment to them until the road was constructed. This delay afforded the lumber a chance to become well seasoned. The planing mills and factories find that the company spares no expense in maintaining the most up-to-date equipment of machinery. The rough lumber, sash, door and interior finishing, suitable both for modest households and costly palaces, are turned out. This firm does a great trade with the farmer since the farmer is permitted to purchase direct from the manufacturer without any middleman's profit. We inspected the quality of the material that Hughes & Company are selling and find it very superior. We wish this concern every prosperity, and can highly recommend it to our readers as being perfectly reliable.

AN OLD COMPANY INCORPORATED.—On May 1st, 1902, E. W. Gillett Co., Ltd., succeeded the old established Canadian business of E. W. Gillett, of Chicago. The new company has a capital of \$350,000, fully subscribed and paid, and the shareholders are principally wholesale and retail grocers in business in Canada. The direct and personal interest of the shareholders of this successful concern has been shown in a marked degree. The increase in sales during the short time the company has been organized has already caused them to secure additional premises, fully as large as they are now occupying, which will increase their capacity for the production of their various lines of goods, viz. Magic Baking Powder, Gillett's Perfumed Yeast, Royal Yeast, etc. The company is doing a large business in Manitoba and the West to the coast, but with the increased facilities they will, no doubt, be able to double their western trade. The officers of the company are: Mr. E. W. Gillett, president; Mr. Wm. Dobbie (who has managed the business for 16 years), general manager and treasurer; and Mr. Geo. Hepburn, secretary. The whole office and factory staff are Canadians and British subjects, and the company is, in fact, an all-Canadian one. The E. W. Gillett Co. are firm believers in prater's ink. This policy has made their goods easy to sell and has built up a prosperous and profitable business.

GOSSIP.

James Smith, sales superintendent at Brandon for Alex. Gallraith, of Jamesville, Wis., has been doing a rushing business in the sale of imported Clydesdales in the Wheat City. Mr. Smith received, last week, a cartload of the finest specimens of Clydesdales that has been imported into Brandon for some time, many of which had been sold long before the cart arrived. It is the custom of the Gallraith Company to import the best horses that are to be found in "Auld Scotia," and with such stock we have every hope for a vast improvement in the farm horses of the Northwest.

STOCK JUDGES FOR BRANDON FAIR.

The following judges have been secured by the Brandon Fair Board: Horses—J. T. Hepburn, Calgary; Dr. Ruthford, Ottawa; Cattle—J. C. Spill, London; Poultry—J. C. Spill, London; Swine—S. Butterfield, Winnipeg.

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You can own an Alexandra without its costing you a cent. The machine will pay for itself in returns before you have paid a cent on it, and will pay twice over in the satisfaction you will receive from its use.

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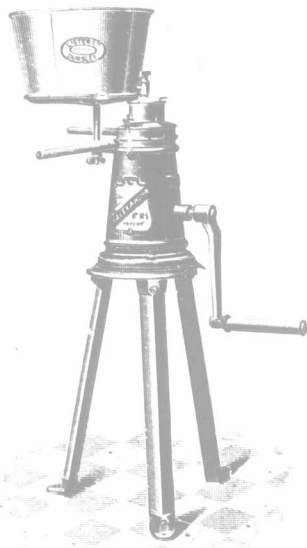
will save you money, time and labor. Make you more money from your cows, more money for your pigs, more money for your labor. You are going to buy a cream separator some time if you farm in the Northwest: why not purchase an Alexandra now and get the best—the one that wears less and lasts longest?

Write us to-day, or call on our local agent for terms and prices.

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I WOULD RESPECTFULLY CALL ATTENTION TO THE GREAT MICA ROOFING

which for cheapness, durability and ease of application for dwellings, stores, factories, barns, stables and out-houses, steep or flat roofs, cannot be equalled. It has been tested for the past eleven years, and its qualities—wind and water proof, and resistance to severe frost contraction—have established it as second to no other roofing material. It is manufactured in Canada, especially to meet climatic conditions here. The C. P. R. use it in large quantities from Winnipeg to Vancouver and Fort William. This roofing does not need any wires or other strings to hold it together.



Winnipeg, July 19th, 1901. Dear Sir,—I have no hesitation in stating that the "All Wool Mica Roofing" handled by you is a first-class material. Our new office at the mill, oatmeal mill, engine house, and roof over the new engine at the mill, have all been roofed with this material, and it has given good satisfaction. (Signed) W. W. OGDEN MILLING CO. E. W. Thompson, Gen. Mgr.

Mica Paint No. 3 preserves tin roofs, covers well, will stop, without fail, leaking tin roofs as nothing else can do. Mica Paint No. 2 preserves shingles from warping, splitting, gathering moss; will not rust, crack or peel off.

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GOSSIP.

The project of the Brandon Fair, to be held under the auspices of the Western Agriculture and Arts Association, July 29th to August 1st, at Brandon, Man., is a liberal and varied one and should attract a large entry of exhibits and a large attendance of visitors. The Brandon Fair has invariably been a successful affair, and visitors from the East and West find pleasure and instruction in its programme of events. Mr. P. J. Clark, Brandon, Man., is the Secretary and Manager.

The Shorthorn cow White Heather, illustrated in this issue, was bred by Mr. J. B. Manson, Killbuck, Aberdeenshire, and is one of the Killbuck Beauty tribe, which have gained considerable fame as prizewinners in the hands of Mr. Manson and other Scottish and English breeders. She was exhibited with much success last year by her present owner, Mr. J. Deane Willis, winning the championship as best Shorthorn cow of any age at the Royal Show at Cardiff, and has been winning first prizes this year in nearly every contest she has been entered for. Her sire was Merry Marsk (1854) by William of Orange, and her dam is Beauty 21th, by Morton (53330).

The excellent roan four-year-old bull Bismarck, illustrated on another page of this issue, is one of the stock bulls in the extensive herd of high-class Shorthorn cattle maintained on the 3,000-acre Thorndale farm of Mr. John S. Robson, of Manitoba, Manitoba. He is a bull of fine quality and character, being sired by Maxon 24864, of the Beauty Roan tribe, by British Flag, a Knellar Crimson Flower bull by the noted Barnpton Hero, whose dam, the Cruickshank's-bred Imp Mimilus, was a daughter of the immortal Champion at England, the Nestor of the Sittaton herd and the most potent influence in the evolution of present-day Shorthorns of approved type. Bismarck is associated in the herd with two other excellent sires, one of which is the roan Royal Judge 29200, by the Champion Judge, by Imp. Royal Sator, bred by W. S. Mair, of Upperville, Royal Judge's dam was Roan Mary 26728, bred by Hon. John Dryden, was sired by Commodore, by Imp. Venusgarth, and out of Imp. Lady Marorie, bred by Mr. E. Cruickshank. The other stock bull is the red three-year-old Challenge 30462, by the first-prize-winning Cuthness 22065, and out of the Imp. Missie 112nd, of the same family as Mr. W. S. Mair's great cow, Missie 153rd, sold for \$6,000 at Chicago last December, the highest-priced cow living. With such sires succeeding the Cruickshank's Village bull, Village Boy 52nd, and Marchmont Earl, by Imp. Graveyard, their 2nd, dam by Imp. Premier Earl, previously in service, the character of the Thorndale herd is found to go on improving and keeping up to date.

PRIZES FOR YELD CLYDESDALE MARES.

Owing to a printer's error, cash prizes in the Clydesdale class for mares with or without foals by side, were omitted from the list of the Winnipeg Industrial. In Class L, section 2, in addition to the Association's diploma for best mare, any age, cash prizes of \$15, \$10 and \$5 are offered. While it is well to encourage breeding stock, it is also to be remembered that some mares will not breed every year and a yield mare out of course, be shown in a much better shape than a brood mare, and thus a class for dry mares will add greatly to the display in this important class. It is hoped that the omission from the prize list will not diminish the competition.

BIG SHIPMENTS OF OATS FROM THE PACIFIC COAST.

It is reported that Brackman Ker have received from the Imperial Government another order for a third cargo of oats to be shipped to South Africa to feed the cavalry horses of the British army. Mr. D. R. Ker would not confirm nor deny the report. From other sources it is learned that a third cargo has been ordered, making the 9th up to date to be loaded on this coast. Brackman-Ker are now loading the steamer Ganges at Vancouver with oats shipped from their large elevators at Edmonton and the steamer Cyndeline, which is discharging a cargo of bags and oats from Columbia at San Francisco is to come to the Royal Roads shortly for orders before proceeding to Vancouver to load. It has not been learned which vessel has been selected for the third cargo to be loaded by the Victoria firm. The steamer Askani, a 4,000-ton carrier, has been chartered to load a cargo of 2,000 tons of oats at Portland for the Imperial Government. The Askani left Coronel on Saturday for Portland to load her cargo for South Africa. Brackman, Guthrie & Co.'s Seattle office have sold 2,000 tons of oats to the British Government, which is to be shipped to South Africa by sailing vessels, and are dickering for the sale of another 2,000 tons. An idea of the amount of money expended by the Pacific Coast on these five cargoes can be had when it is stated that the amount paid for the purchase of the 2,000 tons of oats was between \$60,000 and \$70,000. The purchase of such a large quantity of oats has started the price of the commodity and from \$25 a ton to \$30 a ton, a new boom demand for the Pacific coast, the latter.

SOME GOOD REASONS WHY YOU SHOULD OWN A SEPARATOR, AND BUY AN

# EMPIRE Machine

**T**he marvel of the farmer's wife.  
**H**as all the latest improvements.  
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**N**o impurities in the cream it produces.  
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**N**one should be without it; it will pay for itself in a year.  
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**S**atisfy yourself that the Empire machine is the best.  
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**P**onder well before you decide,  
**A**nd when you have decided,  
**R**esolve to have an "EMPIRE," at once,  
**A**nd write Manitoba Cream Separator Co., Limited,  
**T**o send you one by first train.  
**O**rders without delay.  
**R**emember, "Procrastination is the thief of time."

We offer the EMPIRE strictly on its merits. It does the work we promise it will do. It does the work the purchaser expects it to do. It does this with the least expenditure of labor, the least expense for repairs, and the best general results.



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WINNIPEG, MANITOBA.



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Haven't thought much about it, have you? We have, and are prepared to please you in any style or price you may desire. Drop in and let us show you. We can and do please the hard to please customer. Among the best watches we sell are Waltham, Elgin, Hampden, and our special, the Hamilton. We do only first class work in our repair department. We have pleased others, why not you? Orders received by mail have our prompt attention. Remember the place.

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it is worth while looking up the best place where you will get the FINEST DRUGS and the best attention.

Compounding for Physicians. Prescriptions and Family Recipes a specialty.  
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### NOTICE.

**PORK PACKING PROSPERS.**—The firm of J. Y. Griffin & Company is composed of J. Y. Griffin, Winnipeg, and E. M. Griffin, St. Thomas, Ont., and has been established in Winnipeg 22 years. It is the largest packing-house west of Toronto, and has a daily capacity of 500 hogs. Their ammonia process of refrigeration is the largest of this kind west of Toronto, and is the most complete storage in the west for butter, eggs and cheese. They have branch houses at Vancouver, Nelson, and Calgary, managed by their own employees, and require very large quantities of butter, eggs and cheese to not only supply regular customers throughout Manitoba and the N.W. Territories, but to supply branches at Vancouver and Nelson. The "Farmer's Advocate" is glad to learn that this firm are able to report quite a marked improvement in the quality and quantity of hogs being offered. The supply is increasing rapidly, and it seems that farmers are beginning to see that hog-raising is a profitable part of their operations, and it looks very much now as though difficulty in that direction were over. Farmers are going to go more largely into hog-raising, and it is quite natural to suppose that would be such a profitable branch of raising in Ontario and the United States, why it can be raised in Manitoba would certainly be a good thing, and present a very profitable branch of raising at present. It is not to be wondered at that the firm of J. Y. Griffin & Company, N. W. Territories, and W. T.

# MAGIC BAKING POWDER

PURE AND WHOLESOME.  
ONE POUND CAN 25¢

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TORONTO, ONT.

### BY THE WAY.

Lying north of the Assiniboine River, in townships 10 and 11, ranges 23 and 24, in Manitoba, is a fine wheat-growing and stock-raising district through which your correspondent recently travelled. Crops are all looking fine, although there are a few spots in the fields drowned out by the rain. The majority of the farmers did not finish seeding until the second week in June. Barley and oats for green feed were sown in the second and third weeks, and although it is late in the season they will still have ample time to mature. Wheat is, of course, the main crop. Still, we found a large number operating hand cream separators, showing that, as a rule, farmers are going into dairying and live stock a little more extensively than formerly. There seems to be a general feeling that it pays better to go more into live stock and less into wheat. Several breeders of pure-bred stock were visited. Among the number, Henry Tolton, who lives about 12 miles north of Oak Lake, and has gone into Shorthorns. The herd is headed by Duke of Woodworth, a fine, dark-red three-year-old, that will weigh about 1,800 pounds. Fancy Maid and Princess are two of his best cows, both fine blocky animals, and also red in color. All three won prizes at the Oak Lake Show two years ago, and also took first place as best herd. Last fall, Mr. Tolton was unable to show, owing to the wet weather and threshing conflicting with show day. He has 10 acres of Bromo grass, which has made a good growth. The Bromo is away ahead of everything else in its line this year. A few miles east of Mr. Tolton's is

Robert Tomlinson's. He has one of the finest barns in the vicinity and has invested in a few Shorthorns. He has had rather hard luck with them, having lost a couple, but has sold off most of his grade cattle and intends purchasing more pure-breds. Still further to the east we visited the farm of

Anson Dixon, who has started a Jersey herd. A year ago last March, Mr. Dixon bought three animals from W. V. Edwards, of Souris. Dean of Souris, now three years old, and two fine cows, Souris Beauty and Duchess Malone, one of which has a record of 14 lbs. of butter in one week. Mr. Dixon has been fortunate in raising three heifer calves, and expects a fourth calf shortly.

John S. Little, of Twin Grove Farm, Ryerson, has a few registered Short Lorns. He also owns some pure-bred Yorkshire hogs. One sow has had four litters between the first of March, 1901, and the first of June, 1902, and raised 37 pigs. Mr. Little is secretary for the syndicate owning Valley Prince, a steel grey Percheron. Crossing the river, we found the seeding all done and the wheat looking somewhat better than on the north side. It is worthy of note that the early-sown grain is away ahead this year. Very little stock is kept around Griswold, wheat growing being carried on exclusively. About 350 cattle were shipped from Griswold, while about 900 were shipped from Hamiota, this spring. While in this vicinity we visited the

Hanna Farm, and were hospitably entertained by E. W. Hanna. Mr. Hanna has about 500 acres in wheat, and has a fine herd of cattle, of which 14 are pure-bred Herefords, and the remainder good Hereford grades. The pure-bred cattle were obtained from J. E. Marlies, of Debeau, and consist of 5 cows, 5 calves, 23 yearlings, and the bull, Prince of Paplar Grove. Ruth Wilton and Bonnie Hugh John and Beulah, are not to be forgotten. Of the yearlings, Duchess of York deserves special mention. She is as pretty as a picture. The cattle are not a little thin, but are fine, fairly fat, and would be a credit to any breeder. Mr. Hanna keeps a few registered pure-bred mares and has a number of fine blocky colts.

Frank Chisley, five miles from Alton, has about a dozen registered Short Lorns. His bull, Wellington, he imported from Ontario, and Golden Bess, a three-year-old heifer, he says is the best anything in Manitoba. H. V. C.

# J. Y. GRIFFIN & CO.

**PORK PACKERS**

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Our PORK-PACKING ESTABLISHMENT at Winnipeg has a daily capacity of 500 HOGS.

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Wants increase of members to make the cost even lower yet;  
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AND HAS PAID ALL LEGITIMATE CLAIMS TO DATE.

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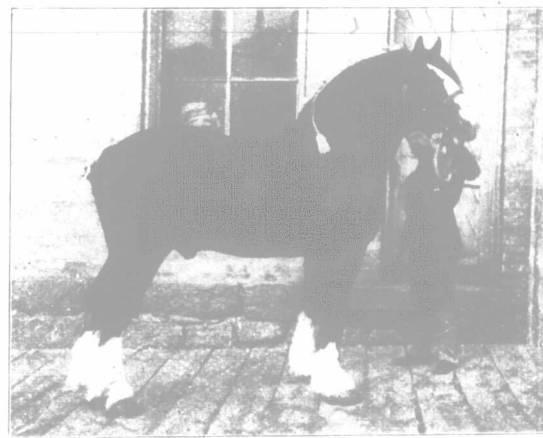
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Has supplied 75 per cent. of the Manitoba trade during last season. New importation of winners will arrive September 1st. Don't miss seeing them.

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OF ALL AGES.

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GLADSTONE, NORTH DAKOTA.

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Comprising winners at the International Live Stock Show, Chicago, 1901; also in Scotland. All must be sold to clear out. Intending purchasers should not miss this chance of having first-class individuals of the very best breeding at reasonable prices.

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BRANDON, MANITOBA.

## GOSSIP.

## TERRITORIAL RAM SALE AT MEDICINE HAT—SHEEP RECORD.

A well-attended meeting of the Board of Directors of the recently-organized Territorial Sheep Breeders' Association was held at Medicine Hat on the 23rd of June, the president, D. H. Andrews, of Crane Lake, in the chair. C. W. Peterson, secretary, suggested that arrangements might be made to organize a sale of pure-bred sheep during the coming fall. There were now very few breeders of pure-bred sheep in the country, principally owing to the absence of a regular cash market for rams, which such a sale would create. Messrs. D. H. Andrews, John A. Turner, J. A. Grant and others spoke in favor of the proposition. One of the principal objects of such a sale would also be to facilitate the exchange of sires, owners of small flocks being able to consign their discarded rams to the sale and buy others. It was pointed out that there were a great many useful pure-bred rams now on the range that had lost their ear tags, and that some difficulty would, therefore, be experienced in identifying them. In order to overcome this difficulty, a motion was passed to the effect that for the coming sale, rams to be offered should be divided into two classes. The first, accompanied by regular certificate of breeding; the second, only accompanied by owner's declaration of pure breeding to meet the cases where the identity of the ram had been lost. Upon the motion of Mr. John A. Turner, it was decided also to accept entries of pure-bred ewes. The mover stated that it would greatly stimulate the production of rams in the Territories if female stock were included in the sale. The auction sale is to be held in conjunction with the fall fair of the Medicine Hat Agricultural Society, which is to take place during the last week in September.

In framing the rules governing the auction sale, those of the pure-bred cattle sale held at Calgary by the sister association were largely followed. It was decided to charge an entry fee of one dollar per head on all sheep entered, which will entitle the owner to free transportation from his nearest railway station to the point of sale, and also to free feed and maintenance of the animal up to the time it is disposed of. The entry fee for sheep delivered on the grounds at Medicine Hat was fixed at fifty cents. It was decided to charge all purchasers a uniform fee of fifty cents per head upon all sheep to be shipped by the Association to points lying west of Moose Jaw, to assist towards covering expenses.

The feeling of the meeting was that the number of pure-bred rams in the country was greatly out of proportion to the actual requirements, and it was, therefore, agreed that rams imported from the Eastern Provinces should be admitted to the privileges of the sale upon the same conditions as those now owned or bred in the Territories. Two members present at the meeting expressed their willingness to bring in one hundred and fifty pure-bred rams from Ontario to be put up without reserve.

The question of holding a show of pure-bred sheep was then taken up, and after careful deliberation the decision was arrived at to meet the Medicine Hat Agricultural Society with a view to arranging to have the sheep section of its fall fair placed under the charge and control of the Sheep Breeders' Association. The intention was to offer prizes for breeding stock and provide separate classes open only to competition among sheep consigned to the sale, thus following the practice of the Spring Pure-bred Cattle Show, Calgary.

At a subsequent joint meeting of the directors of the local agricultural society and the Sheep Breeders' Association, the former expressed their willingness to comply in every way with the wishes of the Association and to cooperate in the best possible manner. The agricultural fair grounds were placed at the disposal of the Sheep Association, and a covered saleroom, containing the accommodation required for the sale, will be provided by the agricultural society and exhibition board.

A number of the directors were in favor of instituting "breeding trials" in the hope of encouraging Territorial shepherds to properly train their dogs. Owing to the indifferent class of dogs available, it was left in the hands of the Executive Committee to arrange these events, if found practicable.

Mr. John A. Turner introduced a motion to the effect that a record, to be called "The Western Canadian Pure-bred Sheep Record," should be started by the Association. In speaking to the motion, the mover explained that there were at present no Canadian records for the registration of pure-bred Shropshire sheep, as well as of other breeds of sheep, and that all sheep of such breeds had to be recorded in the United States. This caused needless delay and inconvenience, and a considerable sum of money was thus annually sent out of the country, for which it was felt local breeders did not receive any adequate return. Mr. Peterson was quite in accord with the object of the motion, but called attention to the fact that registration had been provided by Parliament in 1901 authorizing the Dominion Department of Agriculture to organize records for pure-bred live stock, and while in favor of the proposal, would suggest that the register be started subject to the understanding that it should be handed over to the Dominion authorities, free of charge, as soon as the necessary machinery had been provided to deal with the matter in the office of the Dominion Live Stock Commission. The fee was fixed at 25c for each record. Motion was unanimously carried.

## GOSSIP.

## THE HAMILTON SHORTHORN SALE.

The combination sale, announced in a half-page advertisement in this issue, of selected Shorthorns from seven high-class herds, to take place in the new sale pavilion of the Hamilton Stock Yards Company, on August 13th, will afford Canadian farmers and breeders the best opportunity ever offered in this country to secure foundation stock for the establishment of herds or fresh blood to replenish and build up herds that have been depleted by the great demand for good cattle in the last few years, and which promises to continue. So great has been this demand that prominent breeders have been unable to meet it from their own herds even by importing large numbers. The supply and price of desirable cattle in the Old Country has become so scarce and high that that source cannot be drawn upon as formerly, and the result is that the leading breeders in this country have to look to the herds of the smaller breeders for suitable animals to supplement their own in filling their orders, and it is well known that in this way they have largely helped the latter to find a better market for their cattle than they could otherwise do. If there were more good cattle of desirable type and breeding distributed throughout the country, this patronage could be immensely expanded, to the mutual advantage of the large and the smaller breeders, and to the detriment of no one. The difficulty of securing a sufficient supply of suitable animals has been one of the principal drawbacks in the expansion of the business, and for the encouragement of those who have small herds and comparatively unknown to fame, though as well-bred as the best, it is encouraging to know that from such herds young animals have been drawn that have sold at auction for higher prices than many of the imported animals in the same sales, as why should they not, if they are better individuals and as well bred. It makes a wide difference, however, even in pure-bred herds in finding purchasers at good paying prices, whether the stock is of approved and up-to-date type and breeding or not, and the aim and hope of the promoters of the Hamilton sale is that Canadian breeders and farmers especially may be induced to avail themselves of the opportunity to start new herds or to strengthen those they have by securing some of the good cattle to be offered on August 13th.

With the increase of population and wealth the world over, beef cattle of the right sort are bound to be in demand, at good prices, as long as grass grows and water runs. Our best markets are the British and foreign markets, and the kind of cattle that will meet the demands of those markets and bring the best prices are not the scrubs and dairy grades found so commonly on Canadian farms, which cost as much to raise as do well-bred beef grades, and sell for half the price per pound, and have only the local market for stockers and butchers' beasts to depend upon. The scarcity and high price of help on the farm is compelling more farmers to seed their farms to grass, to cultivate less land, to reduce labor to a minimum by grazing cattle and feeding on the farm what grain and hay they grow, and the only way to make the most out of this system is to grow and feed good cattle. But this class is so scarce that they find it impossible to secure a supply. The only remedy lies in grading up the stock of the country by the use of pure-bred bulls. Men of means in every section should see that their neighbors have the opportunity to use such sires at a moderate fee. By this means they may help themselves, their neighbors and the whole country. Transportation is becoming so systematized and cheapened, that distance and little figure in reaching the best markets, and it is surely the interest of Canadian farmers to cultivate the foreign market by producing the kind of cattle and other products that

(Continued on page 524.)

# DE LAVAL CREAM SEPARATORS

ARE SO MUCH BETTER THAN

## OTHER CREAM SEPARATORS

**BECAUSE**—They are constructed after the "Alpha" Disc and "Split Wing" patents, which cannot be used by any other manufacturer, and which enable De Laval machines to skim cleaner and produce a more even and more thoroughly churnable cream than is otherwise possible, at much less speed and wear, and much greater ease of operation.

**BECAUSE**—The De Laval makers have ever been first and foremost in the manufacture of Cream Separators throughout the world have ever led where others follow—their factories being among the finest machine shops in the world, and their knowledge of Cream Separators far greater and more thorough than that of any comparatively inexperienced would-be competitor.

**BECAUSE**—The one purpose of the De Laval makers has ever been the production of the best Cream Separators possible, regardless of cost, instead of that mistaken "cheapness" which is the only basis upon which any would-be competitor can even make pretence of seeking a market.

**BECAUSE**—The vastly greater sale of De Laval machines—ten times all others combined—enables the De Laval makers to do these things and much more in the production of the perfect Cream Separator that no one else could attempt.

A De Laval catalogue, explaining in detail the facts here set forth, may be had for the asking.

## The De Laval Separator Co.

Western Canadian Offices, Stores and Shops:

NEW YORK.  
POUGHKEEPSIE.  
PHILADELPHIA.  
CHICAGO.  
SAN FRANCISCO.  
MONTREAL.  
TORONTO.

248 McDERMOT AVE.,  
WINNIPEG, MAN.

You are sure of the right kind of results  
with the

# "Kelsey" Warm Air Generator

because it has many advantages over any other system, which are easily demonstrated. If interested, write us and we will tell you all about it.

THE JAMES SMART  
MFG. CO., LTD.,

BROCKVILLE, ONT.

WINNIPEG, MAN.

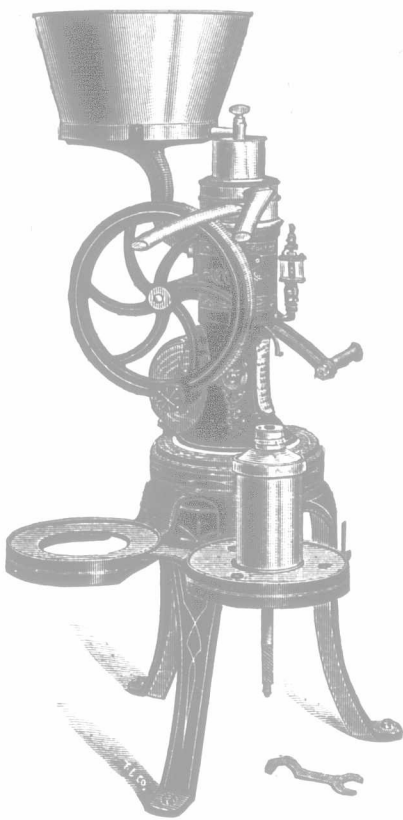
Please Mention the Farmer's Advocate.





## A Chain is Not Stronger Than its Weakest Link.

Neither is a Cream Separator a success without a perfect bowl.



A COMPARISON BETWEEN THE BOWL OF THE

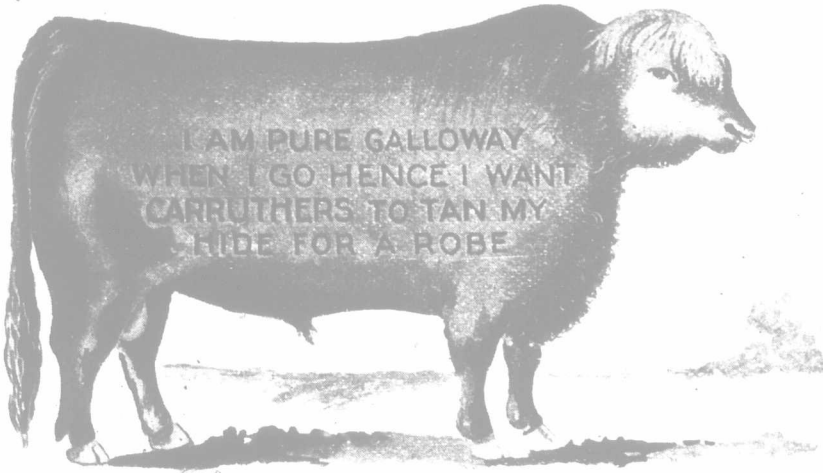
## NATIONAL CREAM SEPARATOR

and others: The National has but three parts to the bowl—no bowl could be less complicated; readily understood by anyone, and almost impossible to become out of adjustment—the latest and most successful pattern made. One great feature is **Cleanliness**.

**A Hint**—Are you going to buy a Separator with a complicated bowl? One so full of corrugations, seams, crevices, corners, discs and intricate passages that you can only clean it with the utmost care and a lot of time and patience. Do you think, after turning one of those hard-running, back-number separators for half an hour, you will care enough about the quality of your butter in spending another hour to properly clean the bowl? No, you won't! What then? The stench of the bowl is unbearable, affecting the flavor of your butter.

Buy the right kind of separator, the latest improved National, the lightest running, the closest skimming, the most convenient and simple separator made and in greater demand **Right Now** than any other on the market—a Canadian-made machine, sold with a guarantee of absolute satisfaction.

**Jos. A. Merrick,** 117 Bannatyne St., East, WINNIPEG, MAN.  
General Agent, Manitoba and Northwest Territories.  
AGENTS WANTED IN UNREPRESENTED DISTRICTS.



## We Tan Cow and Horse Hides FOR ROBES.

ALSO FURS OF EVERY DESCRIPTION.

Send for our circular in reference to custom tanning, and sample of our work on Black Cowhide.

WE ALSO MAKE FIRST-CLASS COWHIDE

## Coats, Robes, Collars, and Gauntlets.

Write for prices, etc. "See our exhibit at Brandon Fair."

**CARRUTHERS & CO., BRANDON, MAN.**

Highest prices paid for Hides, Wool and Sheepskins.

(Continued from page 520)  
fill the bill for that class and fill the pockets of the producers.

The importance, in establishing a herd, of securing a good foundation cow can hardly be estimated, and often means a difference of thousands of dollars in a decade in the sale of the produce. The herds from which the cattle to be offered at the Hamilton sale are drawn are known to be up-to-date in every respect and the breeders first-class men. A description of the animals to be catalogued is impracticable at this early date, but may be looked for in later issues of the "Advocate," but the best means of becoming acquainted with the character of the cattle is to apply early for the catalogue and have your order booked so that you will be among the first to receive it when ready for mailing. Nearly one-half the offering will be imported animals and the balance bred from imported stock direct or from good Scotch-bred and Scotch-topped families of the most approved type. A few choice young bulls will be included, and a special attraction will be the imported two-year-old bull, Imp. Wanderer's Last, bred by Mr. W. S. Marr, sired by the Cruickshank bull, Wanderer, and out of Missie 144th, by Roan Robin, who was in service in the Royal herd at Windsor, and at Collynie and Bapton Manor. Wanderer's Last was purchased at the Duthie-Marr sale in October, 1900, by Mr. W. D. Platt, at \$785, and has been in successful service for the last two seasons in the herd of Captain T. E. Robson.

### CANADIAN SHORTHORNS SELL HIGH AT CHICAGO.

At the combination sale of Shorthorns from the herds of Hon. M. H. Cochrane, Hillhurst, Que.; Hon. John Dryden, Brooklin, Ont.; W. C. Edwards & Co., Rockland, Ont., and G. Harding & Son, Wisconsin, held at Chicago, June 13th and 14th, 98 head sold for an average of \$536.10. The 82 head contributed by the three Canadian breeders sold for an average of \$527 each. The bulls in these lots, with few exceptions, brought much lower prices than the females and reduced the average.

The 15 females contributed by Messrs. Harding made an average of \$602. There were no bulls in their offering. Mr. Cochrane's offering of 18 head made the highest average—\$683.80. Included in his lot was the imported yearling bull, Golden Mist, by Golden Sun, which sold for \$2,010 to W. H. Dunwoody, Minneapolis, Minn.; and the roan Canadian-bred yearling bull, Good Morning, by Joy of Morning, which brought \$1,800, and would doubtless have gone much higher but for the fact that he had gone off a bit in shipping. He was bought by Baker & Baker, Oregon, Ill. These were the highest-priced bulls in the sale, the third highest being Mr. Edwards' Imp. Lord of the Manor, a roan two-year-old, which sold for \$675.

Mr. Dryden is to be especially congratulated on the fact that his contribution of 19 head, all of which were bred by himself, made the splendid average of \$765, while the highest price for a female in the Canadian contingent, \$1,000, was made by his yearling heifer, Victoria Countess, sired by his stock bull, Imp. Collynie Archer, by Scottish Archer; Geo. Allen, of Alton, Ill., being the buyer. Mr. Dryden's Victoria Arch, a red two-year-old heifer by the same sire, was sold for \$910 to Mr. J. L. Platt, Hamilton, Ont., who also bought the yearling heifers, Cowslip and Golden Fancy, both by Collynie Archer, at \$925 and \$615, respectively.

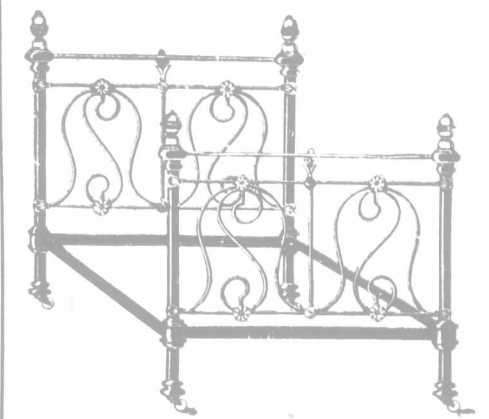
The 45 head contributed by Messrs. Edwards & Co., 29 of which were imported, sold for an average of \$448.90, the highest-priced female in their consignment being Imp. Camellia, by Cornerstone, which fell to the bid of E. S. Kelly, Yellow Springs, Ohio, at \$875. John Miller & Sons, Brougham, Ont., bought, at \$740, the roan yearling heifer, Roan Missie, bred by G. D. Fletcher, Bingham, Ont., and sired by Spicy Robin. The highest in the entire sale for a female, \$1,200, was paid for Messrs. Harding's Imp. Collynie Wispie, by Mr. E. S. Kelly. Imp. Lady Clara 6th of the same herd and sired by Silver Plate, sold for \$1,000.

**VINCENT & MACPHERSON,**  
The Leading Western Undertakers and Embalmers.  
**Rosser Avenue, Brandon.**  
Write for furniture catalogue.

**DAIRY KING BUTTER MACHINE**  
The best in the world for the money. It is the most PRACTICAL, USEFUL, SIMPLE and ECONOMICAL CHURN there is made. By its use you can make the best creamery butter in from five to eight minutes. Guaranteed as represented or money refunded. AGENTS WANTED. Where we have no agent we will send a churn at agents' price to introduce it. Write for catalogue and prices.  
**ECONOMY SUPPLY CO.,**  
511 Main Street, Kansas City, Mo.

## AN IDEAL HOME

Can be made your home, if you consult us about FURNITURE.



Comfort need not mean extravagance if you buy direct from us. Our Big Illustrated Catalogues are mailed free to any address; we issue three of them: No. 1, all lines of Furniture, Iron Beds, etc.; No. 2, Baby Carriages, Wagons, etc.; No. 3, School Desks. Hundreds of homes furnished yearly by us in the West.

## Scott Furniture Co.

THE WIDE-AWAKE HOUSE.  
276 Main St., WINNIPEG, MAN.  
(ESTABLISHED 1870)

**Cattle Labels**  
SEND DIRECT TO US.  
Save time and money by patronizing home industry.  
**A. B. CAIL,** 499 Main St., Winnipeg, Man.  
TRUCKS RIGHT SEND FOR SAMPLE.

**RIVEREDGE FARM.**  
**Shorthorn Cattle and Standard-bred Horses.**  
Herd headed by Siltton Stamp (imported). Females bred from or tracing to Windsor (imported).  
**A. TITUS,** WAPINKA, MAN.  
**Breeder of Shorthorns.**

Imp. Baron's Pride 2885 at head of herd, B. P. Rocks and Bronze turkey eggs for sale.  
**J. H. KINNEAR,** SOURIS, MAN.  
**SHORTHORNS.**

Will sell either of my stock bulls, Robbie O'Day 22672 or Variety 3119. Also a number of young bulls, some good enough for herd leaders. **YORKSHIRES.** A few young sows to farrow in May. Orders booked for spring pigs. **P. L. Y. M. O. U. T. H. ROCKS.** Some choice cockerels. **RYE GRASS.** Large quantity of clean, bright seed, also clean Flax Seed.

**Andrew Graham,** Forest Home Farm, Pomeroy, Man. Carman and Roland shipping stations.

## GALLOWAYS:

Bulls and heifers for sale.  
APPLY TO  
**T. M. CAMPBELL,**  
"HOPE FARM."  
St. Jean Baptiste, Manitoba.



# G.P.R. LANDS

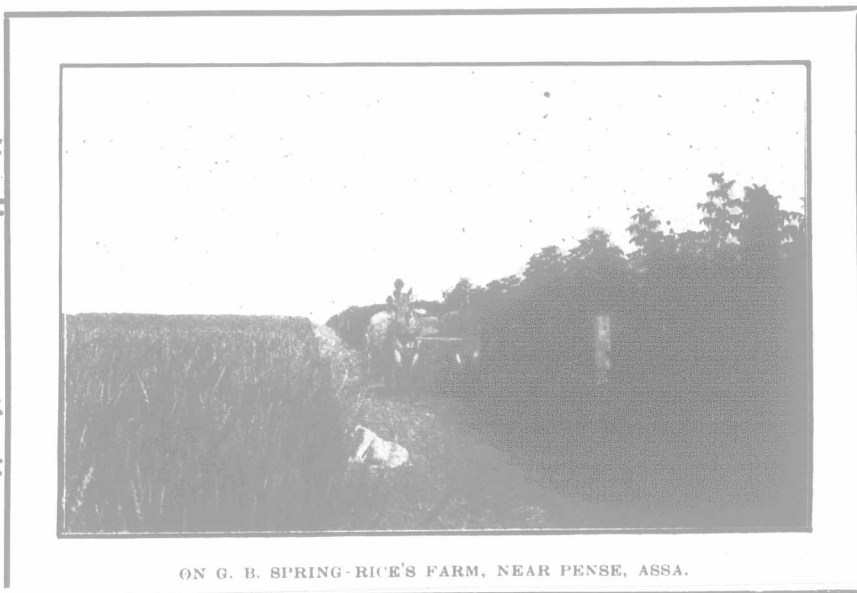
**Discount  
for  
Cash.**

If land is paid for in full at time of purchase a reduction in price will be allowed equal to 10 per cent. on the amount paid in excess of the usual cash installment.

Interest at 6 per cent. will be charged on overdue installments.

THE CANADIAN PACIFIC RAILWAY COMPANY have 16,000,000 acres of choice farming lands for sale in Manitoba, Assiniboia, Saskatchewan and Alberta. Manitoba lands and Assiniboia lands east of third meridian, \$3 to \$6 per acre. Lands west of third meridian, from \$3.00 to \$5.00 per acre.

**\$5.00**



ON G. B. SPRING-RICE'S FARM, NEAR PENSE, ASSA.

**LANDS**

**Discount  
for  
Cash.**

If land is paid for in full at time of purchase a reduction in price will be allowed equal to 10 per cent. on the amount paid in excess of the usual cash installment.

Interest at 6 per cent. will be charged on overdue installments.

160 acres, or one-quarter section, of \$5 lands may be bought for settlement with a cash payment of \$119.85 and nine equal annual installments of \$100 each, which include interest at 6 per cent. Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down, and the balance in five equal annual installments with interest at the rate of 6 per cent. per annum.

For Maps and Full Particulars Apply to **F. T. GRIFFIN,** Land Commissioner, WINNIPEG.

Or with reference to Alberta lands, to WM. TOOLE, District Land Agent, CALGARY.

**CHOICE  
Shorthorn Bulls  
FOR SALE.**

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

**THE FOREMAN, Castle Farm, Teulon, Man.**  
Or C. C. CASTLE, WINNIPEG, MAN.

**LAKESIDE SHORTHORNS FOR SALE**

3 young bulls, 11 to 14 months old; quality and prices right.

**R. McLENNAN, HOLMFIELD, MAN.**

**Lakeview Stock Farm.  
SHORTHORNS FOR SALE.**

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

**THOMAS SPEERS,  
OAK LAKE, MANITOBA.**

**D. FRASER & SONS,**

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

**Home Bank Farm  
OF LARGE ENGLISH BERKSHIRES**

Are still to the front. Some grand sows, bred for the spring trade. Have two fine litters ready to ship about March 15th. Now booking orders. Call or write for prices.

**Jos. Laidler, Neepawa, Man.**

**YORKSHIRES!**

Bred sows all sold. Orders taken for spring pigs from large and matured sows. Send your orders in early and have first choice. Price: \$10 each, \$18 a pair. Address:

**KING BROS., Wawanesa, Man.**

PLEASE MENTION FARMER'S ADVOCATE.

Pave the way to victory by investigating the merit of **Chambers' Bared Rocks.** They are always among the winners at the leading shows. Also Buff Rocks (Nugget strain), B. Hamburgs, and S. C. B. Leghorns. Eggs, \$2 for 13; \$1 for 30. **Thos. H. Chambers, Brandon, Man.**

**English Flat Coated Retriever Pups  
TWO MONTHS OLD.**

By Imp. Winnipeg Carlo (C. K. C. 5593) } Champion Right-away, Tattle.  
Imp. Nita (C. K. C. 5390) } Black Drake.  
Pharsala.  
Carlo is a winner of 7 first prizes and 9 specials.

**A. H. M. CLARK, 55 Sherbrook Street, WINNIPEG, MAN.**



**IN THE DAIRY QUEEN  
TRIPLE CREAM SEPARATOR**

The water is not mixed with the milk. The most perfect and latest improved Separator made. Pays for itself in a short time. Separates all the cream without labor. Men and Women can make good profits. Where we have no agent we will send a separator at agent's price to introduce it. Write for catalogue and prices. Economy Supply Co., 501 Main St., Kansas City, Mo.

**NORTHERN PACIFIC.**

OFFICE 391 MAIN STREET  
**THROUGH TICKETS**

TO ALL PORTS  
EAST, WEST, AND SOUTH.

**DETROIT LAKE EXCURSION TICKETS**

on sale from June 1st.

**\$10.00 FOR THE ROUND TRIP.**  
GOOD FOR 30 DAYS.

Splendid facilities for hunting, fishing, boating, etc., and the very best accommodation. If you want an enjoyable holiday this is the place. Trains leaving Winnipeg daily at 1:45 p. m. from Canadian Northern Railway station, Water street. First-class equipment, including Pullman and dining cars.

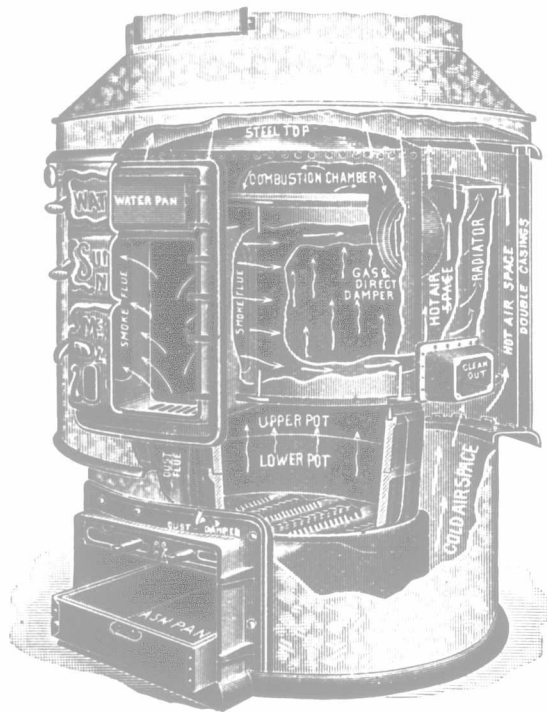
For further information call on Canadian Northern Ticket Agent, No. 131 Main St., Winnipeg, or write:

**CHAS. S. FEE,**  
General Passenger and Ticket Agent, St. Paul, Minn.,  
or  
**H. SWINFORD,**  
General Agent, 391 Main Street, Winnipeg.

# "Sunshine" Furnace

SPECIALLY BUILT TO HEAT A FARMER'S HOME

BECAUSE:



SOLD BY ALL ENTERPRISING DEALERS.  
WRITE FOR CATALOGUE.

## The McClary Mfg. Co.,

LONDON, TORONTO, MONTREAL,  
WINNIPEG, VANCOUVER; ST. JOHN, N. B.

It burns either wood or coal—wood can be used in fall and spring, and coal in severe winter weather.

Has double feed-doors, which will admit rough chunks of wood.

The dome is constructed entirely of heavy steel plate, which makes it a more effective heater than the cast-iron dome put in common furnaces.

The "Sunshine" will extract more heat from the same amount of fuel than any other furnace, and no other good furnace is sold so cheap.

### GOSSIP.

Colwill Bros., of Newcastle, Ontario County, have for a great many years been prominently identified with the breeding of Shorthorn cattle and Tamworth hogs. Their Tamworths have a continental fame from the many prizes they have won at the leading shows in Canada, notably Toronto, London and Ottawa. The stock boar is Colwill's Choice 1313, by Rob Roy 932; dam Thrifty Girl 1242. As to his form and quality, nothing more need be said than that he won first prize in 1899, first in 1900, and first and sweepstakes, 1901, at Toronto, and showed a score of times at county shows and was never beaten. All the young stuff in the pens is sired by him, and out of such noted sows as Evelina 1515, by Aldrich 951; dam Elora 1261, by Glenside Karl; her winnings are 2nd at Toronto, 1900, and 2nd with four of her produce, same show, same year. She also won the same prize at Toronto last year, being the mother of the four sows that won the prize for best Tamworth bacon hogs. Another of the choice dams is Newcastle Queen 2090, also Newcastle Maid of Honor 2089, both daughters of Evelina, and by the old stock boar. These sows won 2nd and 3rd places at Toronto last fall as sows under two years, and together with the stock boar made the trio that won 2nd place for sweepstakes. Then there is another pair, Newcastle Belle and Newcastle Girl, both of which are exceptionally nice and will be competitors for honors at Toronto this fall, as sows under two years. They have a number of show animals of both sexes on hand and for sale. Mr. Colwill reports sales so brisk and the demand so active that orders are booked ahead, long before the sows are old enough to remove. In Shorthorns this firm is showing a small but select herd of Lavenders and Miss Synes, headed by the massive, well-proportioned and richly-bred bull, Brave Baron 23259, sired by Imp. Indian Chief; dam Baroness Aberdeen 2nd 15064, by Imp. Heir Apparent. This bull has proven himself a sire of worth, his stock being a blocky, low-down lot. One two-year-old heifer in the herd deserves special mention, as she is a good one, belonging to the Miss Synes family and sired by Village Hero 19274; dam Beaver Meadow Lass, by Imp. Oxford. There is nothing on hand for sale in the herd, so that an extended description of the animals will be left till some future time.

HORSEMEN! THE ONLY GENUINE IS

## GOMBAULT'S CAUSTIC BALSAM.

None genuine without the signature of  
*The Lawrence, Williams & Co.*  
Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY or FIRING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by express, charges paid, with full directions for use. Send for free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

IMP. CLYDESDALES AND AYRSHIRES.

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

ROBT. NESS & SONS, Howick, Que., P.O. & Sta.

Newton's HEAVE, COUGH, DIS- TEMPER & INDIGESTION Cure

A veterinary specific for WIND, THROAT, & STOMACH TROUBLES. Strong Recommendations. \$1.00 per can, dealers or direct.

Newton Horse Remedy Co. (D), Toledo, O. Trade supplied by Lyman Bros. & Co., Toronto, Ont.

THE  
**Great West Saddlery Co.**  
(LIMITED)

make the best and most perfect fitting Horse Collars and Harness in Canada. Our Saddles and Strap work are Gems of perfection of the leather workers art. Branches and agencies everywhere. Ask your dealer for our Horseshoe Brand Horse Collars, and take no other make if you want the best.

**WINNIPEG, MAN.**

PLEASE MENTION FARMER'S ADVOCATE.

ATTRACTIVE COMBINATION SALE  
OF

# 65 HEAD SHORTHORN CATTLE

IMPORTED AND CANADIAN-BRED, SCOTCH AND SCOTCH TOPPED  
IN THE SALE PAVILION OF THE HAMILTON STOCK-YARDS COMPANY,  
HAMILTON, ONTARIO, ON

## Wednesday, August 13th, 1902.

THE CATTLE, WHICH ARE ALL YOUNG OR IN THE PRIME OF LIFE, ARE SELECTED FROM THE FOLLOWING WELL-KNOWN HERDS:

W. G. PETTIT & SON, Freeman, 12 Head.

W. D. FLATT, Hamilton, 10 Head.

ROBERT MILLER, Stouffville, 10 Head.

CAPT. T. E. ROBSON, Iderton, 6 Head.

J. M. GARDHOUSE, Highfield, 5 Head.

JAMES DOUGLAS, Caledonia, 5 Head.

GEORGE AMOS, Moffat, 6 Head.

A. C. PETTIT, Freeman, 4 Head.

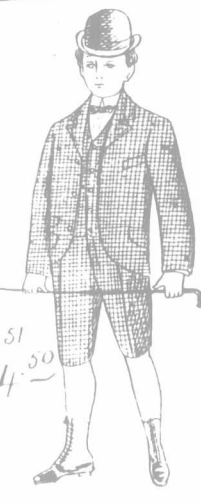
H. SMITH, Hay, 5 Head.

Among the bulls included in the sale is the imported WANDERER'S LAST, chief stock sire for the last two years in the herd of Captain Robson. The females of breeding age will have calves or will have been bred to the high-class sires in the several herds represented. Look for notes in Stock Gossip.

Catalogues will be issued in due time, for which applications may be booked with

## MR. W. D. FLATT, HAMILTON, ONTARIO.

AUCTIONEER. COL. F. M. WOODS, ASSISTED BY CAPT. T. E. ROBSON AND OTHERS IN THE RING.



**60c. Boys' Pants**

MADE OF FINE TWEEDS

Better than you usually get for \$1.00.

INCLUDE 10c. FOR POSTAGE.

**60c.**

**The F. O. Maber Co., LIMITED,**  
WINNIPEG, MANITOBA.

**DR. PAGE'S ENGLISH SPAVIN CURE**



For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by DR. FREDRICK A. PAGE & SON, 7 and 9 YORKSHIRE ROAD, LONDON, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., DRUGGISTS, 171 KING STREET, EAST, TORONTO, ONT.


**British Columbia Farms.**

If you are thinking of going to the Pacific Coast, try British Columbia. No extremes of temperature. No cyclones. No dust storms. No cloudbursts. No droughts. No blizzards. Fertile land, and the heaviest crops per acre in Canada; we make this statement without fear of contradiction. The land is cheap, and the markets and prices for farm produce the best on the Pacific Coast. Write for farm pamphlet to THE SETTLERS' ASSOCIATION OF B. C., BOX 540, VANCOUVER, B. C.

When writing please refer to this paper.

**Spring Brook Holsteins and Tamworths**

A few choice 2-year-old heifers, 1 yearling and 2 calves, all sired by my imp. prizewinning bull, Judge Akkrum De Kol 3rd, and out of rich-bred cows. Stock strictly choice. A few Tamworths to offer. A. C. HALLMAN, Breslau, Box 26, Waterloo Co., Ont. (Formerly New Dundee.)




**High-class Herefords**

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

A. S. HUNTER, DURHAM, ONT.


**The Sunny Side Herefords.**

Imp. Sunny Slope Tom 1st at head. Lord Wilson, Carlfield, Grove 3rd, Diplomat and Anxiety blood represented. For sale: 5 bulls from 9 to 30 mos., and 20 choice young cows and heifers. Inspection and correspondence solicited. O'NEIL BROS., Southgate, Ont. Lucan station, G. T. R. Iderton station, L. H. & B.



**INGLESIDE HEREFORDS.**

A few choice heifers and young bulls by Mark Hanna, sweepstakes bull at Pan-American. Shropshire Sheep and Tamworth Swine. H. D. SMITH, Compton, Quebec, Ont.



**High Park Stock Farm**

Galloway Cattle. A few choice young heifers and bulls for sale. Inspection invited. SHAW & MARSTON (Late A. M. & R. Shaw) P. O. Box 294, BRANTFORD, ONT.

**JOHN DRYDEN, BROOKLIN, ONTARIO,**

BREEDER OF CRUICKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP.

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

**"ORCHARD HILL" SHORTHORNS.**

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


**JAMES A. CRERAR, Shakespeare, Ont.**

BREEDER AND IMPORTER OF HIGH-BRED SCOTCH SHORTHORNS

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

**ROSEVALE SHORTHORNS**


Are of the up-to-date sort. We have for sale a number of young bulls and heifers of all ages. Marengo Heydon Duke (imp.) heads the herd. om W. J. SHEAN & CO., Owen Sound, Ont.



**Shorthorns and Berkshires**

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

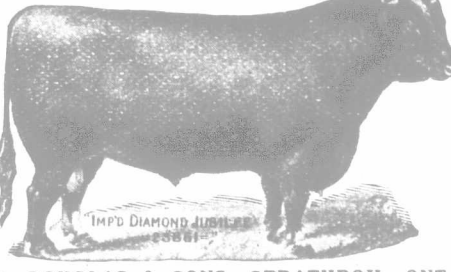
**SHORTHORNS (IMP.)**



Cows and heifers, imp. and home-bred. Bulls, imp. and home-bred—all ages. Representing the fashionable blood of Scotland. om EDWARD ROBINSON, MARKHAM P. O. & STN.

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

**FOR SALE:** 5 Scotch Shorthorn Durhams (bulls), 5 to 16 months; 5 young cows and heifers. Berkshire pigs, both sexes. Prices reasonable. "Camden View Farm." A. J. C. SHAW & SON, Thamesville P. O. om



**T. DOUGLAS & SONS, STRATHROY, ONT.,** BREEDERS OF Shorthorns & Clydesdales

100 SHORTHORNS TO SELECT FROM. Herd bulls (imp.) Diamond Jubilee = 28861 = and Double Gold = 37852 =. May offering: Six grand young bulls, and cows and heifers of all ages. Clydesdales: One 3-year-old stallion, and one 4-year-old mare (in foal). Farm one mile north of town. om

**J. & W. B. WATT, SALEM, ONTARIO**

(POST AND TELEGRAPH OFFICE), BREEDERS OF—

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

Our herd contains such families as Matchless, English Ladies, Mildreds, Village Buds, Missies, Stamfords, Mysies, Vanillas, Clarets, and Marthas. The imported bulls, Scottish Peer and Coming Star (a prizewinner at Chicago in 1901), now head the herd. Farms 2 miles from Elora Stn., G. T. R., and C. P. R., 12 miles north of Guelph. om

**Shorthorns, Berkshires, Leicesters**

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

**SHORTHORN BULLS FOR SALE:** A choice lot of Shorthorn bulls from 10 to 16 months old, sired by Imp. British Statesman (63729) = 20833 =; and cows of the Mara family. They must be sold at once. Prices away down to suit customers. FITZGERALD BROS., Elmvale Station, G. T. R. Mount St. Louis P. O. om

**SHORTHORNS, SHROPSHIRE, COTS WOLDS**

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

**SHORTHORNS.**

Fashionably bred, of both sexes and all ages. Nothing reserved. H. PARKER, Durham P. O. and Station.

**LAKE VIEW STOCK FARM.**

SCOTCH SHORTHORNS, both sexes, all ages. As good as the best. Meaford Station, om JAMES BOWES, G. T. R. North. om Strathclair P. O.

**SHORTHORNS FOR SALE.**

Two good young bulls fit for service. Also females all ages. Herd headed by (imp.) Spicy Marquis. om JAMES GIBB, Brookdale, Ont.

**Maple Lodge Stock Farm.**

ESTABLISHED 1851. SHORTHORNS.—First-prize milking strains, best Scotch breeding. Young bulls and heifers for sale. LEICESTERS.—A grand lot of ewes, bred to our imported rams, and a few choice rams, now for sale. A. W. SMITH, Alisa Craig Station, Maple Lodge P. O., G. T. R., 3 1/2 miles. om

**SHORTHORNS FOR SALE:** 6 yearling bulls, cows and heifers, all ages. Cows and heifers in calf to Sir James, deep milkers. om H. E. HIND, Hagersville P. O. and Station, G. T. R. and M. C. R.

**HIGH-CLASS SCOTCH SHORTHORNS**

of the following families, for sale at moderate prices: Village Girls, Broadhooks, Beaufort Roses, Missies, Clarets, Marr Floras, Nonpareils, Minas and other choice families. Write for catalogue. Shropshire rams and ewes for sale as usual. om ROBERT MILLER, Stouffville, Ont.

**WINDMILLS**



The CANADIAN AIRMOTOR TORONTO ONT. WIND ENGINE & PUMP CO.

We do not make a windmill for ornament. The

**CANADIAN AIRMOTOR**

robs the wind of its power, and gives it to you at your BARN OR PUMP. Does more hard work than any other farm implement. om ONT. WIND ENGINE & PUMP CO., LIMITED, TORONTO, ONT. Manitoba Agents: BALFOUR IMPLEMENT COMPANY, Winnipeg, Man.

**BISSELL'S DISK HARROW**

has a peculiar knack of working dry, hard land or tough, stubborn soil better than any other cultivator. Write for full particulars. T. E. BISSELL, Large sizes made for Northwest farmers. om ELORA, ONT.



**SCOTCH SHORTHORNS.**

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



**Shorthorn Cattle, Lincoln Sheep**

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramsdens, and other Scotch families. Lincolns won more than half the money and first for flock at the Pan-American; International, Chicago, 1901 and 1902. J. T. GIBSON, om DENFIELD, ONT.

**W. C. PETTIT & SONS**

FREEMAN P. O., ONT., IMPORTERS AND BREEDERS OF

**Scotch Shorthorns and Shropshire Sheep,**

Make a Special Offering for May and June:

One of our imp. stock bulls, 3 years old, red; one imp. bull, 2 years, roan; two bulls imp. in dam, 15 months; four bull calves from imp. cows, 12 and 11 months; four home-bred bulls by imp. bulls, 15 to 18 months; seventy-five imp. and home-bred cows and heifers, all ages. Catalogues on application. om Burlington Jct., G. T. R. Stn., Tele. & 'Phone.

**SHORTHORNS.**

THORNHILL HERD. ESTABLISHED 27 YEARS. Imp. Royal Member and Sailor Champion now at head of herd, which are all bred on straight Scotch lines, and are of the up-to-date kind. Present offering: some choice young bulls. om REDMOND BROS., Millbrook Sta. and P. O.

**Mercer's Shorthorns**

Are represented by Missies, Stamfords, Floras, Claret Princesses, Red Roses, Fashions, Crimson Flowers, and Matchless families. Headed by Village Squire 2883, a son of Abbottsford. Stock of both sexes and all ages for sale. om T. MERCER, MARKDALE P. O. & STN.

**GEO. ISAAC, BOMANTON, ONT.,**

BREEDER AND IMPORTER OF **Scotch Shorthorn & Clydesdale CATTLE & HORSES.**

Forty-one head of Shorthorns arrived in our quarantine 20th March. One Clydesdale stallion for sale. om COBURG STATION, G. T. R.

**SITUATION WANTED.**

A thoroughly practical man, who has a wide knowledge of breeding and raising horses and cattle for show purposes, will be at liberty in July, and would like to find suitable employment. Has had years of experience in England, also in Canada and the States. Thirty-five years of age. Englishman and single. Address: STOCKMAN, care Farmer's Advocate, WINNIPEG, MAN.

**500 HORSES**

FOR SALE.

Good range band; Draft and Coach bred. Can be seen at

**High River Horse Ranch,**

HIGH RIVER, ALBERTA.

**SPECIAL OFFER IN BARCLAY'S PATENT ATTACHMENT**

FOR THE CONTROL AND CURE OF BALKING AND KICKING HORSES.

We will send our Attachment, charges paid one way, to any part of Canada, C. O. D., and subject to examination and approval of method. When satisfied it will do all we claim for it, pay the express agent our price, \$5.00. If not, the return freight will cost only a few cents. Our article will control any vice known to a horse, and is giving splendid satisfaction wherever used. Full illustrations and directions are enclosed. A boy can adjust it, and it can be used with any harness, vehicle or implement. If you have a troublesome horse, or a colt you wish to break in, write at once to The Barclay Mfg. Co., Brougham, Ontario.



**CLYDE AND SHIRE HORSES**

SHORTHORN CATTLE, LEICESTER SHEEP. One extra good Shorthorn bull, 16 months old, red, by Imp. Prime Minister, g. sire Imp. Warfare. My motto: "The best is none too good."

**ROSEDALE STOCK FARM, HIGHFIELD P. O.**

MALTON, G. T. R.; WESTON, C. P. R. 4 1/2 Rosedale is fifteen miles west of Toronto.

**WM. SMITH, COLUMBUS, ONT.,**

IMPORTER AND BREEDER OF om Clydesdale Horses & Shorthorn Cattle

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

PLEASE MENTION FARMER'S ADVOCATE.

### ESTABLISHED 1855 TAYLOR'S FIRE & BURGLAR SAFE

HAVE MANY PATENTED IMPROVEMENTS NOT FOUND IN OTHER MAKES THAT WILL WELL REPAY AN INVESTIGATION BY THOSE WHO DESIRE TO SECURE THE BEST SAFE  
**J. & J. TAYLOR,**  
TORONTO SAFE WORKS,  
TORONTO.  
MONTREAL VANCOUVER  
WINNIPEG VICTORIA

## Free Treatment

DR HOPE'S



You can't get well without it.

For LIVER KIDNEY and NERVE Troubles.

The three most prevailing causes of death in the present century, The Dr. Hope Medicine Co., Limited are so positive of the efficacy of their Treatment that they send Free Samples and their large treatise entitled "How to Live Long" on receipt of name and address. Write at once to

**DR. HOPE MEDICINE CO., LIMITED, TORONTO, ONT.**

### QUEENSTON HEIGHTS SHORTHORNS SCOTCH AND SCOTCH TOPPED

In service: Derby (imp.) = 32057 = ; Lord Montalis, by Collynie Archer (imp.) = 28860 =. Some choice heifers and young cows with calf at foot or in calf to imported bull at moderate prices.

**HUDSON USHER,**  
QUEENSTON, ONT. om  
FARM 3 MILES NORTH NIAGARA FALLS

For Sale: Very heavy, massive cows of Bates and Cruickshank breed. Two-year-old heifers in calf. Stock bull, Imperial 2nd, No. 28883. Bull calf, 11 months (Cancopper Boy 2nd = 39878 =), dam Flora = 32974 =; also dark red heifer calves. John McFarlane, Dutton, Ont. om

### HOLWELL MANOR FARM SHORTHORNS, SHROPSHIRE, YORKSHIRE, SCOTCH COLLIES.

om  
**D. G. GANTON, ELMVALE, ONT.**  
**CHARLES RANKIN, WYEBRIDGE, ONT.**  
Importer and breeder of  
Shortorns, Oxford Downs and Berkshire Pigs  
Young stock always on hand. om

For Sale: TWO CHOICE SHORTHORN BULLS, registered: sires, British Hope 60900 and Royal Charlie 60118. Also Yorkshires and Redk shires, both sexes. Write: om  
**C. & J. CARRUTHERS, Cobourg, Ont.**

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

#### GOSSIP.

The extensive stock barns and sheep pens at Fairfield Farm, Ilderton, Ont., property of Messrs. J. H. & E. W. Patrick, the noted breeders and importers of Lincoln sheep, were totally destroyed by fire on the night of June 24th. The fire was caused by a trapdoor falling on Mr. E. W. Patrick and causing a lantern which he carried to explode. The show sheep were saved, but the loss on the buildings, which were not recently finished and were of a very fine class, will be heavy, as the amount of insurance, though not definitely known, is said to be but light compared with their cost.

In the list of prizewinners in officially authenticated Holstein-Friesian 7 days' butter tests in America for 1901-02, in the class of cows 3 years old and under 3 1/2, Calamity Jane 2nd, owned by Geo. Rice, Currie's Crossing, Ont., won third prize, her test commencing April 6th, 1902, 12 days after calving, and her record was 441.3 lbs. milk, an average of 63 lbs. per day, testing 4 per cent., equivalent to 19 lbs. 5.6 ozs. butter 80 per cent. fat, or 18 lbs. 85 per cent. fat. In the class for cows 2 1/2 years and under 3, Alta Posch, owned by James Kettie, Norwich, Ont., won 1st prize, yielding, in January, 21 days after calving, 586.2 lbs. milk, an average of over 83 lbs. per day, testing 4.3 per cent., equivalent to 27 lbs. 1.2 ozs. butter 80 per cent. fat, or 25 lbs. 4.3 ozs. 85 per cent. fat.

#### RICHARD GIBSON'S SALE A SUCCESS.

The auction sale of Shorthorns from the Belvoir herd of Mr. Richard Gibson, of Delaware, Ont., on June 24th, was a very satisfactory one. There was a good attendance of breeders and farmers, and the useful lot of cattle offered in good breeding condition, as taken off the grass, with no special fitting, were readily taken at fair prices, the bidding being brisk and steady from start to finish. A substantial and tastefully-spread luncheon in the spacious rooms of the beautiful residence was well enjoyed by the company. The sale was held under the shade of a grove of trees in the woodland pasture and was admirably conducted, everything being fairly represented, and not a hitch of any kind occurring during the entire disposal. Capt. T. E. Robson officiated as salesman and did good work, keeping up the interest throughout without a break. No fancy or sensational prices were expected and none were made, but fair value was given and received in every case. The cows were generally nursing calves, and, therefore, not in high flesh, and a few were a little advanced in years, while the calves in nearly all cases being sold separately from their dams, makes the prices and the average appear smaller than might be expected, but on all hands it was considered a good sale, and Mr. Gibson expressed himself as well satisfied, the average on all sold being close to \$115. Among the principal purchasers were Mr. Thos. H. Kelly, of Owatonna, Minnesota; Mr. James Wilson, Innisfail, Alberta; Mr. W. D. Platt, Hamilton; Mr. A. J. C. Shaw, Thamesville, and John Trestain & Son, Strathburn. Following is a list of the sales and purchasers:

- Wimple's Lass, 3 years; Jos. White, St. Mary's.....\$200
- Mina 5th, 3 years; A. J. C. Shaw, Thamesville..... 180
- Petted Lorne, 3 years; James Wilson, Innisfail, Alta..... 180
- Charming Sylph 6th, 5 years; T. H. Kelly, Owatonna, Minn..... 160
- Charming Archness, 2 years; J. T. Gibson, Denied..... 150
- 5th Barrington Lady, 9 years; T. H. Kelly..... 150
- Lady Minto, 3 years; James Wilson..... 130
- Soldier's Bride, 7 years; W. D. Platt, Hamilton..... 130
- Queen of the Links, 2 years; T. H. Kelly..... 125
- Belvoir Lorne, 8 months; John Trestain & Son, Strathburn..... 125
- Charming Sylph 9th, 1 year, T. H. Kelly..... 125
- Queen of the Tournament, 3 years; T. H. Harding, Thorold..... 115
- Scottish Archness, 3 years; W. G. Pettit & Son, Freeman..... 110
- Christmas Card, 7 months; W. D. Platt..... 110
- Roan Lorne 3rd, 9 years; T. H. Kelly..... 105
- Charming Sylph 8th, 2 years; J. A. McKillop, West Lorne..... 100
- Belvoir Mina, 5 months; James Wilson..... 100
- Scottish Maiden, 1 year; Geo. Hill, Delaware..... 100
- Waterloo Princess 4th, 3 years; Percy Seabrook, Konoka..... 100
- Fame, 7 years; W. D. Platt..... 95
- Charming Sylph 4th, 10 years; T. H. Kelly..... 95
- Queen of Scots, 1 year; A. W. Smith, Maple Lodge..... 80
- Famous 5th, 8 years; E. V. Docker, Walbridge town..... 80
- Famous 6th, 8 months; John Trestain & Son..... 80
- Rose of Middlesex, 4 years; James Wilson..... 80
- Fair Rosamond, 2 years; W. J. Evans, Lawrence Station..... 65
- Belvoir Fame, 7 months; W. D. Platt..... 65
- Rose of Scotland, 1 year; T. H. Kelly..... 60
- Queen of the Bar, 6 months; R. H. Harding..... 40
- Scott's Bowman, 9 months; A. J. C. Shaw..... 130

# Horn Fly Oil

Keeps flies off animals.  
Kills vermin,  
A splendid disinfectant.



Sold in Cans (with directions)—

QUART, each, 25c.; doz., \$2.70. GALLON, each, 60c.; 1/2 doz., \$5.50  
BY EXPRESS OR FREIGHT AT PURCHASERS' EXPENSE.

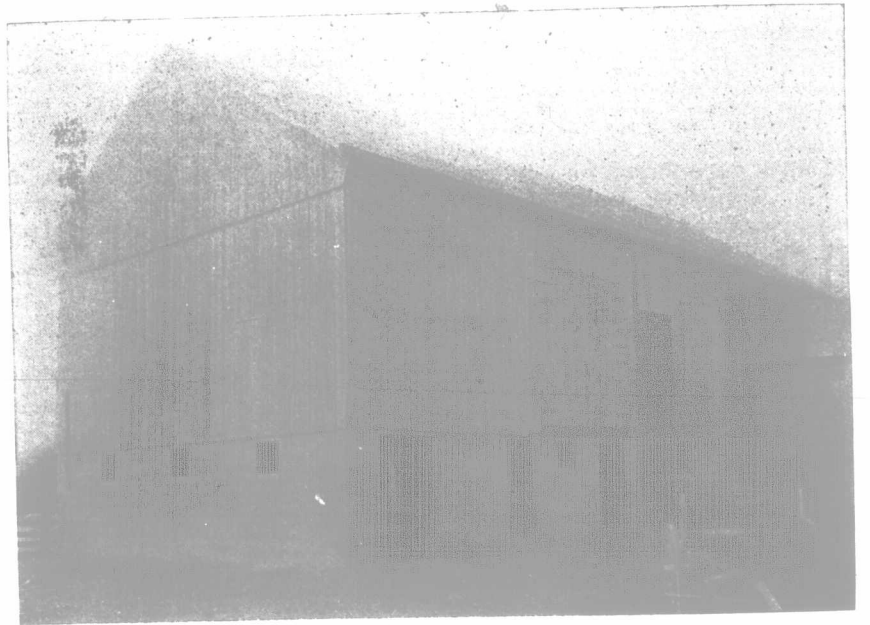
Ask your dealer, or send direct to **WM. RENNIE, ADELAIDE and TORONTO.**

"IT IS WITH PLEASURE THAT I TESTIFY TO THE GOOD QUALITIES OF YOUR

## Thorold Cement

FOR BUILDING PURPOSES."

A WELL-TO-DO FARMER NEAR ALVINSTON THIS TIME.



BASEMENT BARN OF JOHN BLACK, NEAR ALVINSTON, ONT.  
Walls 36 x 60 feet, 8 feet high.

Mr. Black used Thorold Cement in both basement walls of barn and floors of stables.  
ALVINSTON, ONT., Oct. 22, 1900.

#### ESTATE OF JOHN BATTLE, Thorold, Ont.:

DEAR SIRS.—It is with pleasure that I testify to the good qualities of your Thorold Cement for building purposes. I have just completed an eight-foot wall under my barn, 36 x 60 feet. I have also floored all my stables with it, using in all 150 barrels of cement. The work was done under the supervision of William Hand, a man who I am pleased to recommend to any of my fellow farmers contemplating erecting concrete walls or floors.

I remain, Yours truly, JOHN BLACK.

#### ESTATE OF JOHN BATTLE, THOROLD, ONTARIO. MANUFACTURERS OF THOROLD CEMENT.

"We do not place our cement to be sold on commission."

#### A Chance to Make Money.

I have berries, grapes and peaches a year old, fresh as when picked. I used the California Cold Process. Do not heat or seal the fruit, just put it up most anything; can put up a bushel in ten minutes. Last year I sold directions to over 120 families in one week; anyone will pay a dollar for directions when they see the beautiful samples of fruit. As there are many people poor like myself, I consider it my duty to give my experience to such and feel confident anyone can make one or two hundred dollars round home in a few days. I will mail sample of fruit and full directions to any of your readers for nineteen (19) two-cent stamps, which is only the actual cost of the samples, postage, etc. Francis Casey, St. Louis, Mo. Advt.

#### SPRINGBANK FARM. Shortorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale.

om **JAS. TOLTON, WALKERTON, ONT**

#### 10 SHORTHORN BULLS

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

**John Miller & Sons, Brougham P.O.**  
CLARKMONT STATION, C. E. R. ONE.

#### GREEN GROVE SHORTHORNS:

I am now offering a few heifers, Clafets, Floras, and one Missie; also a choice year-old bull, by Aberdeen of Markham. om  
**W. O. MILSON, CORING P.O. and MAREDALE STATION.**

**NO HUMBUG** PERFECT IN-STRUMENTS in 1  
Horn and Sheep V. Sheek Marker and Calf Delimeter. Stops swine of all ages from rooting. Makes different ear marks, all species of same blade. Extracts Horns. Testimonials free. Price \$1.50 or send \$1 for trial. Get marks, send balance. Pat'd U.S. Mar. 22, 1898. Canad. Dec. 17, 1898. om  
**FARMER BRIGHTON, Fairfield, Iowa, U. S.**

#### SHORTHORNS (imported)

One imported and one Canadian-bred bull. A few cows and heifers. om  
**THOS. RUSSELL, EXETER, ONT.**

**SHORTHORNS**  
Scottish and Scotch-topped. War Eagle—27691 at best of herd. Young bulls, cows and heifers for sale. By arrangement Coldwater, Midland branch, G. T. R. Write for prices, om **S. DUNLAP, Eady P. O., Ont.**

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

# Shorthorn Bulls.

Good ones. Choicely bred. Moderate prices. Send for bull catalogue. Also Scotch-bred cows and heifers.

**H. SMITH, HAY, ONTARIO.**

Exeter station on London and Wingham branch of the G. T. R. adjoins the farm. om

# Hillhurst Shorthorns AND HAMPSHIRE DOWN SHEEP.

THERE are few herds on the continent that can boast of three as good stud bulls as Joy of Morning 153003, Scottish Hero 115553, and Scottish Beau 115552. These are all imported bulls, of the richest breeding, and right well do they reflect the possibilities of the future character of the Shorthorns being bred at Hillhurst. The breeding cows at Hillhurst are of Scotch and English breeding, and are especially noticeable for their size.—*Live Stock Indicator*, May 15, 1902.

**M. H. COCHRANE, COMPTON CO., P. Q.,**  
G.T.R., 117 MILES EAST OF MONTREAL. om HILLHURST STATION.

# Scotch Shorthorns

BREEDING FEMALES ALL IMPORTED.

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

**H. CARGILL & SON,**

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

# ARTHUR JOHNSTON

BREEDER AND IMPORTER OF

## SHORTHORNS ONLY.

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

GREENWOOD, ONT., P. O. AND TELEGRAPH OFFICE.

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

# Rapids Farm Ayrshires.

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



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

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

Come and see or write for prices.

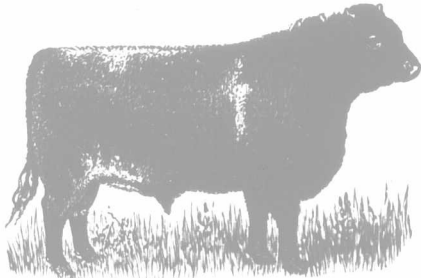
**Robert Hunter, Manager**

for W. Watson Ogilvie, Lachine Rapids, Quebec.

# Spring Grove Stock Farm.

Shorthorn Cattle AND Lincoln Sheep.

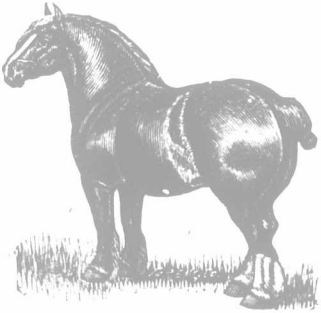
HERD prize and sweep-stake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wanderer's last, last of the



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

**T. E. Robson,**  
ILDERTON, ONT.

# Clydesdales and Shorthorns



FOR SALE: Seven choice young stallions, and several young mares and fillies. Five young bulls and bull calves, and thirty-five excellent young cows and heifers. Mostly registered in the American Herdbook. om

**JOHN BRIGHT, MYRTLE, ONTARIO.**

### GOSSIP.

Messrs. Alfred Mansell & Co., live-stock exporters, Shrewsbury, England, have recently shipped per SS. Lycia, from Bristol, 13 Shropshire yearling rams; 1 two-shear ram, and 16 Shropshire ewes of the same age, bred by and selected from the famous stock of Mr. A. E. Mansell, the consignee being Mr. Robert Miller, of Stouffville, Ont.

The sale of Jerseys and Berkshires from the Hood Farm herds at Lowell, Mass., June 11th and 12th, was fairly successful, the large number of 154 head of Jerseys sold, old and young, averaging \$116 each. The highest price, \$875, was paid by Mr. Thos. Lawson, Scituate, Mass., for the eleven-year-old cow, Figgis 76106, who was shown at Toronto Exhibition in 1899 and placed third in the prize list for matured cows by the American judge, but was worthy of a higher position, as she is a model dairy cow, with a record of 329 lbs. 14 ozs. milk and 19 lbs. 15 ozs. butter in 7 days. Figgis goes to the home of Flying Fox, the bull sold for \$7,500 at the Cooper sale in May last. Two other cows sold for \$500 and \$530 each. Fifty Berkshires of various ages sold for an average of about \$50 each. The highest price for a boar was \$150, and for a sow, \$130.

Minster Stock Farm lies about nine miles from Campbellford station on the G.T.R. The owner, Mr. Richard Honey, is making a specialty of Holstein cattle and Yorkshire hogs. That he is succeeding, a look over his crack animals would convince the most sceptical. The grand cows, Minster Rose, Queen of Minster, Minster Maid and a dozen others, are a sight to see. They have large, even, mellow udders, and a milk record of from 57 to 75 lbs. per day. A better class of Holsteins would be hard to find. The present stock bull is Hector De Kol 2142, bred by A. C. Hallman, sired by Akkrum De Kol 3rd 1765; dam Waterloo Daisy's Pearl 3345. He is an extra nice young bull, very evenly built, with a splendid upper and lower line. There are a couple of bull calves three months old, by Lady Tonnyson's Sir Booker 939, one of which has extra quality and the man who gets him will be lucky. All told, there are a half dozen heifers, some in milk and some in calf, sired by Sir Booker's young heifer by Netherland Tiranian Baron 1162. Some of these heifers, together with the two bull calves, are for sale.

The Yorkshires are unexcelled for length, depth and evenness, and no man better understands the breeding of bacon-type Yorkshires than Richard Honey. His present stock boar is Summerhill Dictator 6960, by Look Me Over 2612; dam Imp. Summerhill Lily 3554. This boar was chosen on account of his perfect form, and his stock are his living images. A number of both sexes, various ages, are held for sale.

Mr. Honey reports sales of both cattle and hogs as unprecedented. He has shipped stock all over Canada during the last year, and every buyer has reported as being more than pleased with his purchase, which is a guarantee of square dealing.

Belvedere Jerseys are known all over the continent. Representatives of this noted herd can be found in every Province in the Dominion and almost every State of the Union. The owner, Mrs. E. M. Jones, of Brockville, Ont., is a proud possessor of some two dozen medals (gold, silver, and bronze), as well as a silver tea service and silver cup, which she won at the leading shows, including Toronto, London, Ottawa, Montreal, Guelph, and Brockville; in fact, her show-ring record is one of almost unbroken success. The herd now numbers 46 head, at the head of which stands the massive, well-built bull Gold Prince, by Prince of Belvedere; dam Lily May of Brockville. This bull is an exceptionally heavy animal for a Jersey, and stands on the shortest kind of legs. His skin is fine as silk and yellow as saffron. As a stock bull he has few equals and no superiors. Next in service is Laird of Belvedere, by same sire and out of Lady of Belvedere. He is also an extra-built fellow, but not as heavy as Gold Prince. The breeding cows of the herd are all butter-makers, as the following records of a few of them show: Lily Dochia, 15 lbs. 4 ozs. 7 days; Orphia, 15 lbs. 2 ozs. 7 days; Maud, 14 lbs. 9 ozs. 7 days; Hazel, 8 lbs. 6 ozs. 9 months after calving; Gananoque Belle, 8 lbs. 2 ozs. 9 months after calving; Martha, 8 lbs. 9 months after calving; Lady Star, 9 lbs. 4 ozs. 8 months after calving; Alice, two-year-old, 4 lbs. 1 oz. in 34 days; Maelan, two-year-old, 4 lbs. in 34 days; Gertie, two-year-old, 4 lbs. 3 ozs. in 34 days; Sweet Lily May and Golden Butterly, also heifers, 4 lbs. 3 oz. in 34 days. No wonder Mrs. Jones enjoys a national reputation as a breeder of Jerseys. There is now on hand for sale, 1 year-old bull, 1 seven-months-old bull, 2 bull calves two months old, 4 heifer calves three months old, 4 heifers nine months old, 3 year-old heifers, 3 two-year-old heifers in calf and several cows in milk. Sales for the last year were distributed over Pennsylvania, Ohio, New York, British Columbia, Manitoba, Ontario and Quebec.

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

### Ridgedale Farm Holstein-Friesians for Sale.

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

### LAWNRIDGE STOCK FARM.

Jerseys for Sale. Yearling bull and bull eight months old. Registered cows and heifers of choicest breeding and individuality. Some fresh and others coming in soon. 100 head to choose from. om

**J. I. CLARK,**

Norval station: G. T. R. Norval P. O.

**JERSEYS FOR SALE.** A few choice Jersey bulls and bull calves for sale at very low prices. Choice breeding; good colors. Write for prices. om  
**W. W. EVERITT, CHATHAM, ONTARIO.**  
"Dun Edin Park Farm," Box 555.

**BURNSIDE JERSEYS.** For Sale: Two-year-old bull, Champion of Burnside; 1st prize Western Fair, London, last year; sire John Bull of Grovesend; dam tested 43 lbs. milk daily, 18 lbs. butter in a week. Yearling bull by Champion. Also young cows, heifers and calves. Five miles from London. J. A. Lawson, Crumlin, Ont. om

### FOR SALE: A SPLENDID LOT OF Jersey Cattle.

41 HEAD TO CHOOSE FROM.

Close descendants of my most noted prizewinners, and closely related to many animals I have sold that have won easily in the Northwest and all over Canada. My shipments last summer ranged from Manitoba to State of Delaware, U. S. om

**MRS. E. M. JONES,**  
BOX 324, BROCKVILLE, ONT., OAN.

### 72 Head of High-class Jerseys 72

IN THE BRAMPTON JERSEY HERD NOW FOR SALE. Two yearling bulls of first-class dairy breeding and sure prizewinners. Seven bull calves, the best we ever had. Also a large number of cows and heifers. We have what you want. Come and see, or address, stating what you want: om

**B. H. BULL & SON, BRAMPTON, ONT.,**  
C. P. R. and G. T. R. stations within 2 miles of farm.

### F. L. GREEN,

BREEDER OF

### Jersey Cattle and Yorkshire Pigs.

Choice stock of each sex for sale. om

PICKERING STATION, G. T. R. GREENWOOD P. O.  
CLAREMONT STATION, C. P. R.

### Wm. Willis, Newmarket, Ont.

Breeder of A. J. C. C. Jerseys and registered Cotswold sheep. Have yet two fine young bulls from Count, fit for service; also Yorkshire swine. om

### FOR SALE:

Three grandly-bred Ayrshire bull calves, 12 to 15 mos. old. Also young calves, by Napoleon of Auchenbrain (imp.), whose dam has a record of 72 lbs. of milk per day. A few choice young Berkshire and Yorkshire sows could be served before shipping. Collie pups, from Perfection Queen. Address— om

**T. D. McCALLUM,**  
Nether Lea, om Danville, Que.



**J. YUILL & SONS**

Meadowside Farm, Carleton Place, Ontario. Breeders of Ayrshire cattle, Shropshire sheep, Berkshire swine, and Barred Plymouth Rocks. A fine lot of the long Large English Berkshires for sale, ready to ship. om

### THE ONTARIO VETERINARY COLLEGE

(LIMITED).

TEMPERANCE ST., TORONTO, CANADA

Affiliated with the University of Toronto.  
Patrons: Governor-General of Canada, and Lieut.-Governor of Ontario. Fee \$65.00 per session. Apply to ANDREW SMITH, F.R.C.V.S., Principal. 18-2-y-om

### Tredinnock Ayrshires,

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

Farm close to St. Anne Station, Quebec. G.T.R. & C.P.R., 20 miles west of Montreal. om

**Ayrshires and Yorkshires** A yearling bull and several choice calves from heavy milkers, fit for exhibition purposes. Three Yorkshire boars fit for service; three sows ready to mate, also a number of young pigs fit to ship. om **ALEX. HUME, MENIE, ONTARIO.**

EUROPEAN ADVERTISEMENTS.

Ayrshire HERD OF 150 cows and heifers, bred from deep milkers, with large teats, of a commercial stamp. Established over half a century. J. & A. Wilson, Boghall Farm, Houston, Renfrewshire, Scotland.

PEDIGREE AYRSHIRES. Cows and heifers, all bred from prizewinning stock at the leading shows. Robert Wilson, Mansurrae, Bridge of Weir, Renfrewshire, Scotland.

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

WALTON HERD OF PEDIGREE PIGS. The property of Sir Gilbert Greenall, Bart., Walton Hall, Warrington, England.

This herd is unrivalled for its true type, large size and strong constitutional vigor. It is the premier herd in England at the present day. Its show-yard career is unique, the champion prize for the best Large White pig at the R. A. S. E. having been won by pigs bred in the herd in 1896, '97, '99 and 1901, besides leading prizes too numerous to mention at all the principal agricultural shows in England. A choice selection of boars and sows for sale. Inspection invited. All purchases carefully shipped. For particulars, apply to the Manager, MR. J. HALLAS, Higher Walton, Warrington, England. Railway stations:—Warrington (Bank Quay) per L. & N. W. Ry.; (Central) per Midland, G. N. or G. C. Ry. Telegrams, "HALLAS Higher-Walton."

W. W. CHAPMAN, Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London.

American Leicester Breeders' ASSOCIATION.

A. W. Smith, Pres., Maple Lodge, Ont. Pedigrees now being received for Vol. I. For information, blanks, etc., address:

A. J. TEMPLE, Sec., CAMERON, ILL., U. S. A.

PRIZEWINNING COTSWOLDS. Imported and home bred stock, prizewinners at all the leading fairs. EUGEN F. PARK, Box 21, Burgessville, Ontario, Canada.

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

BROOKS & LANGMAID, COURTICE P. O. SIX MILES FROM ONTARIO STATION, O. T. R.

CHAS. GROAT, BROOKLIN, ONT., OFFERS FOR SALE

Cotswold Ewes and Ewe Lambs of good quality and breeding. Also a 3-year-old (4-year-old till) from imported stock, registered No. 3925. A Shorthorn heifer calf 8 months old from imported stock, Meadow Flower strain. Write for prices.

Dorsets and Chesters. Young stock in Dorset Sheep and Chester White Hogs of good quality for sale, reasonable. R. H. HARDING, THORNDALE, ONT.

FAIRFIELD LINCOLNS. Imported ewes and lambs. Car supply show flocks.

J. H. PATRICK, ILBERTON, ONT., CAN. SUMMERHILL OXFORDS. Present offering: A choice lot of ram lambs and ewe lambs. Also 50 extra nice yearling ewes. A. PETER ARKELL & SONS, Teeswater P. O. and Station.

LINDEN OXFORDS. A choice lot of ram lambs (yearlings) and a few two and three shear rams fit for show and to head pure bred flocks; imp. and home bred, well selected, good quality.

GOSSIP.

English Jersey fanciers are enthusiasts. They had the best-attended ring-side in the cattle section at the Bath and West of England Show, last month. It was a grand class of cows that battled for the prizes. "Surely entries of such dimensions, deserve better recognition in the prize list," says the London Farmer and Stock-breeder.

Mr. H. J. Davis, Woodstock, Ont., reports the following recent sales of Shorthorns. To Messrs Kuntz & Son, Fremont, Ohio, eight head of fine Scotch Shorthorns, among the lot being two fine Crimson Flower heifers, one Buckingham heifer, two Buchanan Lassies, and a fine show cow and one Miami heifer; to Robert Miller, Stouffville, a Bracelet cow and heifer calf, also a rightly-bred Duchess of Gloster four-year-old cow.

The U. S. Bureau of Statistics has published a table giving the number of steers on farms and ranches in the cattle-raising States, which shows the available cattle supply of the West on April 15th. The total of all ages, one to four years, for the thirty-three States totals 11,113,598. The census of 1906 gave 12,372,424 for the same States, which would give a decrease of 1,258,826 head. The five leading cattle feeding States—Iowa, Illinois, Kansas, Nebraska and Missouri—show a decrease of 1,121,864.

W. S. Carpenter, Simcoe, Ont., importer and breeder of Shropshire sheep, in ordering a change of advertisement, writes: "My Shropshires are in the pink of condition and produced an excellent return in lambs, giving 140 per cent. My stock rams, Ruddington Knight (imp.), has proved a grand sire, the lambs being low-down, blocky fellows and woolled to perfection. The Mills and Mansell ewes imported last summer have proved excellent breeders, and their lambs will make a grand acquisition to the flock, which now numbers 100 head. The shearing rams I am offering for the fall trade are a choice lot; plenty of wool and character and sired by imported ram, Chancellor, of Harding breeding."

Springvale Stock Farm is in County of Durham, Ont., about 5 miles north of the town of Cobourg, and is the property of Mr. A. E. Hoskin, breeder of Shorthorn cattle and Friesian horses. Mr. Hoskin is one of the wide-awake, energetic farmers of Durham, and on his model farm of 250 acres are magnificent buildings surrounded by acres and acres of orchard of choice fruit, while the stables, which are commodious, are up-to-date in every thing that pertains to the health and comfort of his splendid animals as well as to the facility, ease and economy of feeding. He is also somewhat extensively engaged in breeding Yorkshire swine, of which he has a goodly number. The brood sows were bred by Messrs J. Featherston & Son, Stronachville, the well-known importers, which is a guarantee that there are none better than Mr. Hoskin's. Young stock always on hand for sale. The Shorthorns are imported and home-bred. Perhaps the banner cow is Imp. Nonpareil 3116, bred by A. Campbell, Inverness, Aberdeenshire, Scotland, sired by Kingore Hero 79523, by Emancipator, dam Nonpareil 32nd, by Clan Alpine, the well-known Cruickshank Copper bull. Out of her and imported in dam is the bull Mr. Hoskin is now using as stock bull. He is sired by Count Amaranth 71287, bred by Imrie, and by Count Arthur 70494; dam Sultan Amaranth, Vol. 42, by Master of the Realm. It will thus be seen that this bull's breeding is positively gold-edged. His mother is now in calf to the Miss-bred bull, Imp. Republican Count Amaranth 2nd Vol. 18, will soon be offered for sale, and is a prizewinner of perfect form and balance, pure white in color. Another of the dams is Rose 16th, Vol. 16, by Imp. Prime Minister; dam Rose 10th, by Challenge. She is a big, square, well-built cow, and is suckling a five-month-old bull calf by Indian Wave that bids fair to develop into an extra good one. Indian Wave is the sire of the heifer that sold last winter at Latta's sale in Chicago for \$775.00, and resold for \$1,000.00. Another of the cows is May of Colborne, Vol. 16, Village Boy 3th, by 32d, dam Mary of Gratton 177341, by Imp. Neptune. There is a two-year-old heifer out of her and sired by Jubelo 30450, that is a choice one. Deep, thick and even, with very short legs. She is in calf to the stock bull. This heifer and others equally as good are for sale. The Cotswolds are a superior lot, being distinguished for their clean, flat bone and perfect feet. The foundation mare was Darling 2146, by Comyn McGregor, Vol. 657, dam Boss, by Imp. General Duke. This mare won first and sweepstakes at Toronto in 1892, and proved an extra successful dam. Out of her, and sired by the great Southwestern, is Boss of Springvale, a big fine ewe that has never been beaten in the show-ring. She is nine years old and is now in calf to the Abbot, a half sister of hers, by Lowland Star, sire of the Power of Springvale. She is also a heavy ewe, and has a foal at foot by Abbot of Newark. All told, there are seven Cotswolds, all at which prices, I am sure, will be profitable to register in the American Herd Book. As soon as they are ready to register, I will advise you. Any of the above animals are on hand, and a full catalogue will be sent on request.

\$75.00 CASH EGG PREMIUMS FOR YOU

We agree to pay \$50.00 cash to man, woman or child reporting the largest number of eggs from 12 hens for any 100 days in 1902. Also \$25.00 for next largest. Hens to be fed "International Poultry Food," and sworn statement to be mailed us before Dec. 31st, 1902. Will pay promptly and mail report to every one. If two or more report the winning number the money will be paid to the one whose letter also gives the best facts in regard to raising poultry for profit. Capital, \$1,000,000. INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN.

PAGE METAL GATES are so low in price no one can afford to use wooden ones. Light, and yet strong enough to support a heavy man on the end while he swings around the circle without causing them to sag. They are neat in appearance, will last a lifetime. Will not sag nor get rickety. They are supplied with latches which allow them to be opened either way and are self acting. The only good metal gate that is low enough in price for general farm purposes. We also make Farm and Ornamental Fence, Poultry Netting, Nails and Staples. The Page Wire Fence Co., Limited, Walkerville, Ont.

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



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

Hillcrest Herd of Large English Berkshires. Consists of imported and show sows; the sires are big, long fellows, of the bacon type. For Sale: a few grand young sows from 3 to 6 months old. J. N. LAHMER, Vine, Ont, Vine Station, G. T. R.

BROAD LEA OXFORDS. WILLOW LODGE BERKSHIRES FOR SALE

We are offering for sale 30 shearing ewes of first-class quality, and 6 extra good ones in show condition; also 25 good shearing rams and 1 three-shear imported ram, and all of this season's lambs, which are a good lot. Write us for prices or come and see our flock. W. H. ARKELL, TEESWATER, ONT. Successor to Henry Arkell & Son. MILDMAT, G. T. R. TEESWATER, C. P. R.

COOPER SHEEP DIP. STANDARD OF THE WORLD for 60 years. Used on 250 millions annually. If local druggist cannot supply, send \$1.75 for #2 (100 gal. pkt. to WM. COOPER & NEPHEWS, CHICAGO.

W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT., IMPORTER AND BREEDER OF SHROPSHIRE SHEEP. An offering 19 choice shearing rams, sired by Chancellor (imp.), 1 Ram and ewe lambs for the fall trade, sired by Ruddington Knight. Also one imported shearing ram, good size and quality. Come and see them. Station One-half Mile from Farm, Wabash and G. T. R.

HIGH-CLASS SHROPSHIRE. A flock of 75, of good type. Two-shear rams, shearing rams, ram lambs, ewe lambs, fine lusty fellows. Flock headed by a fine imported ram. Write for prices. Abram Rutell, Hespeler P. O., Ont. C. P. R. and G. T. R.

SHROPSHIRE. At present I offer for sale: Shearing rams, shearing ewes, ram and ewe lambs. Also a few aged ewes. Prices reasonable. GEORGE HINDMARSH, AILSA CRAIG, ONT.

SHEEP BREEDERS' ASSOCIATIONS. American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

Imported Chester Swine. Our present offering is both sexes, not akin, as good as the country produces. Also eggs from B. P. Hawks, B. R. and C. L. Games, S. G. Dorkings, G. Sebright Bants, Mammoth Pekin ducks—all prizewinners—\$1.50 per 13. Six extra B. B. Game cockerels or pairs for sale. GEO. BENNETT, CHARING CROSS P. O. AND STATION.

Agents Wanted for the New Pictorial Stock Doctor and Live Stock Cyclopaedia, revised to 1901 with the assistance of the Professors of the Ontario Agricultural College, Guelph. The finest illustrated, cheapest and best book of its kind ever published. Large wages to agents. A full page announcement of this book appeared in the ADVOCATE of the 1st of June '01. Particulars mailed free. Address: World Publishing Co., Guelph, Ont.

YORKSHIRES AND HOLSTEINS. Best type and quality. Young stock constantly on hand. Prices right. R. HONEY, Brickley P. O., instead of Warkworth.

YORKSHIRES FOR SALE. Boars fit for service, sows in farrow and ready to breed, and young stock on hand. Prices reasonable. WM. HOWE, BRUCE CO., NORTH BRUCE, ONT.

Improved Large Yorkshires. A fine lot of young pigs on hand, sired by imported boars; pairs supplied not a kin. Boars and sows old enough to breed. Also choice Scotch Shorthorns, both sexes. Importations of Shorthorns and Yorkshires made yearly. Address: H. J. DAVIS, Importer and breeder of Shorthorns and Yorkshires, Box 290, WOODSTOCK, ONT.

NEWCASTLE HERD OF TAMWORTHS. We are now offering a dozen boars fit to wean about 1st to the 10th May. A few young sows 3 months old, from Toronto Industrial winners. Prices right for quick sale. COLWELL BROS., NEWCASTLE, ONT.

Coldspring Herd Tamworths. Offer choice Oct. and Nov. boars and sows. Also my stock boar, Advance. This is the spot for the best. Write for prices. They are moderate, quality considered. NORMAN M. BLAIN, ST. GEORGE, ONT. BRANT CO.

TAMWORTHS. Young pigs for sale, from medal-winning sow, O. A. C. 10, and other good ones, sired by Imp. Starlight, Pan-American First, and Bold Boy, Toronto winner. JOHN HORD & SON, Parkhill P. O. and Station.

COLLIE PUPPIES. Pure-bred. Also Bronze turkey and Pekin ducks. Eggs. London express. A. ELLIOT, POND MILLS, ONT.



GOSSIP.

Mr. R. H. Harding, Thorndale, Ont., breeder of Dorset Horn sheep and Chester White hogs, whose advertisement runs in our columns, offers Dorset lambs and yearlings of good quality and in healthy field condition at reasonable prices; also a few Chester boars of March litters, which he reckons good value. Write him for prices.

Dumedin Park Farm is situated in the County of Kent, about three miles south-east of Chatham, Ont., and is the property of Mr. W. W. Everitt, owner of a very choice herd of St. Lambert and combination Jerseys; also breeder of Berkshire hogs and pure-bred poultry. The 30-odd head of Jerseys has at the head of the herd that grandly-built and richly-bred stock bull, Handsome Rioter 45633, sired by Lillium's Rioter, winner of first prize at Montreal and Ottawa, 1891, and first at Toronto and Ottawa in 1892, and first at Toronto, Ottawa and Montreal in 1895; he by Rioter of Lucky Farm. The dam of Handsome Rioter is Hucio Beauty 2nd, by Canada's Sir George. As a stock-getter this bull is a grand success, as the many beautiful heifers on the farm testify. Among the splendid lot of cows is Vita of Glen Allan, by Nell's John Bull, by Canada's John Bull; dam Vita, by Great Ado. This cow has repeatedly made 1 lb. 12 ozs. of butter a day for weeks at a time. Another of the good ones is May of Glen Allan, by Marius of Glen Allan; dam Vita. Still another is Nell of Maple City, by Perfect Combination; dam Charity of Glen Rouge; and thus we might go on. Mr. Everitt's Jerseys are an exceptionally sweet lot, with their deep, heavy quarters and large, even udders. In the stables, besides the stock bull, is an eighteen-months-old bull out of the last-named cow and sired by the stock bull, that is a well-formed animal and should be in use, as he can not fail to be a successful sire. There is also another about the same age, out of the cow, Charity of Glen Rouge, and sired by 100 Per Cent., whose dam, Cheerful of St. Lambert, has a record of 22 lbs. 2 ozs. of butter in 7 days. This bull is a light fawn in color, and is one of prizewinning form. The many heifers in the herd are a choice lot, a number of which are for sale, together with the two bulls mentioned above. The Berkshires are of small and Green breeding and are of the kind that are in demand to-day. There are both sexes and all ages for sale.

Mr. W. H. Ladner, Ladner, B. C., has recently purchased in Ontario and had shipped over the C. P. R., two very excellent Scotch-bred Shorthorn bulls. The roan two-year-old, Squire Wimple 33006, was bred by Geo. B. Bristow, of Rob Roy, and used in the herd of James Lenon, of Walter's Falls, from whom he was purchased for Mr. Ladner. He was sired by Village Squire, who was bred by H. Smith, of Hay, and was got by the champion show bull, Abbottsford, of the Cruickshank Village Bud family, from which came the World's Fair champion, Young Abbottsburn. The dam of Squire Wimple is Wimple's Gem 2nd, of the favorite Kindlar Wimple family, her dam being an imported cow. He is a massive bull, weighing 2,200 lbs. at 2 years and 9 months, and is of the approved modern type, low-set, thick-fleshed and full of quality. He has been a first-prize and sweepstakes winner at Union district fairs, and has proved an excellent sire. The younger bull is the white yearling, Commander, purchased from H. Smith, Hay, sired by Hero Christopher, of the Cruickshank Lovely tribe, dam Village Pansy, of the Village Bud family. He is built on the most approved pattern, shows fine breed character and excellent fleshing qualities and promises to maintain the prestige of his illustrious ancestry, which includes prizewinners and champions galore. We congratulate Mr. Ladner on securing two such excellent bulls and predict for them a splendid record as sires and show bulls.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS. From May 16 to June 16, 1902, forty records of seven days each and two records of thirty days each have been approved. The records of seven days each average as follows: Eleven full-aged cows, age, 7 years 1 month 17 days; days after calving, 34; milk, 416 lbs.; butter-fat, 14.247 lbs.; equivalent butter 80 per cent. fat 17 lbs. 12.9 ozs., or 16 lbs. 9.9 ozs. 85.7 per cent. fat. The highest record in this class was made 129 days after the cow freshened. She produced 18.632 lbs. butter-fat, equivalent to 23 lbs. 4.6 ozs. butter 80 per cent. fat, or 21 lbs. 11.8 ozs. 85.7 per cent. fat. Four four-year-olds; age, 4 years 6 months 29 days; days after calving, 18; milk, 396.6 lbs.; butter-fat, 12.941 lbs.; equivalent butter 80 per cent. fat 16 lbs. 2.8 ozs., or 15 lbs. 1.6 ozs. 85.7 per cent. fat. Thirteen three-year-olds; age, 3 years 3 months 23 days; days after calving, 25; milk, 356.3 lbs.; butter-fat 12.064 lbs.; equivalent butter 80 per cent. fat 15 lbs. 1.5 ozs., or 14 lbs. 12.2 ozs. 85.7 per cent. fat. Two heifers in this class produced over fifteen pounds of butter-fat each, one 15.2.2 lbs., equivalent to 19 lbs. 9.4 ozs. butter 80 per cent. fat, or 17 lbs. 12.1 ozs. 85.7 per cent. fat; the other 15.344 lbs., equivalent to 19 lbs. 2.2 ozs. butter 80 per cent. fat, or 17 lbs. 1.4 ozs. 85.7 per cent. fat. Twelve two-year-olds; age, 2 years 2 months 23 days; days after calving, 21; milk, 325.2 lbs.; butter-fat 8.520 lbs.; equivalent butter 80 per cent. fat 11 lbs. 8.8 ozs., or 10 lbs. 4.9 ozs. 85.7 per cent. fat.

The Records show Competitors Admit Users Testify {that} THE U. S. SEPARATOR STANDS WITHOUT A PEER. Its record at the Pan-American Model Dairy of average test for 50 CONSECUTIVE RUNS . . . . .0138 has never been equalled by any other make. This together with its many other points of excellence and superiority, such as Easy Running, Durability, Enclosed Gears, Safety, Self Emptying Bowl, Stability, Beauty, etc., proves very conclusively that THE U. S. EXCELS ALL OTHERS. Write for free descriptive catalogues. VERMONT FARM MACHINE CO., BELLOWS FALLS, Vt., U.S.A.

GRAND'S TORONTO. Auction sales every Tuesday and Friday at 11 o'clock. Private sales every day. Usual Auction Sales of Horses, Carriages, Etc. FRIDAY, JUNE 20, AND TUESDAY, JUNE 24, and the great closing sales in old premises FRIDAY AND SATURDAY, JUNE 27 AND 28, consisting of Horses, Carriages and Buggies (New and Second Hand). Many of them will be sold for storage charges, without the slightest reserve. COMMENCING JULY 1, The sales will be conducted in the NEW PREMISES, COR. SIMCOE AND NELSON STS., which will be the best equipped sale stables, riding ring and carriage and saddlery warehouses in Canada, and possibly in America. Arrangements are being made for the formal opening events, to be held in September, when several important sales of SADDLE HORSES, CARRIAGE HORSES, THOROUGHBREDS, TROTTERS, ETC., will be held.

Walter Harland Smith, AUCTIONEER AND PROPRIETOR. OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS. From May 16 to June 16, 1902, forty records of seven days each and two records of thirty days each have been approved. The records of seven days each average as follows: Eleven full-aged cows, age, 7 years 1 month 17 days; days after calving, 34; milk, 416 lbs.; butter-fat, 14.247 lbs.; equivalent butter 80 per cent. fat 17 lbs. 12.9 ozs., or 16 lbs. 9.9 ozs. 85.7 per cent. fat. The highest record in this class was made 129 days after the cow freshened. She produced 18.632 lbs. butter-fat, equivalent to 23 lbs. 4.6 ozs. butter 80 per cent. fat, or 21 lbs. 11.8 ozs. 85.7 per cent. fat. Four four-year-olds; age, 4 years 6 months 29 days; days after calving, 18; milk, 396.6 lbs.; butter-fat, 12.941 lbs.; equivalent butter 80 per cent. fat 16 lbs. 2.8 ozs., or 15 lbs. 1.6 ozs. 85.7 per cent. fat. Thirteen three-year-olds; age, 3 years 3 months 23 days; days after calving, 25; milk, 356.3 lbs.; butter-fat 12.064 lbs.; equivalent butter 80 per cent. fat 15 lbs. 1.5 ozs., or 14 lbs. 12.2 ozs. 85.7 per cent. fat. Two heifers in this class produced over fifteen pounds of butter-fat each, one 15.2.2 lbs., equivalent to 19 lbs. 9.4 ozs. butter 80 per cent. fat, or 17 lbs. 12.1 ozs. 85.7 per cent. fat; the other 15.344 lbs., equivalent to 19 lbs. 2.2 ozs. butter 80 per cent. fat, or 17 lbs. 1.4 ozs. 85.7 per cent. fat. Twelve two-year-olds; age, 2 years 2 months 23 days; days after calving, 21; milk, 325.2 lbs.; butter-fat 8.520 lbs.; equivalent butter 80 per cent. fat 11 lbs. 8.8 ozs., or 10 lbs. 4.9 ozs. 85.7 per cent. fat.

About Heating. Is the title of a short, common-sense treatise on this subject which we have just issued, and which we desire to place in the hands of every one interested. It is brimful of information and advice, and no householder should be without it. If you send us a card, saying you are interested, we shall send you a copy immediately, free of charge. CLARE BROS. & CO., PRESTON, ONT. PLEASE MENTION FARMER'S ADVOCATE.

"THERE'S ONE THING" ABOUT "SALADA" CEYLON GREEN Tea, it's all pure, undoctored tea; no coloring; no foreign leaves; no dust. It's as far ahead of Japan Tea as "SALADA" black is ahead of all other black teas. Sold only in lead packets, 25c. and 40c. per pound, by all grocers.

Ideal Woven Wire Fencing. The latest improved, up-to-date wire fencing. Made entirely from No. 9 hard spring wire, insuring strength and durability. Agents wanted. McGregor, Banwell Fence Co., Ltd. WINDSOR, ONT. THIS CUT ILLUSTRATES THE ONLY "Hinge" Stay Fence. It will not sag, and is cheap, strong and durable. Write for circular and prices. Good Agents Wanted in every locality, to whom we guarantee good returns. The Strathy Wire Fence Co., (LIMITED), OWEN SOUND, ONT.

Six Governments. In America and Europe have adopted and use exclusively THE SPRAMOTOR in their experimental work. Eighty-two Outfits are in use by Ontario and Dominion Governments alone. The Spramotor has won over one hundred Gold Medals and First Awards in the past three years. Wins a Government Spray Pump Contest. This is to Certify, that at the Contest of Spraying apparatus, held at Grimsby, under the auspices of the Board of Control of the Fruit Experimental Station of Ontario, in which there were eleven contestants, the Spramotor, made by the Spramotor Company, was awarded first place. If any further endorsement were needed it will be found in the superiority of the Spramotor itself. It is an easy, quick and thorough eradicator of fruit and vine diseases and insect pests. Unequaled in white-washing and painting buildings inside and outside—oil or water joints. We publish an 80 page book, "A Gold Mine on Your Farm," which in addition to formulas, tables, best methods, etc., in spraying, tells about the Spramotor. We mail it free. Ask for a copy. SPRAMOTOR CO., BUFFALO, N. Y. and LONDON, CAN.

Wide-Tire Metal Wheels. FOR WAGONS. Made to fit any axle, any sized wheel, any width tire. Every farmer should have a set. They are low and handy. They save labor, and the wide tires avoid cutting the farms into ruts. Write for Prices. Dominion Wrought Iron Wheel Co., LTD., 9 AND 11 BROCK AVE., TORONTO, ONT. BINDER TWINE SEASON 1902. "Farmers' Special" binder twine supplied to FARMERS ONLY at 11c. per lb., baled in cotton grain bags, bound with rope halters, and weighing 60 lbs. to the bag; length over 300 ft. per lb.; quality and length guaranteed. Cash with orders; purchaser pays freight. Address orders, J. T. Gilmour, Warden, Central Prison, Toronto. Further particulars, address June Nason, Inspector, Parliament Building, Toronto. J. R. STRATTON, Toronto, June 10, 1902. Prof. Secretary.


No! No! No! This word is used four times by Prof. W. Hodgson Ellis, Official Analyst to the Dominion Government, in reporting the result of his analyses of Sunlight Soap. "No unsaponified fat"; that means no waste. "No free alkali"; that means no damage to clothes or hands. "No loading mixture"; that means every atom is pure soap. "No adulteration whatever"; that means pure ingredients. Try Sunlight Soap—Octagon Bar—and you will see Prof. Ellis is right. He should know. HEAVENS. I have used Newton's remedy for coughs and colds with excellent results. My brother has a mare that had the heaves so bad she was almost useless, and she was cured as sound as a colt by your remedy. I have no others that meet it, and to day she is worth a gold dollar. Yours truly, GEORGE W. CURTIS.



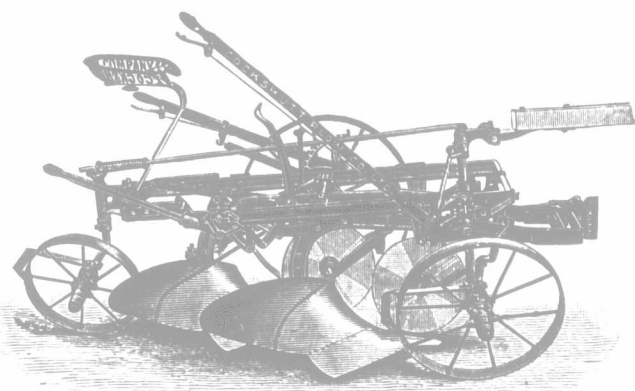
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That new Foot-lift is a marvel of simplicity.  
A child can operate it.



A careful examination of the Jewel Gang will interest you. A trial will convince you that





The foot-lift, foot-trip and locking device, the locking hand lever, are new features not found on other plows. : : :

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AT RANKIN'S, BRANDON,

### MATCHLESS PRICE INDUCEMENTS

On all Summer Wearables and Fabrics of every kind.

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\$10 and \$12 Blue Serge Suits for \$7.50, the greatest bargain even this store has ever offered.

Flannel Suits at \$6.00, \$7.00, \$8.50 and \$10.00.

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All Summer Ties at a fraction of original value.

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Tailor made Suits, Skirts, Jackets, Capes, 20% to 50% reduction.

SHIRT WAISTS much under price. Regular 60c. qualities, now 48c. Regular \$1.00 lines, now 75c. \$1.25 and \$1.50 lines for \$1.00, and some with better qualities.

ALL WASH FABRICS at tremendous reductions.

Under pressure of the cold, wet weather, we will sell our splendid stock of Wash Fabrics at about half-price - 15c. and 18c. Zephyr Ginghams for 10c.; 20c. and 25c. qualities for 15c.

Fine Muslins at a third under price.

IT'S A SALE OF SEASONABLE GOODS AT A SACRIFICE DON'T MISS IT.

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MAIL YOUR ORDERS.

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**FARMERS!!!****THERE IS NO EXCUSE**

for you if you can't keep your cattle up to the mark, they are always sick, and you get discouraged and want to throw up the whole business  
**THE SECRET IS THIS:** You have been using poor food, the straw stack, etc.; want of shelter and care.  
**MORE PROFIT:** To keep less stock, and feed better, using CARNEFAC STOCK FOOD to assist nature in the assimilation of the food given them

**CARNEFAC STOCK FOOD,****THE NEW DISCOVERY.**

is entirely harmless, containing no objectionable ingredients, and no expense has been spared to produce the finest and purest STOCK FOOD on the market to-day.

STOCKMEN who have given all kinds a thorough test claim CARNEFAC to beat them all.  
 It strengthens the system, aids digestion, and purifies the blood, thus greatly lessens the danger of contagious diseases.

**TRY ONE BOX AND YOU WILL NEVER BE WITHOUT ANOTHER.**

Winnipeg, March 5, 1902.

W. G. DOUGLAS, Esq.,  
 City:

Dear Sir,—

I have examined the ingredients of "Carnefac" stock food, and have no hesitation in recommending it to all stock-owners as a first-class article, much superior to anything offered to the public, and I feel sure that any person using it for stock will not be disappointed in the result.

Yours,  
 CHAS. LITTLE, V. S.  
 Dom. Gov. Stock Inspector.

**UNIMPEACHABLE TESTIMONIALS.****CARNEFAC  
 FOOD**

is put up in following sizes:

25¢.

50¢.

\$1.00.

AND 25-LB. PAILS.

Winnipeg, March 4, 1902.

W. G. DOUGLAS, Esq.,  
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Dear Sir,—

This is to certify that I have examined the ingredients used in making Douglas' "Carnefac," and find them to consist solely of pure medicines and highly nutritious and concentrated foods, and in my opinion the use of this preparation should be entirely free from danger and highly beneficial to horses and cattle.

Yours truly,  
 F. TORRANCE, D.V.S.

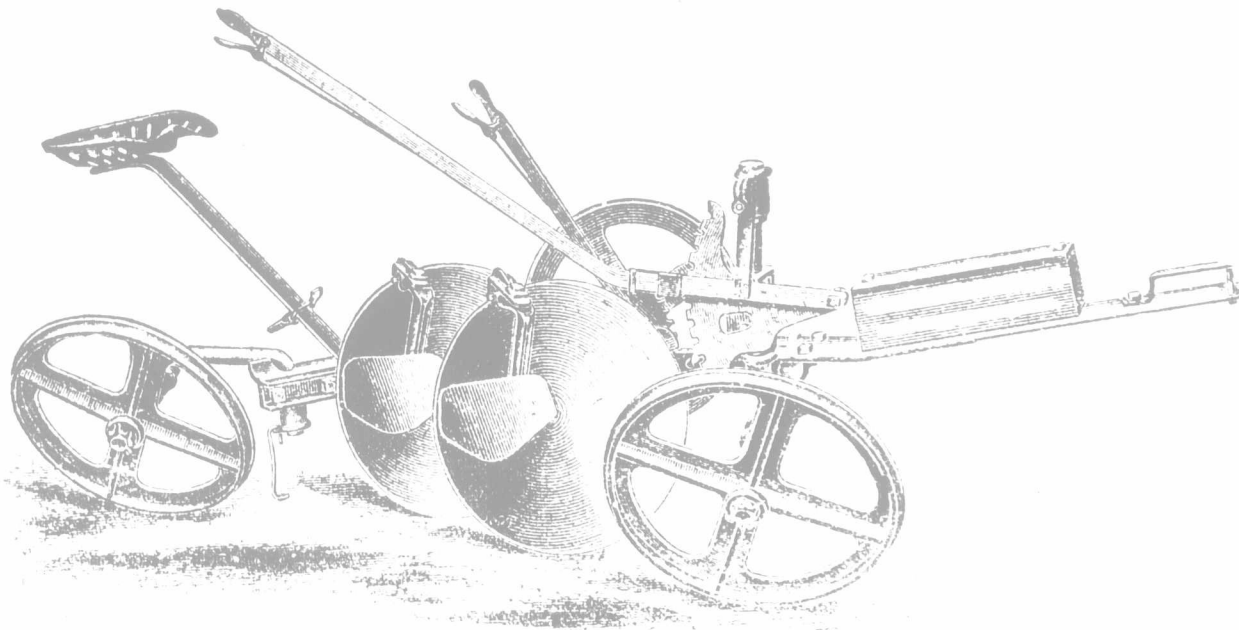
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As a proof, after we put this plow on the market and sold some hundreds of them, the other fellow made up his mind that it was too much for him and dropped right into line and followed our tracks, and now he comes out practically with our plow and tells the public that there is nothing like it nor never was. The public will please take notice that we control the Patents for the Dominion of Canada. The Patentee has just fought an important case in the United States, in which he has come out a winner, and is now taking action against one of the largest concerns in Canada, and will fight his case to a finish.

**WARNING.** Buy a Maw Hancock, as you will be guaranteed against any trouble and will be assured of always being able to get DUPLICATE parts for those plows in the future.

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We also control the BRANTFORD CARRIAGE CO.'S CARRIAGES, MITCHELL & LEWIS CO.'S WAGONS, VESSOT & CO.'S GRAIN GRINDERS, along with a first-class line of PUMPS adapted for this western country