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

PUBLISHED AT LONDON, ONTARIO, APRIL 15, 1903. PUBLISHED AT WINNIPEG, MANITOBA, No. 572

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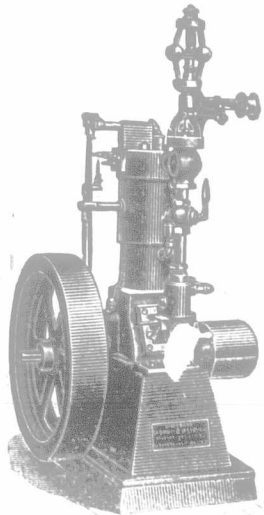
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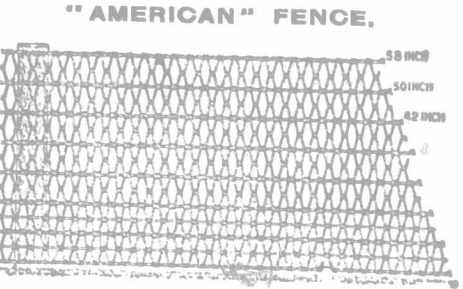
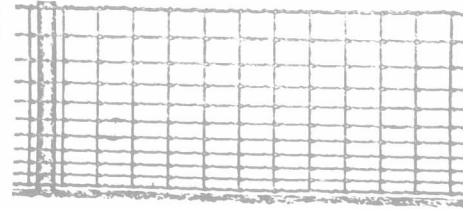
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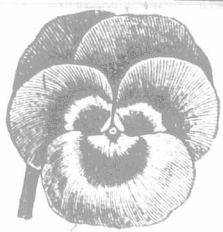


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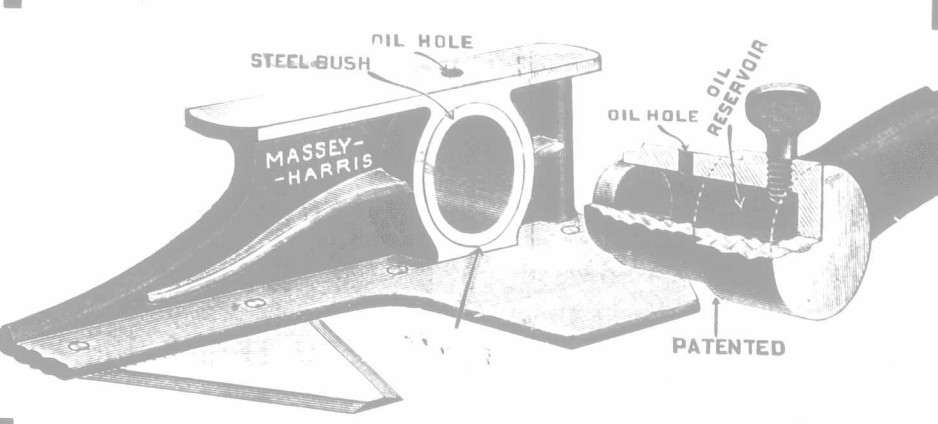
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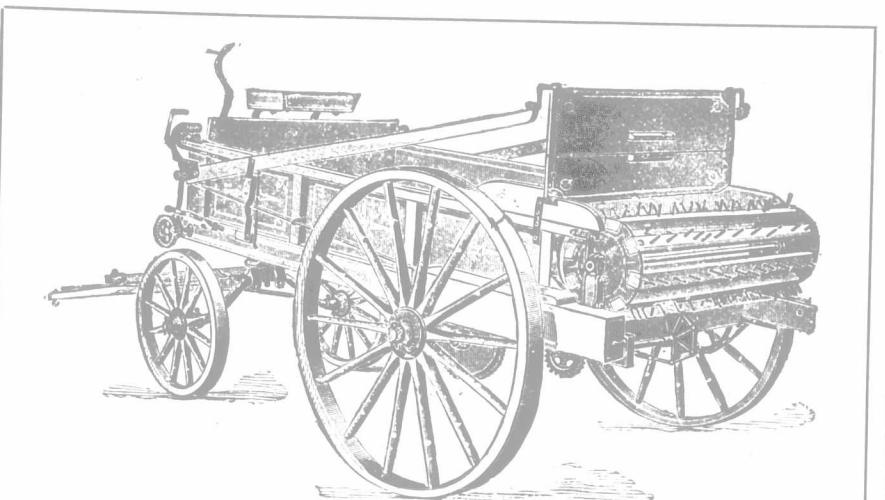


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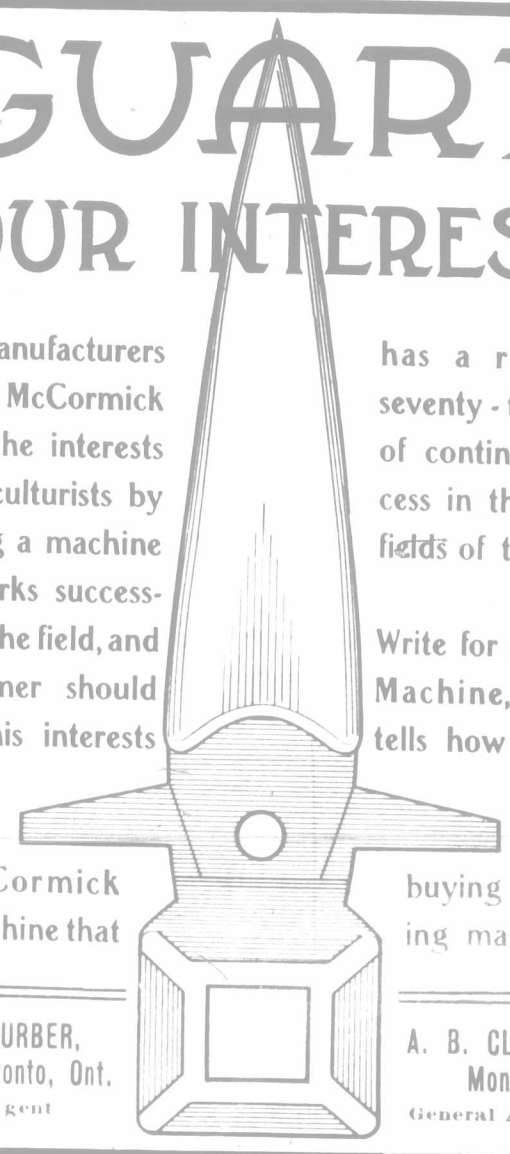


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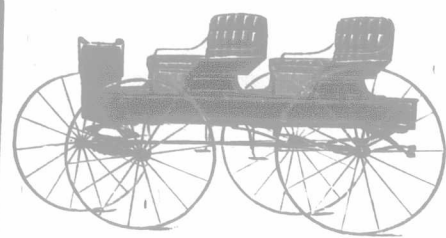
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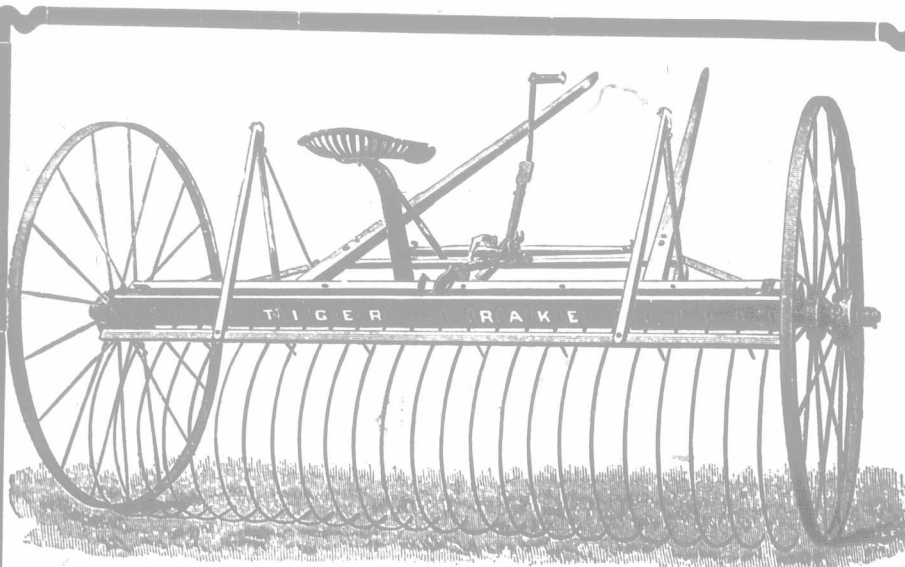
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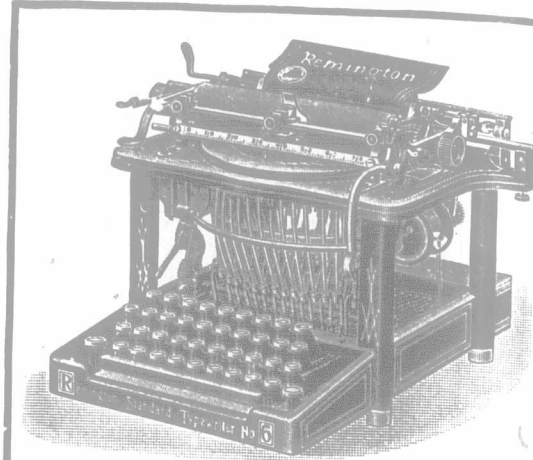
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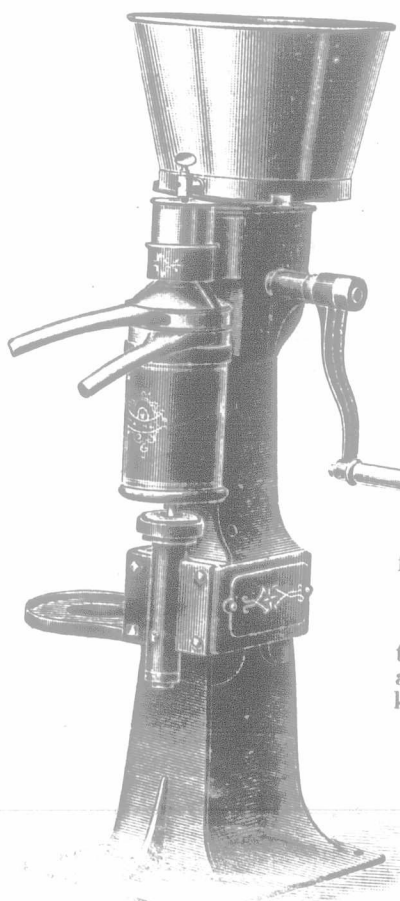
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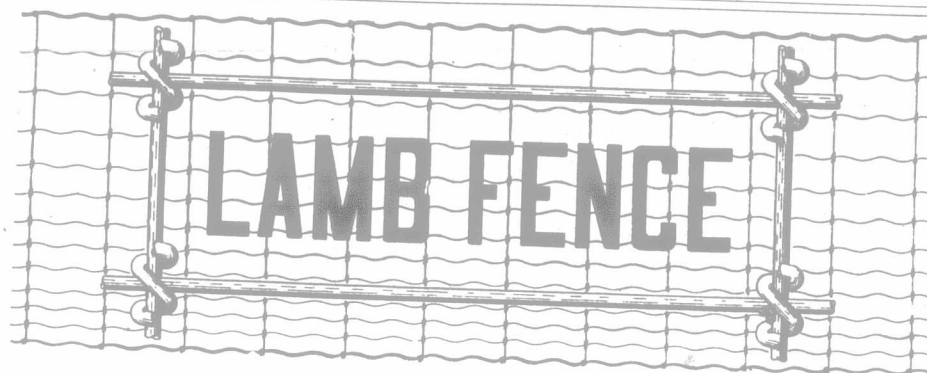
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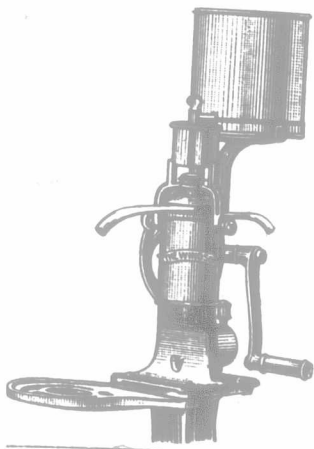
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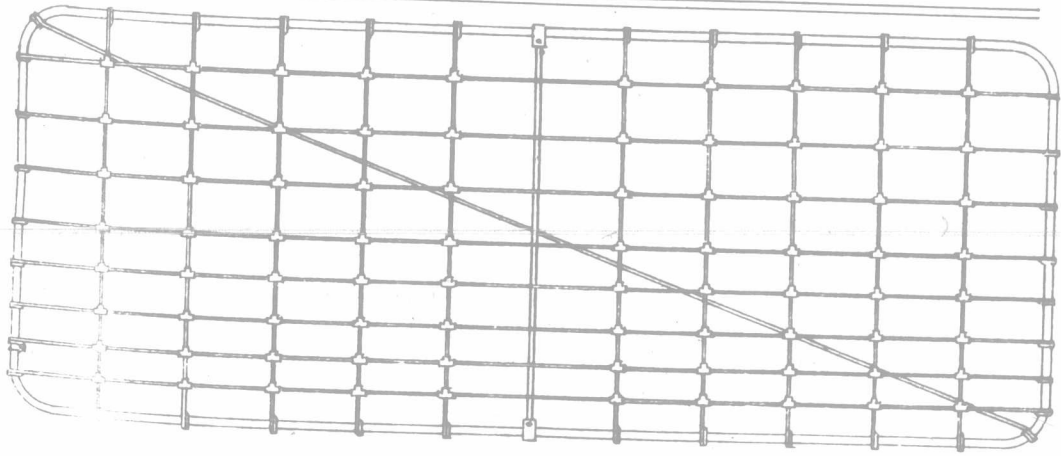
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- Candytuft, mixed
- Calliopsis
- Canterbury Bells
- Carnation
- Centaurea
- Columbine
- Clarkia
- Climbers, mixed
- Chrysanthemum
- Cockscomb
- Cypress Vine
- California Poppy
- Dianthus, Imperial Pinks
- Dianthus, Chinese Pinks, mixed
- Double Daisy
- Daisy Miller
- Evening Primrose
- Everlasting
- Forget-Me-Not
- Four o'Clock
- Godetia
- Gourde
- Heliotrope
- Hollyhock, double, mixed
- Ice Plant
- Labella, mixed
- Larkspur, tall, mixed
- Marigold
- Musk Plant
- Morning Glory, mixed
- Mignonne-tie, Sweet
- Nasturtium, Tall, mixed
- Nasturtium, Dwarf, mixed
- Nasturtium, Madam Gauthier's Hybrid
- Nigella-Love-in-a-Mist
- Pansy, Snow, white
- Pansy, Faust, black
- Pansy, Sweet Scented
- Pansy, Giant Tricolor, mixed
- Petunia, Grandiflora, mixed
- Petunia, Fringed, mixed
- Phlox, Drummond Fringed, mixed
- Phlox, Giant, mixed
- Poppy, Double, mixed
- Poppy, Shirley
- Portulaca, mixed
- Ricinus, Castor Oil Bean
- Salvia
- Scarlet Runner Bean
- Sensitive Plant
- Sunflower, Tall
- Sunflower, Dwarf
- Stocks, Ten Weeks, mixed
- Sweet Alyssum
- Sweet Peas, Everless, mixed
- Sweet Peas, English, mixed
- Sweet William
- Tassel Flower
- Verbena, mixed
- Verbena, Curled and Crested
- Wallflower
- Wild Flower, Garden, mixed
- Zinnia, Double, mixed

Vegetable Seeds

- Beans**
 - Kesney's Redless (yellow pod)
 - Earliest Six Weeks (green pod)
 - Giant Flageolet Wax (yellow pod)
 - Wardell's Kidney Wax (yellow pod)
 - Valentine (green pod)
- Beets**
 - Early Eclipse (round)
 - Carlsom Globe (round)
 - Dark Flat Egyptian (flat round)
 - Detroit Dark Red (round)
 - New Intermediate (half long)
 - Long Smooth Blood (long)
- Cabbage**
 - Early Wilmstadt (pointed head)
 - All Seasons (flat head)
 - Autumn King (flat head)
 - Early Jersey Wakefield (pointed head)
 - Mammoth Red Rock (flat head)
 - Premium Flat Dutch
 - Savoy Drummond
- Carrots**
 - Early Scarlet English Horn
 - Danvers Half Long (7 inches long)
 - Guerrande or Oxheart (5 ")
 - Chantenay Half Long (6 ")
 - Long Red (12 inches long)
- Cauliflower**
 - Early Snowball
 - Extra Early Paris
- Celery**
 - White Plume, self-blanch'g (very early)
 - Golden, self-blanching
 - Carter's Crimson (red)
 - Golden Heart
- Corn**
 - First of all (ears 5 inches long)
 - Stowell's Evergreen (ears 10-in. long)
 - Early Cory (ears 5 inches long)
 - Extra Early Minnesota (ears 7-in. long)
 - Mammoth Sweet (ears 10-in. long)
 - Country Gentleman (ears 8-in. long)
- Citron**
 - Preserving
 - Curled
- Cucumber**
 - Chicago Pickling (5 inches long)
 - Improved White Spine (5 inches long)
 - Improved Long Green (9 inches long)
 - Giant Pera (long)
 - Cool & Crisp (short)
- Lettuce**
 - Early Curled Simpson
 - Nonpareil Cabbage
 - Golden Butterhead
 - Drumhead
 - Big Boston
 - Prize Head
- Musk-Melon**
 - Early Hackensack (green flesh)
 - Paul Rose (red flesh)
 - Emerald Green (red flesh)
 - Montreal Improved Nutmeg (green flesh)
- Onions**
 - Large Red Westerfield
 - Giant Pritzaker
 - Yellow Globe Danvers
 - Silver King
 - Silver King
 - Australian Brown (very early)
- Parsley**
 - Moss Curled
 - Hollow Crown
 - Guernsey Half Long
- Parsnips**
 - First and Best
 - McLean's Little Gem
 - Premium Gem (early)
 - American Wonder (very early)
 - Pride of the Market
 - Horsford's Market Garden
- Peas**
 - Long Sweet
 - Short Top
 - Rosy Gem
 - Paris Beauty
 - China Rose
- Pepper**
 - Ruby King
 - Long Cheese
 - Long Red
 - Sweet or Sugar
- Pumpkin**
 - Long Sweet
 - China Rose
- Raddish**
 - Long Sweet
 - Short Top
 - Rosy Gem
 - Paris Beauty
 - China Rose
- Salsify**
 - Mammoth Sandwich Island
- Spinach**
 - Long Standing
 - Victoria
 - Bloomsdale
- Squash**
 - English Vegetable Marrow
 - Hubbard
 - Orange Marrow
 - Red Hubbard
 - Summer Crookneck
 - Bush Marrow
- Summer Savory**
 - Sage—broad leaved
- Turnip**
 - Early Snowball
 - Purple Top Swede
 - Early Six Weeks
 - Golden Ball
- Tomato**
 - Livingston's Perfection
 - Early Ruby
 - Tree
 - Imperial
 - Enormous
 - Mikado
 - New Peach
- Watermelon**
 - Earliest of All
 - Dixie
 - Ice Cream
 - Wonderful Sugar
- Flower Seeds**
 - Antirrhinum, Snap Dragon
 - Ageratum, mixed

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RAISING THE DAIRY CALF.

In the Maritime Farmer, of January 20th, there appears, over the signature of Mr. P. J. Mills, an interesting and well-written article under the heading, "Raising the Dairy Calf," and we hope you will not take it amiss if we take the liberty of giving you our ideas on the same subject.

We contend, as does the dairyman quoted, that separated milk contains the important elements for the formation of bone, muscle and flesh, but we differ from him when he says that fat is an essential food for the young calf.

We believe that there is a certain chemical balance in the whole milk that is destroyed by the separating process, and we doubt very much if that chemical balance when once broken can be again obtained by uniting the skim milk with fat in any form.

Our theory is that this chemical balance enables the calf to thoroughly assimilate and digest the whole milk, and thus obtain from it all the growth qualities there are in it. Furthermore, we think he is on the wrong track when he says that "some substitute RICH in FAT must be given with skim milk to replace the fat removed in the cream." All the substitutes he mentions are difficult of assimilation, and unless fed very carefully will bring on scours. We do not believe that fat is the element required. We believe that the chemical balance of milk must and can be restored by adding a properly constituted condiment of a purely aromatic nature, rather than by the addition of indigestible, fat-containing meals.

This was our opinion eighteen years

ago, when we first began the manufacture of Herbageum, and results obtained in practice have proven that we were right in theory.

In practice, a calf may safely be fed skim milk from the beginning if Herbageum be added in the proportion of four pounds to a ton and a quarter of skim milk.

We do not ask you to accept our statement in this matter, but we herewith append letters from practical Canadian farmers who have tested the matter:

Last spring we used Herbageum with our calves with skim milk—a teaspoonful to a gallon of the milk—and they were equally fine as if they had had the pure new milk. CYRUS SHAW, New Perth, P. E. I.

I have raised better calves since I began the use of Herbageum than I ever did before, and I do not think that anything can surpass it for them. It is good with either skim milk or sour milk, and I have never seen anything to beat it with whey. I have secured better results with Herbageum than with flaxseed meal, and at less cost. It keeps them regular, prevents constipation, keeps them free from scouring, and there is no trouble with lice when it is used. Have also had the best of results on other stock. ALFRED A. TAYLOR, Margaree Harbor, N. S.

I cannot speak too highly in praise of Herbageum for calves. Skim milk with it equals new milk for them; in fact, is better, for I think they do better in bone and muscle, and develop better than

with new milk without it. There is also profit in feeding it to young pigs.

JAS. S. FANCY, New Germany, N. S.

I have used Herbageum with young calves with skim milk. I found it a great benefit in preventing scours.

STEPHEN WELDON, Middle Coverdale, N. B.

We tested Herbageum thoroughly on poultry, and got remarkably good results. We also fed it with skim milk to calves, and they did better on that feed than we ever had calves do on new milk. It prevents all scouring. Oakville, Ont. BELYEA BROS.

We use Herbageum regularly for our calves with skim milk, and find that it keeps them in really finer tone and condition than new milk without it.

EDGAR McLEAN, Mgr. Laurentian Stock and Dairy Farm, North Nation Mills, Que.

I began feeding Herbageum to calves when they were three days old with (blue) skim milk from the creamery. They have never been troubled with any disorders, and we have at present an exceptionally fine calf—much better than any we ever raised with whole milk—and it received only skim milk and Herbageum. Results are better and the cost less than with flaxseed meal. CHARLES MYERS, Cape Verde, P. E. I.

We think that you will agree with us that our case is clearly proven.

Yours sincerely,
Galt, Ont. THE BEAVER MFG. CO.

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Any honest person who suffers from Rheumatism is welcome to this offer.

I am a specialist in Rheumatism, and have treated more cases than any other physician, I think. For 16 years I made 2,000 experiments with different drugs, testing all known remedies while searching the world for something better. Nine years ago I found a costly chemical in Germany which, with my previous discoveries, gives me a certain cure.

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I know this so well that I will furnish my remedy on trial. Simply write me a postal for my book on Rheumatism, and I will mail you an order on your druggist for six bottles Dr. Shoop's Rheumatic Cure. Take it for a month at my risk. If it succeeds, the cost is only \$5.50. If it fails, I will pay the druggist myself—and your mere word shall decide it.

I mean that exactly. If you say the results are not what I claim, I don't expect a penny from you.

I have no samples. Any mere sample that can affect chronic rheumatism must be drugged to the verge of danger. I use no such drugs, and it is folly to take them. You must get the disease out of the blood.

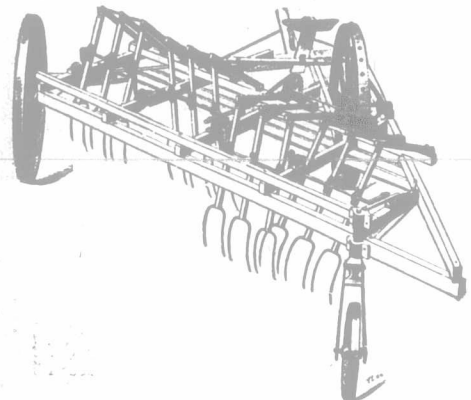
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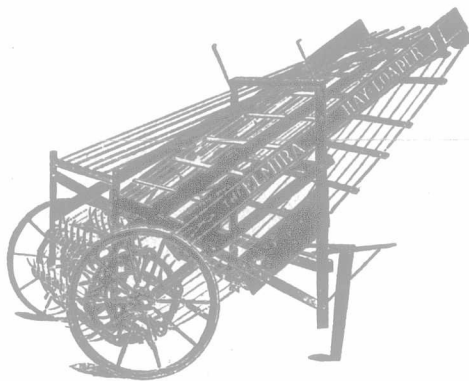


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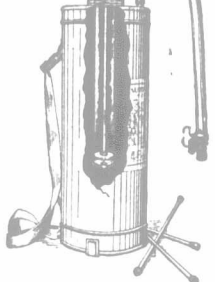
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ESTABLISHED 1866

VOL. XXXVIII.

LONDON, ONT., AND WINNIPEG, MAN., APRIL 15, 1903.

No. 572

EDITORIAL.

Agricultural Co-operation.

The teaching of farm economics, embracing the principles of co-operation, joint stock companies, and other modern business methods in their relation to farming, has been sadly neglected by educationists, and farmers and others are left to wrestle with such problems without the assistance of specially-trained minds. In this country the benefits arising from judicious co-operation are faintly believed in, and the system vaguely understood. Reliable experience sufficiently applicable has been scarcely available, and, therefore, farmers undertake co-operative effort under circumstances that court failure. The non-success of many so-called co-operative concerns has prejudiced such enterprises in many people's minds. Perhaps the reason farmers' combinations have not been generally successful in this country is because there has not been a definiteness of purpose and competent management. In many instances they have suffered from internal jealousies or want of confidence in the management. Early in the history of co-operative enterprise, cranks took up the question and made it a hobby, claiming that it was the remedy for all the prevalent commercial and industrial evils. Such agitation, of course, has tended to retard the advancement of satisfactory co-operation. It should be remembered that co-operation is not a visionary scheme to reform the world. It is not a sure way to ease and comfort. It is not a means whereby the business of production and distribution will run itself and pour dollars into the pockets of its disciples. It is not philanthropy. It is simply an effort on the part of a company of persons to secure to the fruits of labor a larger remuneration, by reducing the cost of production and distribution. Co-operation among farmers is already practiced in Canada to a limited extent, and judging from the results obtained here and in other countries where it is more extensively carried on, success in farming seems to increase in proportion to the degree of co-operative effort intelligently exerted.

Co-operative effort is also to be distinguished from joint stock enterprises. The object of the latter is to secure for capital invested remuneration from the distribution and production of wealth. A co-operative organization is not a concern for making dividends on an investment of capital. It is observed that the objects of the two systems are antagonistic in the sense that capital and labor are opposing forces. Instances, however, exist where the principles of both systems act in a single organization. Such can easily be conceived of where a number of producers of wealth, farmers or artisans, wish to invest their small earnings to the best advantage. A dual purpose organization such as this is always harder to manage than a special purpose concern, and should develop from the latter rather than be introduced and promoted in the place of it. As an instance of the difficulty of operating the dual purpose organization, note such a case as that of the Palmerston, Ont., pork-packing company. The object of this company and similar ones was to handle the hogs of the shareholders in such a manner as to secure for them the profits that are supposed to accrue from the packing business. The method was to advance a certain amount of the purchase price at the time

of the delivery of the hogs, and the balance with the dividends of the business at the annual meeting. But when, as has been alleged, competing companies offered the shareholders a price for their hogs considerably above the first price advanced by the co-operative houses, and about equal to what they expected ultimately to receive, the temptation was too great, the complicity of the business too intricate, and the final market price of pork too uncertain for the shareholders, who, it is said, withdrew their patronage from their own business. From this or other reasons, results have been unfortunate.

Instances might be cited of remarkably successful joint stock companies, such as the co-operative stores of England, which have a closer relation to the mercantile than to the strictly agricultural industries.

Conditions of farming in Canada in previous years have apparently not been conducive to extensive co-operative effort, unless in dairying; neither have the people been very enthusiastic in its favor, but the competition of other countries is compelling us to study the methods of our most successful competitors. In this connection the Danes are our great examples. These people have advanced the co-operative system to its greatest development, yet no people are so far removed from extreme socialistic methods. They first began specializing in dairy farming; later they introduced co-operative principles into their business, and finally have combined the principles of the co-operative and joint-stock enterprises in the operation of banks, pork-packing houses, stores, etc., all for the betterment of their conditions. Their latest movement in the way of co-operation has been to form small associations within the circle of the large co-operative societies, for the purpose of assisting each other to increase the productiveness of their dairy herds. By systematic effort they have in a very short time materially increased the average productiveness of their cows, and they realize that by lowering the cost of production in this way they are adding to the profits of their business. The production end of his business the farmer can control with a good degree of certainty, but not so when it comes to mercantile operations, especially where these come into competition with vast capitalistic enterprises, as developed in America to-day.

The success of the Danish system is the result of an evolution, not a revolution. They first co-operated for a single definite purpose, and by the experience and education gained in the first effort, were enabled to undertake greater enterprises. A co-operative spirit must be cultivated before the system can be extensively practiced. We cannot arrive at the condition suddenly; it must develop.

The stimulus afforded co-operation by a specialization in farming is well illustrated in the Northwest Territories, where the organization known as the Territorial Grain-growers' Association have taken in hand the matter of shipping grain, and by united effort have practically secured legislation in favor of their contentions. In this movement every man was a grain shipper, and their voices were unanimous. They did not try to elect new members of Parliament, but emphatically and effectually placed their demands before their present representatives. It is evident, therefore, that co-operative effort can be made to serve a useful end in farming operations, and especially where certain specialized branches of farming are followed. In such cases the farmers are invariably

ably more skillful in the pursuit of that particular branch than is the man who follows a miscellaneous programme, and it is only right and proper that the more skillful should unite to help each other in the matter of production and in securing the best returns for their labor.

Economize Labor.

The scarcity and the high cost of farm help suggests the wisdom and the necessity of using to the best possible advantage such help as one has or can procure. One way in which time may be economized is by utilizing rainy days, or days on which the land is not in suitable condition to be worked, in preparing in the barn the seed and the tools, so that when the conditions again become favorable, everything may be in readiness for rushing the work. The Western method may, in many cases, be adopted of using wider harrows and cultivators, one man driving three or four horses, thus getting over a much larger acreage in a day. By the use of new and improved labor-saving implements, such as the wide-cutting mower, the hay tedder, the side-delivery rake, the hay loader, the horse fork, slings, or a rack lifter, two men and a boy may handle the crops of a farm with little, if any, hard work, and with greater despatch than under the old system of hard work. It may be objected that these things cost money. This is true, but so does hired help and their board, and when, as is often the case, it is unsuitable and unsatisfactory help, it is a source of worry and vexation, the farmer himself or members of his family often having to take the heavy end of the work, owing to the awkwardness or inefficiency of the hired man, which is liable to be the case with newcomers to the country.

It may be worth consideration whether the principle of co-operation may not be adopted by neighbors in the purchase and ownership of some of the labor-saving implements mentioned, and in the exchange of work, by which the labor may be lightened and the conditions made more comfortable. Such exchange was common in the pioneer days of farming in this country, and was of great benefit to all concerned. Now that the same necessity seems to confront farmers, why may not the same solution of the difficulty be brought into service?

Where dairying is made a specialty, in the absence of a successful milking machine, which is doubtless coming, the work may be lightened and made more pleasant and comfortable by having clean, dry walks to the stables; well arranged stalls for the cows, which are kept clean by the free use of absorbents; the stable windows provided with wire netting to keep out flies in summer, and a cream separator used at the barn to obviate the carrying of milk to the house and back to the barn for the calves. The cream or the milk may be sold and shipped, or sent to the factory, where such are in operation, and thus the labor lightened. We are well aware that in many sections and on many farms this disposition of the milk is not practicable, owing to distance from the railway, the absence of factories, or to other causes, but the other suggestions and many other methods of saving of steps and of time may by a little forethought and consideration be adopted, which will not only make the conditions more pleasant, but will also pay in dollars and cents.

In the older Provinces, where grain-growing

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for the market cannot be made profitable in competition with the new lands of the West, the labor on the farm may be lightened by seeding a larger proportion of the farm to grass and by cultivating a smaller proportion of the land, which, if kept in good heart by the growing of clover and the feeding of stock, would produce heavier crops. It may be wise, too, under existing circumstances, to limit the number of crops grown to those actually needed for the feeding of the stock kept, which will lessen the amount of labor required. By providing a silo for the storing of ensilage, which can be done at moderate cost, it would appear that the average farmer might, if need be, limit his crops to hay, oats and corn, which are reasonably sure, requiring comparatively little labor and having nearly all the elements necessary for successful and profitable feeding. With the addition of a plot of alfalfa near the barn for soiling purposes, a crop which need not be renewed in less than five to ten years, and a patch or two of rape for the pigs and lambs or young cattle, another cheap crop requiring little work, and a few acres of mangels for the hogs and cows in winter, the bill of fare would be nearly complete, and that with a minimum of labor required. We are loath to make any suggestion that might tend to reduce the area grown of so valuable a crop as roots, but with no one crop is hand labor such a prime necessity.

These hints, however, are meant to be merely suggestive, and do not by any means cover all the ground of the subject of economizing time and labor on the farm. Others will occur to other minds, as applicable to various features of farm work, and it is hoped that by calling attention to these points the wisdom of planning farm work so as to make the farmer less dependent on the unsatisfactory help available may be made more apparent.

Now is the time to fill your tree-planting vow. See to it at once; you will never regret it.

Canadian Transportation.

With the sudden and tremendous expansion of Canadian enterprises, and the enormous increase in the growth of wheat and other agricultural products, transportation has become the problem of the hour. The country requires that these products be transported, so that Canadian interests will be promoted. For the most part they are destined for Great Britain, the great food consuming and distributing center of the world. Of that mighty Empire, Canada forms an integral part. It is, therefore, a national as well as a commercial question, and must be dealt with upon that basis. The true policy of this country is to convey these products at such fair rates as will leave the producer an adequate return for his labor and soil fertility. They should be carried over Canadian inland waters or railways to Canadian seaports, so that Canadian interests will be promoted and her commercial independence on this continent preserved in its integrity. Canada is the great natural highway to the Atlantic for the north half of the continent, large portions of which remain to be developed, both in Northern Quebec, Northern Ontario, and the Northwest, and the vision of the statesman is that the spout must be sufficient for the hopper. The country looks for a strong transportation policy, and it is doubtful if any other country to-day presents more promising opportunities for railway enterprise. Fresh transcontinental lines are being projected and various proposals made for the development of canal, river and harbor improvements. Right here the Government of the country feels the need of taking sure and certain steps based upon expert knowledge; hence the idea of the Transportation Commission appointed at Ottawa on April 6th, which is quite distinct from the permanent Railway Commission which has to do with rates and the general transportation service of the country. The Transportation Commission will deal with the extensions and improvements required in Canadian transportation facilities, terminal points, and so on. It consists of Sir William Van Horne, of Montreal; Mr. Harold Kennedy, of Quebec City; and Mr. John Bertram, of Toronto. As our readers know, Sir Wm. Van Horne ranks foremost as an authority upon railway and transportation subjects. He has taken the stand that there is great need of improvement in our facilities for handling trade, and has referred particularly to the imperative necessity of "enlarging the spout" of our transportation routes; in other words, providing greater terminal facilities on the St. Lawrence or at Maritime ports. Mr. Harold Kennedy, of Quebec, has large business interests in that city. He has been specially identified with the Atlantic steamship business, and is regarded as an authority on ocean marine. He was appointed a member of the Quebec Harbor Commission by the present Government in 1896, and is one of the younger men who have been endeavoring most assiduously to build up that part of the Dominion. Mr. John Bertram, as a practical business man engaged in shipbuilding, etc., will represent the lake marine and shipping interests on the commission. His intimate knowledge of the needs of our lake commerce and of the remedies to be applied will be of great value.

It is reported that Mr. J. X. Perrault, of Montreal, and Mr. Bell, of the Winnipeg Board of Trade, will be Secretaries of the Commission, which it is expected will be called together without delay to deal with the important problems that have called it into existence.

That the horse is the farmer's best friend will scarcely be disputed at this season. Treat him as such; see that his harness fits; that he is watered and fed regularly, and when his day's work is over, that he has as good an opportunity of resting in comfort as can well be given him. It will all be returned with interest to the considerate owner.

The garden plot adds more to the comfort and health of the farmer and his kin than any other portion of like area which he owns. If you have not already made provision, attend to it at once. Now is the time.

Agricultural Trading Societies.

In Great Britain the co-operative movement advanced very slowly among agriculturists. There are, however, several old-established associations for the joint purchase of manures in England, and a number of similar bodies exist in Scotland. Among the English institutions of this class, one of the oldest is the Lincolnshire Farmers' Association, established in June, 1868, for the purpose of purchasing genuine phosphatic manures of guaranteed quality, and supplying the same to its members at cost price. This society organized on a strictly co-operative basis; no profit is made on its transactions, and the working expenses are defrayed by an entrance fee of two pence per acre on the land occupied by each member and by a fee of one shilling per ton on the goods ordered. All manures are analyzed free of cost to the members, and delivered carriage free within a certain area. In 1901 this association distributed 6,400 tons of superphosphate to its members, and its accounts for that year showed a turnover of over £19,000. It is maintained that by the influence of the Lincolnshire Farmers' Association, the price of manures has been considerably reduced, and that, consequently, thousands of pounds have been saved by the members and by others connected with the cultivation of land within the sphere of the association's operations.

The task of organizing co-operative associations of small farmers in Great Britain was taken up by the Agricultural Organization Society, founded for the same purpose as the kindred society in Ireland. The objects, as stated in their reports, are to secure the co-operation "of all connected with the land, whether as owners, occupiers or laborers, and to promote the formation of agricultural co-operative societies for the purchase of requisites for the sale of produce, for agricultural credit, banking and insurance, and for all other forms of co-operation for the benefit of agriculture." This society carries on its work by sending organizers to address meetings and to give advice as to the proper course to be pursued in the formation of local societies; by providing model rules for such local societies; and by publishing leaflets from time to time dealing with the various forms of agricultural co-operation. The local societies affiliated with this central organization, some time ago numbered 32, including 24 co-operative agricultural trading societies, or joint-purchase associations.

The Muskham Agricultural Society may be quoted as an example of an agricultural trading association. This was started in May, 1899, with 17 members, and a share capital of £16. In 1900 the membership had increased to 38, and the turnover amounted to £365. One of the first steps taken by the society was to purchase a reaper and binder, with money borrowed from a bank on the joint personal credit of the committee. The scale of charges for the hire of the machine was fixed by the committee at the rate of 4s. 6d. per acre, the society providing twine and a man to take charge of the machine and horses. The result of three seasons' work was that the society liquidated the debt to the bank, and the machine belongs to the members, who can avail themselves of the use of it at a nominal charge, just sufficient to cover wear and tear. Some of the agricultural trading societies are also able to assist in the improvement of the live stock kept by small farmers, by the purchasing or hiring of first-class bulls, boars and stallions. The Tregaron Agricultural Society, a small co-operative body of 50 members, holding shares of 5s. each, of which 1s. 6d. is paid up, has, in addition to its business in manures, cakes and seeds, secured for its members, free of charge, the services of a boar, which is hired out to non-members at a fee of 2s. 6d.

Among the affiliated dairy societies, mention may be made of the Brandsby Dairy in Yorkshire, which is chiefly engaged in the sale of butter, cream and cream cheese on behalf of its members, but also undertakes to supply them with manures, feeding stuffs and other farming requisites. A small warehouse was rented by this society from the railway company, in which the manures, cakes and other articles purchased in bulk are stored, and from which they are distributed to members as a return load for their carts which have brought produce to the railway station. By purchasing in truck-loads and relieving the dealer of the risk of bad debts and the trouble of collecting small sums of money from a number of individual buyers, this society has been able to obtain reduced quotations, by which every member has benefited, however small his purchase. The balance sheet of the Brandsby Dairy Society for the half-year, to January 31st, 1901, showed a turnover of £1,728, and a profit of £46, after allowing £24 for depreciation.

The local societies affiliated to the Agricultural Organization Society are registered under the Industrial and Provident Societies Act, and can, therefore, be sued and sue as corporate bodies.

HORSES.

Stick to Type.

To what horse to breed the mares is a problem that will confront many farmers at this time of the year. There is a growing consciousness that our horses are not what they ought to be, and everyone feels it his duty to assist in improvement. One of the troubles in the past has been that there has not been sufficient care and intelligence exercised in mating. In many cases where a man has had road and heavy draft mares, they have been bred to the same horse, and that often a horse of neither class. Such actions in many cases were determined by personal consideration for the owners of the sire, or because of a small reduction in fee, secured by furnishing two or more mares. When these are the primary considerations in horse breeding, progress is only an accidental incident. A knowledge of the principles of breeding, and an intuitive ability, whereby the results of particular matings are anticipated, are essential to the successful breeding of any class of stock, and particularly the horse.

The first step toward the improvement of our horses is to have in mind a definite type or model to which we wish to attain; and this model should agree with the types of horses that are bringing the best prices in the markets. These will be found to be the big draft horse, weighing from 1,600 to 1,800 pounds; the stylish carriage horse, 15 to 15½ hands high; and the van horse, a big, leggy fellow, that will get over a lot of territory with a fairly heavy load. These are the three classes that are most asked for, and if all of our horses could be classified under either of these heads, the price of horses would not be \$62.25, the average price reported from American horse markets last year. But the trouble is we have a lot of horses that do not belong to any market class, although they are fairly serviceable animals.

Having, then, one of the market classes in mind as a model, the next step is to select a stallion that will produce a horse of the desired stamp from the mares we have on hand. This is the difficult problem, but we have started right, and we know what we want. The class of mares on hand is the most important factor in determining which class of horse to produce. If we fix in mind the law that "like begets like," we will appreciate the folly of trying to produce carriage horses from mares with two or three crosses of draft blood, and vice versa. The drafty mares, or those that are low-set, with considerable weight, should be bred to Clydesdale or Shire stallions; the carriage or roadster class of mares to a big Standard-bred horse or to one of the coach or carriage breeds of stallion. Following this rule will not insure positive success, but it is the safest plan, and the misfits fill the demand for expressers, vanners, family drivers, and cobs. It can be safely said that the average farmer can't afford to breed for speed, nor should he try to produce a general purpose horse for farm work; the markets should be the guide, and the general purpose horse or cob is about the cheapest horse we have.

After deciding to which class of horse we should breed our mares, the next step is to select the particular sire to be used. Unfortunately, not all pure-bred stallions are good stock-getters, neither is the best looking horse always a good sire. The Scotch breeders, knowing this fact, have gelded many of their pure-bred colts, and it would be a long step toward improving all our breeds if many other stallions were subjected to the same treatment. However, because of their long lineage of carefully selected ancestors, making them most prepotent, nothing but a pure-bred sire should be used, and it should be positively known that he is registered in an authorized stud-book. With most breeders of the heavy class, size will be the most essential factor to obtain. In this connection a single mating can hardly be expected to give the desired result. In fact, it is better to gradually work up the standard by breeding the small, tidy mare of good quality to a horse considerably heavier than herself, but not of the extremely weighty sort. These abrupt matings are often disappointing; a loose, leggy, slabby horse is too frequently the result. In all breeding operations work up to the ideal gradually; there will be more stability of type and less probability of reversion to previous inferior types. When once the line of operations has been struck there should be no swerving from that line. Nothing can be gained by rushing from one breed to

another. If the heavy mares do not produce good foals by a certain mating, then try another stallion of the same class, rather than introduce roadster blood. Persistency in purpose is one of the most essential characteristics of the successful breeder. Prices will go up and down, but the man who pins his faith to the right sort of horses and regulates his supply to market demands has got upon the right base, and will have few regrets. To-day the demand for good horses is keen, and prices remunerative. This is the hour of opportunity to raise the standard of horseflesh and place it upon a permanent and enduring basis.

Bone Diseases of Horses' Legs.

(Continued.)

SIDEBONE.—The posterior portion of the bone of the foot, on each side, is surmounted by an irregular quadrilateral cartilage. These are called the lateral cartilages. In the healthy foot they can be easily felt just under the skin surmounting the heels. A conversion of these cartilages into bone sometimes takes place, and the condition is called sidebone. In the healthy foot the cartilages are quite elastic, and yield readily to pressure, but resume their normal position at once on the pressure being removed. When diseased they lose this character, become hard and unyielding, and also become considerably enlarged, and can be easily seen, unless the animal has con-



A BREEZY SUNDAY AT SPRINGLAKE FARM, MICH.

siderable long hair. This disease is usually observed in horses of the heavier breeds, and in the fore feet. It is seldom seen affecting the hind feet, and is not frequently met with in light horses. The usual causes are hereditary predisposition and shoeing with high calkins, but it may be caused by injuries, as treads, etc. The process of ossification is usually slow and often unaccompanied by pain or lameness, but lameness is sometimes present, and when absent is liable to appear at any time, especially if the animal be worked on hard roads. When appearing in the hind feet it seldom causes inconvenience.

TREATMENT.—When no lameness is shown, treatment is not called for, as it is not possible to restore the parts to the normal condition. When treatment is called for, it consists in counter-irritation, as blistering or firing and blistering. This will in many cases cure the lameness, while in others it fails.

BONE SPAVIN.—This is a disease of the hock. This joint, like the knee, consists of many bones, and may be said to have four articulations. That formed by the lower end of the bone of the thigh and the uppermost bone of the hock is called the true-hock joint, and admits of extensive motion. The articulations below this admit of simply gliding motion, and even this becomes slighter as we pass downwards; hence, the motion existing in the lower articulation, that between the lower surface of the inferior bones of the joint and the upper ends of the cannon bones, is very slight. Bone spavin consists in inflammation being set up in the cancellated tissue of the bones, extend-

ing to the compact tissue and articular cartilage, destroying the latter and throwing out an exudate, which becomes converted into bone and uniting the bones involved into one. As a result of this process, a greater or less enlargement appears on the joint, usually on the lower portion towards the front and inside, but any part of the joint may be involved, and as a consequence the enlargement may appear in any position. In some cases, particularly when the true hock joint is involved, no enlargement is present. This is called an occult, or blind, spavin, and as a rule the lameness is permanent and incurable. On the other hand, it is not uncommon for a spavin of considerable size to appear without being accompanied by lameness. The lameness of bone spavin is usually characteristic. In the early stages the horse will usually stand sound, but if asked to step over in the stall in the morning, or after having stood quiet for a variable length of time, or asked to move forward under similar conditions, he will go quite lame, usually stepping on the toe for a few steps. He will go lame for a variable distance, a few steps or a few rods, or further, gradually or quickly getting better, until all lameness disappears, after which he will probably go sound until allowed to stand again. At the same time, if he make a misstep, or strike his toe against a stone, he is liable to go quite lame for a few steps. When the disease becomes more advanced he will probably stand lame; that is, he will rest the lame leg a great deal, and if this continue for a long time, the muscles of his leg and hip will be noticed to become smaller from want of function, but even in this stage lameness will in most cases disappear on exercise. The severity of the symptoms and the probability of a

cure being effected depend upon the articulations involved, rather than upon the size of the enlargement.

TREATMENT is the same as for ringbone. In young horses blistering will sometimes effect a cure, but in most cases it saves time, trouble and expense to fire and blister at first. As with ringbone, no treatment will remove the enlargement; when the lameness disappears a cure is said to be effected. The bone diseases of the hind leg from the hock to the foot are the same as those below the knee.

The predisposition to bone diseases is in most cases hereditary, due either to peculiarities of conformation or congenital predisposition to ossific inflammation, either of which is transmitted to the progeny by either sire or dam, hence the necessity or advisability of breeding to or from sound parents.

"WHIP."

Judging Horses by Weight.

According to English ideas, says the Farmer and Stockbreeder, the judging of a horse by his weight has a serious drawback. By doing so, there is always the incentive to feed up and fatten a horse in order to increase his live weight. Such useless fat, however, can only be harmful, be the animal intended for breeding or work. It is the framework, the amount of bone and the muscle that count, and which decide the question whether a horse possesses weight and substance or not. You cannot turn a small horse, deficient in weightiness, into a big and heavy animal merely by increasing his bulk through a fattening diet.

Colic: Prevention and Cure.

At this season, when thousands of farm horses are suddenly being put to heavy work on the prairie, and are being introduced to a heavy grain ration, cases of colic will not be uncommon. With animals that are subject to this malady, a tablespoonful of ginger, fed each night in the oats, will so tone up the digestive organs that heavy feeding may be carried on with moderate safety. Avoid, if possible, the necessity of giving large drafts of water immediately after feeding. When an animal has fallen a victim to colic, administer as quickly as possible a drench composed as follows: Laudanum, fluid extract of belladonna, and sweet spirits nitre, 1½ fluid ounces each, in one half-pint of water. If the first dose does not bring relief, it should be repeated in one hour.

Perfect and Imperfect Hackney Action.

BY "OBSERVER," IN FARMER AND STOCKBREEDER YEARBOOK.

In light-horse breeding the most important factor in the success or failure of the breeder's efforts is action. It has always been recognized as a feature of paramount importance, and of late



years probably it has received more attention than at any previous time in the history of horse-breeding. There are different kinds of action suited to the requirements of the various breeds, but without doubt the most pleasing action, and that which draws a crowded ringside, is that which the modern

Hackney typifies. As the action in the breed has developed to the wonderful perfection seen in its best representatives to-day, so has the standard, which breeders and buyers alike adhere to, been raised. This high standard, however, has not been achieved without concentrated effort, and has only been evolved in the course of time by establishing a higher ideal to work up to. Time was when the breeder regarded a showy display of the fore legs as the leading equipment of a harness horse, and without minimizing the undoubted importance of that phase of action, it is not too much to say that more attention is now paid to the manner in which a harness horse uses his hocks.

Not many years ago a popular type of Hackney in vogue was required to raise his knees breast high, irrespective altogether whether there was range in the action or not. It was seen by a short experience of this type of action that there was a screw loose somewhere, as the feet of the average horse could not withstand the excessive strain thereby put upon them. Accordingly breeders came round to the modern view of what a harness action should be, and nowadays one rarely sees other than good shoulder action, with fore legs well extended, and the ease and grace of the animal thereby benefited. It is true that we miss the "snap" of the knee, which at one time was a very much prized feature. But what has been lost in this direction has been more than gained in the way of a little extra speed and more graceful movement.

The artist has here depicted the modern type of action, which comes straight from the shoulder, and it is

rather interesting to contrast this with the other kinds of action which are sometimes met with even in well-bred stock. What breeding can accomplish is very pointedly shown by contrast. The illustration representing the horse short of fore action, resembles the action which is suitable for the park hack, and as the Hackney itself is descended from stout Norfolk blood, which carried our forefathers many a weary mile, it is evident that in this horse the breeder has plastic material which can be turned like clay in the potter's hand.

Another illustration represents the commoner type of horse, and distinguishes the well-bred from the mongrel. In many horses this type of action is found, and the difference between the best and what evidently is the worst action which a harness horse can possess, is better represented by the artist's pencil than by columns of descriptive writing.

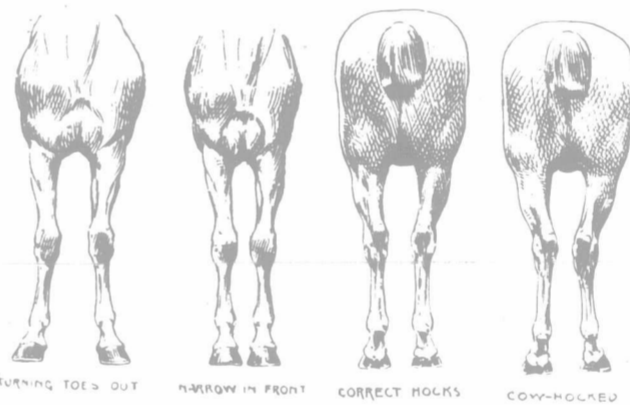
The comparative of all things has a tendency to go with the negative, and the value of its movements, and the manner in which it uses its

front and turns its toes in can never be expected to make a perfect display with such imperfect formation. Many a notable animal, which has figured prominently in prize-lists, has suffered from this physical defect, which has just been sufficiently apparent to prevent entry into the first flight in the show-ring. Conversely the animal which turns its toes out is invariably open at the knees in his action, and that is a very ungainly and reprehensible characteristic.

It has been said that at one time hock action was largely neglected because breeders failed to recognize that the propulsive power came from well-directed power behind. The truest type of action is that which is shown as "flexing the hocks." The angles are graceful in motion, free and easy, and the propulsive power great. As a

general rule there are more animals defective in the hock than in their fore action, and many a promising youngster has been relegated to the wrong side of the post just because it has failed in this, the primary feature of a harness horse. The reason why so much importance has been attached to good action, on the part of the breeder, is that good-looking horses with no action are a drug in the market, while a mean horse with no showy qualities beyond his action can always find a purchaser at a good price. It is action that sells. A hunting man, of course, regards true Hackney action as a thing to be avoided, but then the characteristics and the purpose of the two types of animals are so much at variance that his views have been moulded in a different school.

One of the commonest defects of Hackney action is that of going wide. Apart altogether from its unsightliness, it is evident that the ani-



mal-which does not keep its hocks close together has neither the propulsive power nor are his legs calculated to stand the wear and tear of ordinary work for a lengthened period. Where this weakness is very pronounced, it is frequently the result of internal trouble. Another defect which is sometimes seen is what is known as the cow hock; it is most unsightly when the animal is in a standing position. It is not, however, such a serious defect as the open hock, yet it very materially lowers the animal's chances in good company. The artist has sketched one or two other positions, and by a simple diagram shows how the correct angle of the hind legs may be ascertained. The old type of Hackney was distinctly straight in the hock, and this defect is met with not infrequently in some of the older show animals. It has very largely, however, been replaced by a better angled and more wearing type of leg, where flat bone is accompanied by greater width of bone.

Judging Course.

To the Editor "Farmer's Advocate":

Sir,—Permit me to say how pleased I was at reading your remarks on the "Short course in stock judging." It has been my privilege to try and disabuse the minds of some parties in regard to the impression that has got abroad concerning the objects of that course. Your article, I think, was most timely, and gave expression to my thoughts exactly. It is a pity that disinterested efforts to be useful are not more highly appreciated in this world. Many things would be done that are now left undone. Without conveying the idea for a moment that that two weeks' course will turn out good judges from green men, I think it will be of value, and cost the general public nothing, and only cost those who took the course their fare and hotel bill. I looked in upon them one day, and was pleased with the criticism of the judgment rendered.

EDWARD JEFFES.

STOCK.

Our Scottish Letter.

During the past three weeks, notable horse shows have been held in London, many of the British Experiment Stations have issued useful accounts of their work, and the splendid record made by Shorthorns continues unbroken. The London Hackney Show was an unqualified success. His Majesty the King did his best for all the three London shows, with the result that they had phenomenal attendances.

The Hackneys are at present being subjected to a good deal of criticism. Some of it is undeserved, but a good deal of it comes to the point. There is a disposition to kick at the prevalence of chestnut colors with their inevitable accompaniment, white markings. The complaint has not come a moment too soon. The Hackney is our ideal harness-horse sire. For harness horses men do not want light colored horses, and the undue prevalence of these colors is without doubt inimical to the interest of the breeders of ordinary commercial horses. The majority of the Hackneys shown this year were chestnuts with a superabundance of white markings. The sire which made by far the best show for harness purposes was His Majesty. His produce were well-colored, big, harnessy mares with good feet, sound limbs, and capital action. Rosador shows good show stock, but the bright chestnut and the superabundant white markings are very noticeable in his stock. Garton Duke of Connaught was sire of some of the best animals in the show, including the champion stallion. His stock are exceedingly useful, with plenty of size and wonderful action. The favorite among the females was his daughter, Queen of the South, a whole-colored dark chestnut, which walks and trots to perfection. Her full sister, Queen of the West, has greater substance, but less of the style and quality which makes the successful show mare. Both were defeated for the supreme honor by a Rosador two-year-old filly. The award was followed by an unwonted outburst of popular indignation. I never before witnessed such a scene in a British show-yard. The Rosador group consisted of this filly and her two full sisters—certainly a unique collection. Royal Danegelt is breeding very true to type, color and character. His produce have not the size of that from Garton Duke, and they lack the valuable commercial appearance of the produce of His Majesty. Still, they have so much breed quality that they may rank very high in perpetuating the breed. The most successful Scottish studs at London were those of Mr. C. E. Galbraith, Terregles, Dumfries, (which provided the male champion), and Mr. William Scott, Thornhome, Carlisle, Lanarkshire, which provided the first three-year-old and reserve junior champion female. This filly is named Bryony, and was bred by Mr. Scott. Her dam, Flash, has been an extraordinary dam. She has had many foals, and never had a bad one, while several have gone to the top in the keenest competition. Her sire was Moore's Confidence 163, a horse whose female produce have turned out unusually successful as brood mares. Mr. Scott is owner of the choicely-bred horse, Mathias, a son of the great champion mare, Ophelia. Mares are coming to this horse from Sir Gilbert Grenall and other prominent breeders in England. Bryony is a beautiful, whole-colored dark brown, and she has a full sister, one year younger, which gives great promise for the future. She was named in London, and will yet do more. Mr. Scott keeps a choice lot of Hackneys about him. The largest stud in Scotland at present is that of Mr. Alexander Morton, Gowbank, Darvel, Ayrshire. In fact, Mr. Morton's stud is one of the largest in Great Britain. He was himself one of the judges at London, and, therefore, did not show. Both he and Mr. Scott will hold public auction sales from their studs towards the close of April.

CATTLE SALES have been numerous of late, and great prices have once more to be recorded for Shorthorns. The Birmingham Spring Sale was a great event. There was a big entry of bulls and heifers, and plenty of buyers. Mr. Leon, a comparatively young breeder, near Bletchley, in Northampton, got the highest price, £315, for a young bull, but the best average was made by the Lovat herd from Inverness. This was £158 13s. Lord Lovat has a unique herd. All the leading bull breeders, such as Mr. Duthie, have to buy from Lovat, whose herd has been maintained in a high-state of efficiency for a long series of years. The Lawsons, father and son, have built up a great herd of good Shorthorns for the head of the Frasers. Mr. Lawson, senior, died a few years ago, but his son has successfully maintained the tradition. Mr. Wm. Bell, Ratcheugh, Alnwick, in Northumberland, and not far from the Scottish border, has for some years past been building up a fine collection, and in a unique way. He has crossed cows of Cruickshank descent with what is called an English-bred bull. By this is meant a bull in which Booth blood predominates. This system has proved most successful in Mr. Bell's hands. He had an unreserved sale the other day and realized splendid prices. His fifteen bulls made an average of £127 2s. 5d., one of them named Baron Ratcheugh going as high as £530 5s. The thirty-nine cows and heifers made an average of £45 9s. 6d. The Argentine operators are making the most of our successful sales. Their ports are now open, and, apparently, there is an unlimited demand for high-class pedigreed stock. All the bulls at Ratcheugh, but one, were bought for

the Argentine, and a large proportion of those sold at Birmingham went the same way. The neighboring State of Uruguay is taking Herefords. A large shipment of these superb cattle left London lately for Uruguay. The country is opening up all round, and the future of British stock-owners is unusually bright.

Experiments in this country are more and more taking a practical form. Two interesting experiments have lately been made in oat growing. The aim was to find out the most profitable oat. Four new varieties, Abundance, Newmarket, Goldfinder and Waverley, came out best. This experiment was carried out at Garforth, in Yorkshire. An experiment on potatoes was conducted at Holmes Chapel, in Cheshire. It has been going on for seven seasons, the aim being to get at the best disease-resisting variety amongst new aspirants to popular favor. The simple fact about potatoes here is that the best soon give way, and the new varieties alone seem capable of resisting the blight. Eventually, most of them succumb. There is, therefore, need for constant vigilance, and any new sort is sure of a fair trial.

March 21, 1903.

The Veterinarian's Reading Matter.

I have discussed the educational work to be performed by the aspirant to a veterinary degree before graduation, and at this time will endeavor to show the advantages of continued study on the part of the graduate. The sources of information for the practising veterinarian are: 1, professional journals; 2, new works; 3, veterinary association meetings; 4, agricultural journals; and 5, postgraduate courses.

To the recent graduate sources one, three and four are especially useful, two and five become more so after several years in practice. Unfortunately the professional journals have not the circulation they should have, and the loss falls the heavier on the profession at large, for the individual suffers by his neglect to read at least one journal regularly. The reasons for such a loss are at once seen when the advantages to be derived from subscribing and reading a professional journal are enumerated. It may be reiterated that the graduate who thinks his studying days are over as soon as he leaves college is deceiving himself only; sooner or later the public finds him out, and his income, if not suffering a decrease as the result, will certainly not increase. Five to ten dollars invested annually in the right kind of reading matter is money well invested for the following reasons: (a) The professional journal brings to the busy practitioner new ideas in a concise form; describes new instruments; discusses the newer drugs; and, if properly conducted, gives fair and honest criticism on the newer articles and methods, by men qualified to make such criticisms. (b) The professional journal is the medium through which reports of cases reach the practitioner, who may, in many cases, from the perusal of such reports, gain information from one issue worth far more than the subscription price of the journal. (c) Reviews of books, whether of new editions or works. If the reviews are made by experts who are fair-minded, who withhold a recommendation unless a book deserves it, the journal will save its readers many dollars. Unfortunately, there is a tendency in some quarters to recommend or give a favorable review to all and sundry, thus encouraging the publication of books which are mere compilations, or else the aborted, undeveloped ideas of the authors. The veterinary reading public have to depend on the professional journal for pointers in their book investments, and have a right to demand that only works of merit and use shall be recommended. The mere presentation of an author's copy or promise of advertising should not influence the reviewer in any way; few men but hate to say unpleasant things, even if such are the truth; here, however, the principle "the greatest good to the greatest number" should and must obtain! In the fourth place, the professional journal is a good ground for the interchange of views on professional and lay topics. To be a successful practitioner, one must be a man of the world and broad in his views. If, further, the practitioner's suggester and remembrancer brings to his notice

the new thoughts in human and comparative medicine, discoveries in other walks of science, all that the better. The above reasons advanced for the existence of the professional journal, and its support by the practitioner, cannot be denied. It may not, however, be as readily evident the reasons why a veterinarian should subscribe for and read an agricultural paper. The following succinct statement on the matter will suffice: "The agricultural journal will familiarize the veterinarian with the aims, trials and successes of his clients; such a knowledge must make him more acceptable to them. From his rural mentor he will glean the results of experiments in animal nutrition and farm hygiene, the outcome of treatment as the stockman sees it in actual practice; will be able to follow the shows, and be posted on the latest transactions in pure-bred stock, as also be able to feel the pulse of the laity, especially the reading and thinking element, and thus be enabled to diagnose quickly any change in the attitude of the farming community to the profession. In order to keep in touch with the great live stock fraternity and agriculturists generally, the veterinarian will find in the agricultural press his greatest ally. The constant study of the best text-books will aid in keeping the practitioner in touch with many phases of disease that through lack of opportunity he may be unfamiliar with; in the realm of disease, however, one never knows the time when such an immunity may disappear. The public press it is not necessary to recommend to the veterinarian—news is so eagerly sought after that few deprive themselves of a daily paper. Choice, however, should be made of a paper whose editorials show breadth of thought and honesty of purpose; such papers will invariably have reliable news. In all matters affecting the profession, the professional man should persistently endeavor to see that only reliable information is given to the public.

VETERINARIAN.

From New Zealand.

Mr. Arthur E. Thomson, of Otago, New Zealand, writing under date of Feb. 28th, 1903, acknowledges receipt of our last Christmas Number "by last Frisco mail," and which, after reading, he passed on to two or three old Canadians. In reply to an enquiry for the best New Zealand agricultural paper, he recommends the Otago Witness as the most reliable.

A little extra preparation on that field now may seem wasted time, but remember a finer tilth fits the soil for retaining more moisture, which will be given to the crop at a later period, when much needed, and thus increase the productivity of the field far in advance of the extra labor.

Condition of Range Stock.

The condition of range stock is not, on the whole, as favorable this spring as usual in Southern Alberta. Up till the first of March the winter was all that could be desired. There were no heavy storms, but enough snow to give necessary moisture and create conditions of thrift. There was no crust formed, the weather was generally clear, and the grasses were well cured. In some places grasses suffered a good deal from prairie fires, and in a few cases considerable hay that had been stacked was burned. This happened in the Little Bow country more particularly, and it was felt by many at that time that there was a necessity on the part of the Government to co-operate more vigorously with the ranchers for the conservation of the feed of the ranges. This destruction of grasses has made the wintering of stock in some places a little more precarious.

There will be some losses this year; to what extent cannot be ascertained until the riders begin to work. The cause is the severe weather of the month of March; from the first of March until the third week there has been pretty severe weather; there has been heavy frost nearly every night. The difficulty, however, has not been so much due to cold as to heavy snowfalls. Constant cold at the end of the season, when the cattle are thin, is wearing and reducing on the stock. There is a strip of country between McLeod and Medicine Hat that has had good weather and not much snow. West of McLeod, and both north and south, the snowfall has been heavy. The whole circle away from the McLeod, Lethbridge and Medicine Hat country will suffer some. This includes the Porcupine Hills, Pincher Creek, Mountain View, Milk River Ridge and Maple Creek districts, and includes the range of the Walrond, Cochrane, McIntyre and Knight outfits. The north country about Gleichen, has probably not had more snow than usual. Considerable feeding is necessary up in this district in any season. The Cercle outfit will not suffer much. The snow in many places is from eighteen inches to two feet deep, and it has been heavily crushed by an interrupted chinook. The cattle cannot travel in this snow without becoming used up, and it is hard to put a horse through it for more than eight or ten miles a day. The cattle are being taken out in some cases by using snow-plows. Even where considerable feed has been put up the feeding has had to be continued so long that supplies are exhausted, and cattle that have been fed for any considerable time refuse to get out and rustle afterwards.

The stress of weather will affect the increase, as well as stock at present on the range. Cows that have been exposed will be weaker than usual; the calves will come weaker and also earlier, and will be apt to strike worse weather by coming



Girton Ensign 5733 (18040)
Winner at London Horse Show 1900
Imp. and Owned by The Pioneer Stud Farm, J. G. Truman, Mgr. Bushnell, Ill.

GIRTON ENSIGN 5733 (18040),
Shire stallion, four years old. Weight, 2,100 pounds.
IMPORTED AND OWNED BY THE PIONEER STUD FARM, BUSHNELL, ILLINOIS. J. G. TRUMAN, MANAGER.

earlier, and both cow and calf will suffer. The large proportion of dogie cattle on the range, from the large importation of this class of stock within the past two or three years, will not tend to reduce the proportion of losses. The losses will not reach any very serious proportions, but on the whole the cattle will suffer from the March weather.

J. McCAIG.

A New Sheep Dipper.

The ordinary process of dipping sheep by throwing them on their backs and immersing them in a concrete tank filled with dip is clumsy, and in the case of ewes in lamb, injurious to the animals. Mr. A. W. Barclay, the tenant of Lynturk Home Farm, Aberdeenshire, who keeps a flock of breeding ewes, has introduced a mechanical dipper, the invention of Mr. Alexander Reid, and the apparatus was tried for the first time recently, when several gentlemen interested in sheep farming were present. The apparatus consists of an oblong tank for holding the dip, and a cage, constructed of perforated iron, into which the sheep is put, and which is lowered down into the tank by means of a rope and crank. To facilitate this operation, a counterbalancing weight is provided. This weight rises and falls in a large cask standing at the side of the dip. The cask contains a supply of dip from which to replenish the tank, and the weight rising and falling in it serves to keep the materials always in solution. At each end of the cage is a door, which automatically opens and shuts as the cage rises and falls. The invention is a most ingenious one. Two men can work it, one at the crank and the other pushing the sheep into the cage. Lambs can be dipped several at a time. The cage just fits a sheep, and does not give it room to struggle, and the animal can be kept in the dip as long as is desired. The cage can be lowered to any depth, so that the head may be left dry, if so desired, or the whole body may be immersed. The apparatus was found to work very satisfactorily. As an experiment, a record was kept, and it was found possible to dip twenty-one sheep in six minutes. The dipping was thorough, every part of the fleece being well soaked, and the whole operation was effected without shaking and knocking about to the sheep.

It should be added that ewes dipped were due to lamb in about a fortnight. This machine is made with the avowed object of meeting the case of sheep that have to be dipped when heavy in lamb. In fact, the animals can be dipped with ordinary precaution with perfect safety up to lambing. The dip runs into the bath as required, and has not to be touched with the hands, thus making the work clean and safe for the operators.

Weight and Measure in Feeding.

To the Editor "Farmer's Advocate":

In advising the use of wheat bran in place of other wheat feeds, one is sure to run up against a man who says he can get more milk out of middlings and the bran that is full of flour rather than coarse bran. "Analysis doesn't trouble him! He is after results." And the same man will claim to get twice as much milk out of corn meal as wheat bran. When questioned it will be found that this farmer never weighs his milk; he guesses at results. He also does an equal amount of guessing in his feeding. Ask him how many pounds of the different grains he feeds his cow, and he is up the stump. He feeds by measure rather than by weight, and there are many like him. They use a two or four quart measure or basin when feeding, and when using different feeds they always compare measure, not weight.

The following table is an eye-opener to those who have never given the matter any thought:

WEIGHT OF ONE QUART.

| | |
|------------------------------|----------|
| Coarse wheat bran | 0.5 lbs. |
| Coarse wheat middlings | 0.8 " |
| Fine wheat middlings | 1.1 " |
| Wheat, mixed feed | 0.6 " |
| Cotton-seed meal | 1.5 " |
| Corn meal | 1.5 " |
| Linseed meal | 1.1 " |

When we examine the table it is seen why the farmer who feeds by measure gets such good results from fine floury middlings, and says coarse bran is no good. Cows fed four quarts of middlings twice a day get nearly nine pounds of grain, as compared with four pounds of coarse bran. If he adds to this two quarts of corn meal each time, he also gives them six pounds more of grain. The man who, in picking up a sample of bran, looks for lots of flour, doesn't realize that he is getting a very inferior material that he can or does not use.

Bruce Co., Ont., Dec. 10, 1900.

Substitute for Dehorning.

The British Board of Agriculture has issued instructions for treatment of young calves to prevent the growth of horns:

Clip the hair from the top of the horn when the calf is from two to five days old. Slightly moisten the end of a stick of caustic potash with water or saliva (or moisten the top of the horn-bud) and rub the tip of each horn firmly with the potash for about a quarter of a minute, or until a slight impression has been made on the center of the horn. The horns should be treated in this way from two to four times at intervals of five minutes. If during the interval of five minutes after one or more applications a little blood appears in the center of the horn it will then only be necessary to give another very slight rubbing with the potash.

The following directions should be carefully observed:

The operation is best performed when the calf is under five days old, and should not be attempted after the ninth day.

Caustic potash can be obtained from any druggist in the form of a white stick. When not in use, it should be kept in a stoppered glass bottle in a dry place, as it rapidly deteriorates when exposed to the air.

One man should hold the calf while an assistant uses the caustic.

Roll a piece of tinfoil or brown paper round the end of the stick of caustic potash which is held by the fingers, so as not to injure the hand of the operator.

Do not moisten the stick too much, or the caustic may spread to the skin around the horn and destroy the flesh. For the same reason, keep the calf from getting wet for some days after the operation.

Be careful to rub on the center of the horn and not round the side of it.

Caustic potash is poisonous, and must, therefore, be kept in a safe place.

Hog Cholera.

To the Editor "Farmer's Advocate":

I have from time to time seen a good deal of hog cholera, having caught it in my show herd at the fairs several times, but have been fortunate enough never to have gotten it spread in my home herd. My experience is that there is no certain cure for it, although in many cases the animals get well, and in some seasons medical treatment seems to be all right, and at other seasons the same treatment seems to fail entirely to do any good. It is now known for a certainty that the disease is caused by a germ, and it is, therefore, very contagious from one animal to another; I think almost wholly, if not entirely, by the animal swallowing the germ. Therefore, it is important to look out for the drainage of these germs, and see that no healthy herds are on grounds below the sick ones, where the germs can be carried in the water. The germs can, also, be carried by persons or animals passing from the sick to the well. I do not believe the disease is ever contracted, any distance at least, by inhaling the germs in the atmosphere.

Missouri, U. S.

N. H. GENTRY.

Range Steer Experiment.

A special letter to the "Farmer's Advocate" from Guelph, states that little change in general appearance is to be seen in the steers from the Northwest Territory that are being experimented with. Of the nine which are being fed at the Agricultural College, five are in one bunch, and are now receiving each day 120 pounds turnips, 20 pounds chop and 70 pounds hay, while the other four get 90 pounds turnips, 16 pounds meal and 55 pounds hay.

Of the ten being fed at Major Hoods', five are dead, but two of them do not appear to enjoy such close confinement. From all present appearances, it probably will be the last of May or June before both lots will be fit for sale.

Canadian Investments.

The Toronto Globe publishes an interesting article, showing the progress Canada has been making in the way of investment in new enterprises and increases in old ones during the past four or five years. With regard to the mining boom, however, the Globe incidentally alludes to the fortunes that were not made, millions being thrust into the earth in the endeavor. Summarized, the investments appear as follows:

| | |
|------------------------------------|---------------|
| Banks, Insurance, trusts | \$ 22,560,000 |
| International railways | 3,000,000 |
| Transportation | 42,112,000 |
| Industrials | 77,000,000 |
| Miscellaneous incorporations | 187,000,000 |
| Supplementary capital | 33,500,000 |
| Mining | 10,000,000 |
| | \$375,000,000 |

FARM.

Consolidated Schools.

Ever since my visit to the Consolidated Schools of Trumbull County, Ohio, I have been contrasting two pictures of rural school life. My first picture is a familiar one in most rural districts in our country, and is worthy of serious study. It shows clearly the conditions which surround the boys and girls while they are in the most plastic state and when they are most susceptible to influences that will elevate them and make them good citizens.

The surroundings of the school in my first picture are uninviting, uninteresting and cheerless. There are neither trees nor shrubbery on the grounds to make the plain school building attractive, nor is there a fence to prevent the animals which graze on the highway from wandering over the playground. No farmhouse in the community presents such a neglected, cheerless appearance. Moreover, there is something immodest and repulsive in the obtrusive appearance of the two small buildings at the rear of the grounds, for no effort has been made to hide them from the gaze of the passer-by.

The interior of the schoolhouse is also depressing in its influence. The method adopted for the heating of the building is quite primitive, and little improvement has been made along this line since stoves were first introduced. In the winter conditions are most unhealthful. The pupils who sit near the stove are half roasted, while those farther away are half frozen. As for lighting and ventilating, no special provisions have been made, and the supposition is that cold air is pure air, even in a crowded schoolroom. A few maps hang on the walls, but pictures, which are "calculated to cultivate a taste for the beautiful in art or nature," are absent.

The teacher in such a school is not a contented creature. At the first good opportunity, he will apply for a town or city school, or else leave the profession altogether. The conditions under which he works are disheartening as well as energy-consuming. The classes are small, and there is an absence of that enthusiasm and rivalry begot by numbers. Irregularity in attendance is the rule, and progress is necessarily slow. The number of classes is large, for there are pupils in all stages of advancement, from beginners to high school entrance candidates. As a natural consequence, the teacher can give but little time to any particular class or pupil. He has not even the time to guide wisely and well the studies of the pupils who are not for the time being engaged in classwork.

This picture does not reveal the nature of the training the boys and girls are receiving. This training is mainly one-sided and unpractical. The memory is trained by recitations, and the mind by literary and mathematical studies, but the boy or girl is but poorly equipped for the battle of life when school life is over. Our guides in school matters have apparently forgotten the two great fundamental truths that education consists in the harmonious development of the powers of mind, body and "heart", and that the child gains new conceptions only through the medium of the senses. They have, moreover, apparently forgotten that nature has played a very important part in the education of mankind, and that a study of nature should form an essential part of every child's education.

During the first few years of the child's existence it is busy investigating nature and trying to answer the numerous questions which arise in its mind in the desire to know its environment. Under the present system a child, when sent to school, is rudely separated from its nature studies and compelled to take up new studies which are but slightly related or associated with those undertaken before school life began. It is surely rational to insist on the continuation of the study of nature, so well begun before school, in order that the child may acquire a store of concrete conceptions gathered through the senses.

This study of nature should bring into operation the activities of the child. It should learn to observe, and to do, and to think. It should be an investigator. It should learn to do something by using its head and hands.

The introduction of these concrete studies properly correlated with the other studies of the school will give life to the whole. It will make school life more interesting, because it responds to the activities of the child. It will give the child an interest in his environment, and make him a better citizen. He will find "Sermons in stones, books in the running brooks, and good in everything." It will fit him better for his life-work on leaving school, for which it has all along been a preparation.

In our rural districts, the farmer is dealing directly with nature, and surely his school education should have a bearing on his life-work. Other things being equal, that farmer will be the most successful, and take the greatest pleasure in his work, who has observed most closely and has the greatest number of correct conceptions of the

great field of nature which lies around him. Bailey says: "It is the purpose of the school to inculcate the habit of observing, to suggest work that has distinct application to the conditions in which the child lives; to inspire enthusiasm for country life; to aid in home-making, and to encourage a general movement towards the soil."

All this may be done, and well done, in a small rural school, but present conditions, which I have above stated, do not favor it.

My next picture shows a large plot surrounded with trees of many kinds, and within is a commodious and tasteful building. I see but few of these in the country at present; but as I look into the future, I see many. I see also many flower-beds within the school grounds, and a school garden. I see the children planting seeds, watering their plants, and tilling the ground. I see bird boxes here and there among the trees. No longer do the children go wading through the slush and snow and rain, for they are conveyed comfortably in vans, which pass their very doors. Some come two, some three, some five miles, and are deposited at the schoolhouse with dry feet. There is very little irregularity in attendance. I see the small "tots" and large boys and girls of 16 and 18 along with them. Instead of one teacher with 25 pupils, I now see five or six teachers with nearly 200 pupils, and the teachers in charge of graded classes. There is a joyousness and an enthusiasm throughout the school which is catching. The teachers take a greater interest in the school; the pupils take a greater interest in their work, and advancement is more rapid. I see also a teacher directing a class in the study of common plants and trees and the birds and common animals which are to be found everywhere in the country. The pupils are taught to observe and to study these, and to know their habits; for these are to be their life-long companions in their after-life on the farm. I see also a teacher with a class of girls sewing and mending clothes, or preparing some simple meal, for they will be called upon to do this work in their after-life on the farms. I see another teacher with a class of boys using the plane, the hammer and the saw, for they will need to use these tools in their after-life on the farms. I see small collections of minerals, rocks, fruits, insects and weeds which the pupils have made. I see a good assortment of up-to-date maps and charts, and frames containing clay for modelling. I see also a good library of useful books, for the use of parents, teacher and pupils.

Such are the two pictures which I see when I recall my impressions of my visit to Ohio. I can truthfully say, with regard to my visit, that I went, I saw, I was convinced. I was convinced that the Consolidated School has a decided advantage over the average rural school. I was convinced that the possibilities of the Consolidated School were far greater than those of the rural school. I was convinced that it was possible to make the conditions of school-life in rural districts as favorable for the development of the young as are the conditions in our best town schools towards the development of the young of the towns and cities. It is undoubtedly true that our rural schools have fallen behind those of our towns and cities, for the schools of the latter are trying to make the education of the children serve as a preparation for their work in after-life. It is also true that our country schools are scarcely attempting to place their pupils in sympathetic relationship with the life about them. They have never seriously tried to cultivate the higher nature of the pupil, nor to give him knowledge of his environment. The study of nature has been totally neglected, and there has been no attempt to awaken what C. B. Scott calls "a sympathetic interest in and love for all animal life, to help the boys and girls gain some realization and appreciation of the beauty and unity of nature, or the character and plan of nature."

It seems strange that for these many years but few attempts have been made to introduce the study of nature into our rural schools.

It is not my purpose to describe in detail or give statistics of the splendid attendance at the Consolidated Schools in Ohio, but there are two or three facts which should be emphasized:

In the first place, consolidation will provide better teachers. This, to my mind, is in itself a great consideration. In the rural schools especially, the average tenure of a teacher is exceedingly short; and it is impossible for any good teacher in a short time to exercise the full momentum of his influence in that community.

In the second place, consolidation will bring about a larger daily attendance; a larger enrollment, and greater punctuality. These features are very important ones, which should be strongly emphasized. As I have already stated, when pupils are not punctual in attendance, when classes are small and reduced to half size, it is next to impossible for the teacher to do good work, or for the pupils to make progress. The larger daily attendance is also of great importance. As already stated, numbers create enthusiasm and rivalry; and where rivalry is absent the best work is never done, either in class or in the struggles on the playground. As a result of



BEFORE THE JUDGES, DUBLIN HORSE SHOW.

enthusiasm created by numbers, there is aroused among the pupils a greater interest in their studies, and progress is more rapid.

In the third place, the Consolidated School will bring all the children between the ages of six and eighteen. Under the old system, when attendance becomes small, a boy or girl, after the age of 16 is reached, has no inclination to return to school. In the Consolidated School, however, it is quite practicable to form a class for pupils such as these, and in this way to continue the period of study for two or three additional years. It is during these additional years that application to agricultural conditions could be made. All their studies could have an agricultural direction, if the proper teacher is there to direct them. It is during these few years that the student makes most headway along practical lines, and it is quite practicable to carry into the rural schools the first two or three years of our high schools. Consolidation brings the high school to the farm, instead of compelling the farmer to take his children to the high school. It will aid in stopping the rush from the farms to the cities, for there will no longer be the incentive to move to town to secure good educational facilities.

W. LOCHHEAD.

Ontario Agricultural College.

Supplementary Reading for Boys and Girls.

"The child inherits the greatest good fortune who is born into a home where good books, good music and the best talk are enjoyed, for in these privileges are the greatest educational opportunities." Do we always consider carefully the influence of the conversations which children hear, the acts which they see, and books or papers which they read?

Not long ago I was talking to a gentleman concerning a certain book which had recently been published, and he said: "I have not read it and don't suppose I would get any good out of it if I should. I have got so that I cannot read a book and remember anything good that it contains. When I was a schoolboy I read dime novels, and all sorts of trash, in such a way that I cannot fix my mind on anything instructive. I wish I were in a position to warn boys against such reading." This was spoken by a man who, though he had no special interest in education, saw from his own experience the evil effect of indiscriminate reading.

We all have a deep sense of the importance of teaching a child to read, but let us ask ourselves a question: Have we not in mind the mere mechanical idea of being able to recognize words and their meanings? Do we ever think that this power which we are giving may be the means of bringing poison to his mind, and death to the finer sensibilities of his being? Some will say, "Put into his hands plenty of reading matter and he will choose what is suitable." Never believe it. As well say, "Put before him meat and poison and let him, unconscious of the nature of what is before him, choose what he will eat." I admit that once the child has acquired a taste for the good in literature, he will choose the good and reject the evil, but that taste is something which requires cultivation and careful direction. Now, who is to give this direction? Un-

doubtedly this is the work of parents and teachers. It is the teacher's duty to enable the child to interpret the thought of the best writers. Parents should furnish at least a few good books—one really good book is better than a whole library of worthless trash—books suited to the life and environment of the child. One can make no mistake in furnishing biographies of noted men; books on science, easy enough for children to understand, and reliable stories of discovery and adventure. I shall not speak more particularly now, but hope to do so at another time.

Many cheap papers and magazines which we get, mostly from the United States, under seductive titles, which would lead one to think they were excellent papers for the home, should be prohibited—I was about to say from entering the country; but perhaps the most sensible way is for parents to deal with the matter individually. These papers are filled with stories and advertisements of questionable character, and contain scarcely anything that is good. You answer some innocent-looking advertisement, and are flooded with stuff of this kind. Burn it, and make room for something better. Even the ordinary newspaper, with its sensational novels and horrible details of crime, should be kept out of the hands of young children. I remember that a few years ago a certain newspaper which had a large circulation in the district where I happened to be, published full details of a murder which had occurred in Quebec. This occupied nearly two full pages, and was illustrated with numerous pictures. It was read by the majority of the children in the district, and formed their chief topic of conversation for nearly a week. I cannot help thinking that a great deal of harm results to adults as well as to children from the reading of such detailed accounts of crime.

In all our work we should think of the formation of character, and reading is one of the greatest factors. Get the child to feel that his books are his companions, and that in reading the best books he is getting the thoughts of and is being taught by some of the best and greatest men that have ever lived. Even very young children may be led to catch this idea. For example, in reading Aesop's Fables they should be told something of the writer's life, how he lived in Greece more than two thousand years ago, and was held by the Greeks as a slave. He fell into the hands of a good master, who gave him his liberty. He wrote these stories which we call fables, and afterwards met with a cruel death by being thrown from a precipice by his enemies. After becoming acquainted with the author's life, it will be easy for them to think of him as a real person telling them the story. This should be done whenever it is possible to get something interesting to tell concerning an author. If a good portrait can be shown, so much the better.

The following extract from one of Ruskin's lectures contains a thought which we should try to impress upon our own minds and upon the minds of those we wish to teach: "Real books are written to preserve all that is worth preserving of great men; such books have been written by great leaders, statesmen and thinkers. Will you waste your time in idle gossip, when you might converse with kings, and thus fit yourselves for a higher place in the world?"

W. J. S.

Food until digested and assimilated is of no value to the partaker. Cultivate the habit of retaining, or, in other words, digesting, what you read in the "Farmer's Advocate."

Conquest of Bindweed.

To the Editor "Farmer's Advocate":

Sir,—Having had some experience in combating bindweed—wild morning glory—and knowing that this, the very hardest weed to kill, infests to some extent many farms, I have thought that it might be of interest to your readers to give you an account of my battles with it.

It was ten years ago that it was first seen on the farm, though it must have been present for some time, as the patch was about twenty feet in diameter and very strong. The field was in corn that year, and not knowing much about the weed then, I thought that it could, with care, be killed in one season. This particular spot got the same cultivation as the rest of the field, and, in addition, was carefully hoed, sometimes twice a week, and always once, until growth ceased. The result was discouraging, there was no perceptible thinning or weakening of the weed. The winter following, acting on the advice of a neighbor, manure to a depth of three feet was piled all over the patch, and left for a year. It was wasteful of the manure, but it killed the bindweed completely.

About three years after that, I found among the corn four small patches of bindweed, of from two to twenty plants each. After my former experience, I concluded that the hoe was no good, and decided to try the spade. I dug up the plants to a depth of a foot and a half, carefully following the roots and picking them out clean, though never in any case getting to the very end of them. This operation did not take long, as there were so few plants in each plot, and was repeated from two to four times with complete success in each case. The greatest number of diggings was required where the plants were most numerous. Where there were but two plants, twice digging finished them. I have had similar successful experience two or three times since then. No doubt the roots are exhausted by repeated efforts to send shoots from such a depth to the surface.

Two years ago, having moved to another place, I came into possession of more than was bargained for, in the shape of a dense growth of bindweed on a plot of ground three rods wide by five rods in length. Neither of the methods previously practiced seemed to be practicable in this case. In repeated plowings I had no faith, as a neighbor had for years tried this means of subduing the weed without succeeding. I determined to give surface cultivation a fair trial. Knowing by this time something of the weed to be fought, hopes were not high; certainly there were none of killing it in one season. During the summer of 1901 no crop was sown, and the plot, with a liberal margin, was cultivated about three inches deep every time the plants began to peep through. In the growing season this was about once every five days. For a few times the roots gathered so quickly on the cultivator teeth that handfuls were pulled off at each turning and destroyed. After a little they became more scarce, and, besides, it was seen that neither roots nor shoots above three inches below the surface gave any trouble by taking fresh root. Not much lessening in numbers was noticeable until August, after which there was decided improvement. The following spring the patch seemed about one-third or one-fourth the size, and the weeds about one-fifth as numerous as the year previous. Cultivation as before was pursued until early fall, when the weeds got so scarce that it was quicker to dig them up with the spade than to cultivate, only about a dozen or twenty appearing at a time. During the fall they were dug four or five times. I do not think they are exterminated, but they are certainly sickened. A very moderate use of the spade this season will be all that will be needed to finish them. In digging deeply, evidence that most of the plants were not merely scotched, but killed, was abundant, in the numberless dead roots with which the subsoil was filled.

I have said nothing about spudding bindweed for years in a lawn without utterly killing it, nor of the almost hopeless task of clearing it out of a hedge, but have contented myself with giving instances where success was secured. Two or three conclusions from what has been said may not be out of place:

First, bindweed is a hard weed to kill.
Second, to have the fields in rotation in hoed crop gives an excellent opportunity to discover and weeds before they have become so firmly established as to be beyond control.

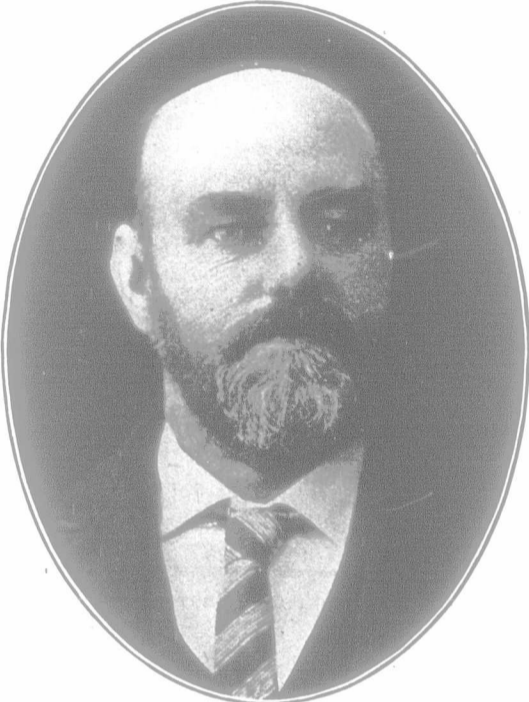
Third, many patches of bindweed, about which farmers feel hopeless, now exist that could be killed if gone about in the right way, but the longer this specially noxious weed is unmolested the more difficult will be the task of subduing it.

Middlesex Co., Ont.

T. BATY.

Smut.

It has been clearly demonstrated that smut in grain can be practically controlled. Many people do not believe this, and claim to have tried pickling their seed, and used every other precaution to prevent smut, only to be disappointed. To some the practice of pickling seed has no more significance than the old-time dish towel wart cure. But the fact is, smut is a disease of the



C. I. DAYKIN, LACOMBE, ALTA.
President Territorial Dairymen's Association.

grain, and unless the seed is protected or disinfected, there is always a possibility of the disease breaking out. The infecting media in the smut disease is a spore, and bears much the same relation to the disease as seed grain bears to the crop. These spores are always present with the seed grain where smut previously existed, having attached themselves to the kernels at threshing time or afterwards. Then when the young grain plant begins to grow, the spore germinates and sends out its haustoria (sap-sucking organs) into the tissues of the plant. The work of the spore is then done, and it dies just as the seed wheat dies in the ground, but the disease, or smut organism, continues to develop with the growing grain, and by the time the grain is headed out it is completely at the mercy of the smut parasite, which uses the elaborated plant-food of the grain



J. B. HARRINGTON, LACOMBE, ALTA.
President Territorial Swine Breeders' Association.

to nourish its own organism, and so propagates countless scores of smut spores in the head of the grain. Knowing the life-history of the smut, we have a cue to a method of controlling it. It is well known that the spores on germinating are destroyed by contact with copper sulphate, or formalin, hence the importance of pickling seed. In conducting the operation, be sure first that

it is copper sulphate that is used, and not copperas, as is too frequently the case, with disappointing results. Use wooden vessels to hold the solution. Dissolve one pound of the copper sulphate in three gallons of hot water, and apply this to ten bushels of wheat. This, of course, is most generally used on fall wheat. It may be applied by sprinkling with a spray pump or watering can, turning the seed frequently, or the grain may be immersed in the liquid by suspending it in a gunny sack. For oats and barley, while the copper sulphate is good, the formalin treatment is perhaps most easily applied. Nine ounces of formalin in ten gallons of water, to ten bushels of seed, has been found quite satisfactory. This solution may be sprayed on, the seed lying in small heaps on the floor, and being turned frequently, so that some of the liquid will come in contact with each grain.

Dangerous Crossings.

To the Editor "Farmer's Advocate":

Sir,—Considerable interest has recently been taken by those in authority over us in regard to the condition of cattle-guards, which we trust will result in more satisfactory protection to cattle, sheep and other live stock. This is all right. The Government has a right to look after the rights of the farmer in regard to the protection of his stock.

But is it not time we had begun to consider: "How much, then, is a man of more value than a sheep?" What about the protection of human life? Are our railway crossings safe? Many of them are not. We frequently hear of "bad places to cross, because you cannot see the train until it is right onto you." The writer has personal knowledge of many that are decidedly dangerous. All over the country they are to be found. Here in the Niagara Peninsula, where so many through trains are running at a high rate of speed, there are many places on the road which are regular death-traps. On the Michigan Central there is a double danger in that of a double track. On the Wabash, T. H. & B. and Michigan Central the trains are very numerous, passenger and express trains often running at sixty miles an hour. Within a few miles on the Michigan Central there are three crossings where the view is obscured by bush or orchard, and on all the lines there are many places where it is impossible to see the train until within a very short distance of the track. A person in attempting to cross at these points in the road has to "use his eyes," as they say, but when the view is obscured he has then to take his chances, and if the wind is blowing in opposite direction from incoming train the chances are none too good. As for the whistle, everybody knows that sometimes it blows and sometimes it does not. Many narrow escapes have been reported, but somebody will be caught some day, and it is time the attention of the Government was called to the necessity of taking steps to protect human life at these dangerous points in the road.

Doubtless the safest method is to have a man stationed at every crossing, as is the case in some countries; but that is scarcely necessary in these days of invention. A large bell at a crossing, which a train would set in motion at a certain distance from the crossing, would be sufficient for most people. Where the block system is employed, as on Michigan Central, it seems as though it should be an easy matter to lower bars on each side of the track while train is approaching. The least that can be done to insure safety is to clear the view so that the approaching train can be seen. The man who has trained himself to use eyes, whip and ears all at same time is comparatively safe, but anyone is liable to get caught when the view is obscured and the train is bearing along at the rapid rate of fifty or sixty miles an hour. The present plan of letting the user of the road look out for himself, whatever the conditions, is unworthy of any community, country or corporation.

Haldimand Co., Ont.

R. DEZELL.

Naming the Farm.

Too much cannot be said in favor of giving the homestead a name, by which it may become distinguished in the district or Province in which it is situated. Most farmers who are breeding pure-bred stock have taken advantage of this idea, and there is no reason why others who are making special efforts in producing high-class products or to have their premises appear homelike should not do likewise. It will influence the boys and girls to think more of home, and will lead them to take a greater interest in making it appear beautiful. It costs nothing, and can certainly do no harm, but will rather tend toward making the home more widely known, and, eventually, more valuable.

Convenient and Inexpensive Farmhouse.

I am thinking of building a house. Could you publish some plan of a simple, convenient farmhouse? I would prefer a plain square building, substantial, yet at as small cost as possible. I would like it arranged for a furnace in basement, one set of stairs, one sitting-room, dining-room, kitchen, pantry, bathroom, and five bedrooms. I would prefer the bathroom to be downstairs, as I think the water can be got to it more easily, also less danger from frost. SUBSCRIBER. Cochrane, Alta.

The above is but one of several requests recently received for plans of farmhouses, with cellars, etc. Instead of giving a specific answer to the above inquirer, we have prepared a plan that we believe will be found suitable for many of our readers contemplating building. The plan given is for a frame house, 22 feet by 30 feet, with a summer kitchen or woodshed, 10 feet by 12 feet, at the rear. Of course, the plan could be enlarged or changed to suit individual circumstances, and as much ornamentation put on extra as desired. In this country, where heating is such a large item, it is foolishness to build a house larger than is absolutely necessary. A brief description of the plan may be helpful. The front door opens into a hall, from which open the parlor and the kitchen. The front stairway starts in the corner to the left of the entrance. About six easy steps round the bend leads up to the landing, with a straight stair from there to upper hall. A back-stair from the kitchen leads up to the same half-way landing as the front stair. The cellar stair goes down from kitchen between the hall door and the back stairs. The kitchen is the largest room in the house, with a 6x6 pantry off one corner, nearest stove and sink. It may be used for dining-room in summer while the cooking stove is in the summer kitchen. The kitchen chimney is inside back wall, so that when outer shed is used for a summer kitchen the same chimney can be used. The room off the parlor could be used for dining-room in winter, and back parlor or bedroom in summer, and might be connected with the parlor by large folding doors. Upstairs there could be four bedrooms, a small sitting-room at head of stairs, which might open into balcony over the veranda, when that useful and ornamental addition was put on. A balcony is very serviceable for airing bedding, clothes, etc., and saves carrying them up and down stairs. At end of hall the plan shows a storeroom, or bathroom, if such a comfort can be provided. In winter, the kitchen stovepipe could be brought up through this room before entering the chimney, which is shown in the corner of room. In the cellar a galvanized iron cistern could be placed under the kitchen sink, where a small pitcher pump could be placed. With a furnace in the cellar, it would be necessary to partition off a portion for storing vegetables and roots, and another for milk, butter, preserves, etc., as the furnace is liable to keep the cellar too warm, and necessarily gives rise to considerable dust. The furnace should be placed about the center of the building. For safety, the furnace chimney should be carried down to the cellar floor and the connection made direct from the furnace, but this plan wastes a great deal of heat, and we could take the furnace pipe up through a corner of the front room and into the front bedroom, where it would enter the chimney. There are many good furnaces made, or a good, thick, box-stove for burning three-foot wood can be used for a furnace by enclosing it in a brick chamber, from which the hot air would be conveyed through tin pipes to various parts of the house. To reach the registers on the upper floor the tin pipes are made to fit in the wall between the studding. The air chamber of furnace must be supplied with fresh air (cold air); one pipe may be taken from outside and another from the floor of one down-stairs room, entering at the bottom of the furnace air chamber, the hot air pipes emerging from the top of chamber. Of course there must be a proper system of check drafts in order to control every pipe. When a cellar is wanted and a furnace is to be used, it is advisable to put the foundation down on the clay, especially so in the case of stone houses.

Specifications called for in such a plan as above, here illustrated, would be as follows: For girders, 1 piece 6x6 inches by 16 feet, and 1 piece 6x6 inches by 14 feet; joists for two floors, 48 pieces 2x8 inches by 22 feet; ceiling and rafters, 72 pieces 2x4 inches by 18 feet; studding, 250 pieces 2x4 inches by 16 feet; 4,500 feet shiplap; 2,300 feet siding; 10,000 shingles; 1,700 feet flooring; 1,000 feet common boards for frames and cornice; 2,200 feet siding extra, if boarded on inside, and 6 rolls of brown building paper; 12 rolls tar paper, for floor, roof, and outside wall, and a few cedar or oak posts in cellar to support the girders.

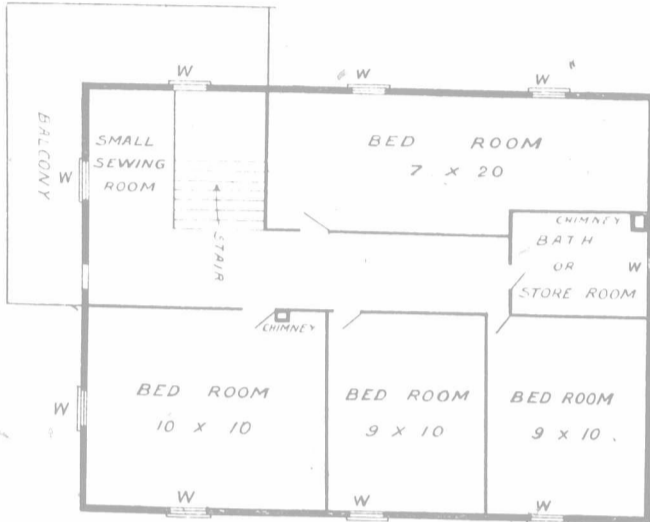
A few further explanations may be helpful. Imbed a piece of 2x4 inch, on top of stone wall, upon which to rest the floor joists; put posts in place and then fill between joists with masonry

work, flush with the top, tight up to floor. Lay shiplap floor, then a 2x4 inch, upon which to set the studs.

For the floor, one layer of shiplap, then tar paper, and then flooring.

When sand and lime and labor are cheap, the outer walls may be back plastered; otherwise put shiplap on inside of studs, then brown building paper (tar paper used here stains the plaster); then stripped with 1x2 inch strips, and lath and plaster. Outside walls, shiplap, tar paper, and siding.

A seven-foot stone wall for such a house would



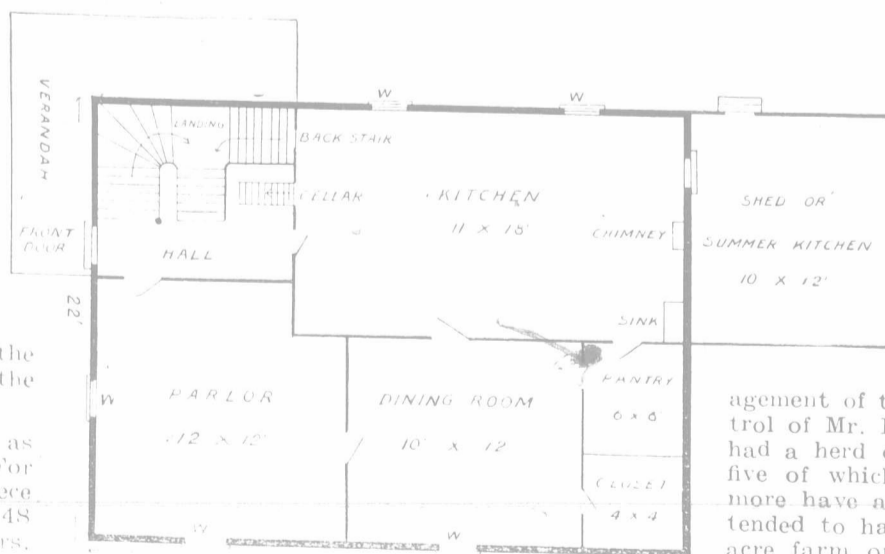
require about 12 cords of stone (128 cubic feet to the cord), but a cord will only lay 100 feet in the wall. One yard of sand and four bushels of lime are necessary for each cord of stone. A mason should lay one cord of stone per day, with everything supplied to his hand. For a chimney it requires 40 bricks per foot to make an 8-inch flue.

With very little changes this plan could be made to suit Subscriber. The five bedrooms could be arranged upstairs by converting the bath or store room and part of the 20-ft. bedroom into a fifth. A small bath-room could be made in a corner of the large kitchen without changing the main plans of the house, and bedroom closets added.

Injury by Weeds.

Without doubt, the greatest injury done by weeds is in robbing farm crops of their plant food and moisture. In this country, where dry summers are so disastrous, it is very important that no controllable water should be lost to the soil. From experiments conducted some years ago at the Ontario Agricultural College, it was learned that by allowing ten plants of wild mustard per square yard, there would be drawn from the soil and evaporated into the atmosphere over twenty tons of water per acre daily. Other experiments, conducted by Prof. Snyder, Minnesota, have gone to show that a crop of wild mustard will, also, take from the soil as much phosphoric acid and potash, and nearly twice as much nitrogen, as an ordinary crop of wheat.

In addition to the foregoing, great damage is done to farm crops by shading and crowding. In the building up of the plant-tissue, it is necessary



that an abundance of sunlight should be supplied. The weeds generally grow faster than the rest of the crop, and soon they overshadow, and, to a large extent, crowd out their more valuable neighbors. The cost of these intruders means an enormous sum to the farmers of Manitoba and the West, and, hence, too much attention cannot be given to the importance of sowing clean seed and adopting methods of cultivation which will eradicate those already established in the soil.

The Telephone in Australia.

Free-handed Australia has found little difficulty in adopting the telephone as a department of the post-office service. The several colonies, now States of the Commonwealth, nationalized the new means of communication soon after its introduction, and now the Federal Government has taken it over. One result of Federal administration has been an equalization of charges. Three different kinds of telephone service will be provided, at different rates. The business telephone service will give the unlimited use of the telephone at all hours, within the limits of the municipality, at an annual charge of \$40. For a similar service, including both the town or city and a suburban area of considerable radius, the annual charge will be \$50. For private residences the rate, without any restrictions as to the number of messages, or limitations as to hours, is fixed at a uniform charge of \$25. In the latter case both the town and suburban service would seem to be included. No provision seems to have been made for long distance telephony, possibly because the centers of population are so widely scattered. The country is fairly well telephoned. Few, if any, towns of 3,000 are unsupplied with an exchange.

The Telephone and Crime.

The rural telephone is appearing in a new role. It beats bloodhounds as a tracker of criminals. Union County, in North Carolina, recently was visited by a gang of desperate burglars. After some exciting episodes they were hunted down and captured. When it came to awarding the credit, mention was made of the bloodhounds employed at one stage of the chase. Thereupon a correspondent of one of the local newspapers pointed out that Union County has ten telephone exchanges, and between 300 and 400 telephones in the country districts. "A few minutes after those desperadoes opened fire upon the officers at Monroe, just before daylight, the news was transmitted by telephone to the neighborhood exchanges, and in a few minutes more it reached every nook and corner of the county. Everybody was then on the lookout and ready to spot any stranger or suspicious character that might be seen in the community, and they were therefore enabled to assist the officers in getting quick information in regard to the whereabouts of the criminals."—[Toronto News.]

DAIRY.

Use More Milk.

When the food value of milk is considered, it is remarkable that it is not more largely used by those who have the facilities for producing it at first cost. Comparing its flesh, fat and bone forming qualities, and the average price at which it is sold, with other foods on the market, the advantage is largely in its favor. Nothing to be found on the farm is more easily digested than pure sweet milk. It is nature's combination for growing animals, arranged in the proper proportion. In an average sample, we find almost four per cent. of protein, or flesh-forming substance; five of carbohydrates, or starchy matter; almost four of fat, and one of mineral matter, consisting chiefly of phosphates and chlorides of potash, lime and soda.

A Large Dairy Farm.

In a short time Winnipeg will be able to boast of having the largest dairy farm in America. With a capital stock of \$200,000, the Munroe Pure Milk Company, Limited, has been formed by the union of the Munroe Creamery, of St. James, and the Pure Milk Company, of Winnipeg. The management of the big concern will be under the control of Mr. David Munroe and his sons, who have had a herd of nearly two hundred cows, seventy-five of which are pure-bred Holsteins. Several more have already been purchased, and it is intended to have a herd of 600 cows on the 1,750 acre farm on the south bank of the river, near the city. Six new barns are to be built next summer, each to be 265x40, and 38 feet high.

As Mr. Munroe has been having splendid success in growing corn for fodder, about 125 acres will be planted when the season arrives. The milk will be purified at the farm, according to the most up-to-date methods, and afterward bottled and stored in the company's refrigerator in the city, from whence it will be taken in wagons to patrons.

The sowing of the farmer largely determines what the world shall eat.

Dairy Instructors' Course.

Under the new system of instruction for cheese factories and creameries, which has been approved of by the Hon. John Dryden, Minister of Agriculture, all the Instructors employed by the Dairy-men's Association are required to spend a short term at one of the Dairy Schools before going out to visit factories. This is done for the purpose of securing uniform methods of instruction, by all men who are appointed to this responsible position. In the past each Instructor taught that which seemed right in his own eyes. The course for the Western Instructors began at the Dairy School in connection with the Ontario Agricultural College, on March 31st, and continued until April 10th. The course was also open to those who wish to qualify themselves for the work. Some fifteen students have registered. This does not include Messrs. Barr and McFeeters, of the school staff, who are also engaged as Instructors for 1903, the former as Superintendent. It is hoped by this plan to bring the benefits of the Dairy School course to every cheese factory and creamery in Western Ontario, in a few years. The course embraces lectures and practical work in cheese and butter making, cheese and butter storing, milk-testing, dairy chemistry and dairy bacteriology.

Ontario Agricultural College. H. H. DEAN.

To Whom It May Concern.

A point that dairymen are enjoined to remember particularly this season is that butter must be thoroughly cooled before it will be received for shipment to the Old Country in cold storage. For the benefit of the dairy industry, the Government furnished plans of suitable cold-storage plants; gave small grants of money to those using such cold storage; provided cold storage on shipboard, and have exerted considerable effort to place our dairy business on a strong footing. It now transpires, however, that dishonest practices have been operating during the past season. Some dairymen and commission men have simply been living up to the letter of the law. They have put their butter in cold storage before forwarding it to Montreal for shipment in cold storage, but the time in which they kept it in storage was so short that it was merely chilled on the outside of the package. A thermometer in the hands of an inspector at Montreal tells the tale of short storage, and so those sending forward butter so treated will be closely watched this summer, and such butter will not go in the regular cold storage chamber, but will just take its chances with butter that has no claim to the cold storage.

Such action is not only just, but is necessary to protect those who thoroughly cool their product before sending it forward. The cold storage on board ship is not a plant to reduce the temperature of warm butter to a certain degree, but is simply a device to keep perishable goods at a low temperature during passage. A cold storage plant on board ship, sufficient to reduce the temperature of butter to a satisfactory point, would be too expensive to maintain, and would be wholly unnecessary if butter is thoroughly cooled as soon as it is placed in packages.

Some shippers claim that their butter is warmed up in transportation from the station to the seaport, but when the thermometer indicates a higher temperature on the inside of the package than near the surface, it is at once evident that the inside never had been reduced below a regulation temperature, as the inside of the package is the last to feel the influence of high temperatures. The cold storage regulations are in the interest of Canadian dairymen, and must be observed. Sharp practices will prove expensive this season, and the old proverb will indicate the best policy to pursue.

The Milking Problem.

When the price offered for fodder cheese is 12 cents and upwards, it can be taken as a pretty certain indication that the market for the June article is going to be firm. Such, at any rate, is the outlook just now. Never before have prospects been so bright for those engaged in cheesemaking, as far as the price is concerned, but on the other hand, there is the unpleasant reality of the scarcity of labor. Just now, more than at any other time, even when prices were low, a man must plan to save labor. Some are lessening their dairy herds; others are holding on, but are compelled to do more work individually at milking time. Another class, but they are few, have arranged with women and grown school-children of the neighborhood to assist at milking. Such help, of course, must be paid for, but the scheme has been found fairly satisfactory where reliable milkers can be found. It is also found that such milkers become remarkably adept when they are given considerable to do. Labor is scarce, and dairying requires a lot of it, but we must have money to carry on operations, and from all appearances it can better be made from dairying and its kindred industry, pork production, than from any other branch of farming. Should present conditions continue long, there will be a strong call for the milking machine.

The Late Mrs. E. M. Jones.

At Gananoque, Ont., on the 6th April, in the 65th year of her age, Mrs. Eliza Maria Jones, of Brockville, the famous dairy authority, passed away. Mrs. Jones was a native of Scotland, but early came to Canada, and completed her education in Montreal. It is not alone as a writer upon dairy subjects and as a successful manager of a most noted dairy herd that Mrs. Jones became famous, but her contributions to the realm of fiction and other light literature gained for her a most enviable reputation. The great work of Mrs. Jones' life, however, was to teach people how to make dairying pay, and for this work she had a most singular adaptability. Not only was she remarkable for the refinement and culture of her mind and home, but from experience and observation she became an expert judge of dairy cattle, and by careful selection and mating, succeeded in building up a herd of Jerseys which gained a continental reputation, winning highest honors at leading shows in Canada and the United States. At a combination sale in New York City some years ago, at which 350 Jerseys were sold, many of them owned by the wealthiest men in the States, a magnificent silver cup was offered to the contributor who made the highest average price on five animals. This trophy was captured by Mrs. Jones, amid the wild enthusiasm of her American friends. On another occasion Mrs. Jones won a handsome silver tea set, donated by the "Farmer's Advocate," at the Western Fair at London, for the three best dairy cows, in any breed. The competing cows showed a profit of seventeen per cent. above value of food consumed.



THE LATE MRS. E. M. JONES.
Died April 6th, 1903.

while Mrs. Jones' cows showed a profit of forty-seven per cent.

The work done by Mrs. Jones in the interest of the dairying industry stands as an enduring monument to her name and memory, and to her must come the fulness of a reward for good deeds well done. Surviving her are her husband, Mr. Chilion Jones, two sons and three daughters. One of her short stories, "Gold Elsie's Ride," was written for the "Farmer's Advocate," in which, also, appeared many of her practical contributions to dairy literature. "Dairying for Profit, or the Poor Man's Cow," a small book, was her most notable production, thousands of copies of which have been circulated in nearly every English-speaking country in the world.

O. A. C. Dairy School.

The final examinations of the Dairy School, in connection with the Ontario Agricultural College, were held March 24th, 25th and 26th. Forty-one students took the finals, of whom forty passed successfully. Of these, 35 were in the factory class; eight were specialists in buttermaking; one was a specialist in cheesemaking, and six were in the farm dairy. Since December 1st, 1902, 162 students have registered at the dairy, including 43 in domestic science. Many of these were able to remain but for a short time, especially among those who came to the farm dairy. However, much good is accomplished for students who, by reason of home duties, can stop for but a week or two. Mr. Barr has been able to do good work among the advanced students in cheesemaking, by having them in a separate class, to conduct experiments and take up points relating to the science of making cheese.

Findings in Feeding.

The result of experiments conducted at the Minnesota Agricultural College shows that on an average cows lose two pounds per day in weight for the first ten weeks of their lactation period, and that this loss of weight is utilized in the production of milk and butter-fat. These results indicate the necessity of getting cows up in good flesh before calving, as an excess of feed fails to check their loss of weight, and only tends to decrease the milk flow by deranging the digestive organs. Other results show that the composition of the ration should vary with the composition of the milk given by individual cows. In other words, a cow that gives a large amount of butter-fat should receive more fat in her ration than a cow that gives a smaller amount of fat.

GARDEN AND ORCHARD.**Planting Trees and Small Fruits.**

The successful growing of trees, fruit or ornamental shrubs, vines or plants, depends very much on having good, sound, healthy stock to start with, and in giving them a good start; therefore, it is important to exercise care and judgment in planting. First, the ground should be laid out in straight rows. For fruit trees a number of small stakes should be used, placing a stake just exactly where each tree is to stand, having them in straight rows both ways; then take a piece of board about five feet long and six inches wide, make a notch in the center on one side, and also a notch in each end; have two round pegs made about twelve inches long and pointed. Place the board so that the stake which marks the place where the tree is to stand will be right in the center notch, then drive in the pegs in the end notches, one in each end; remove the board and center stake, leaving the pegs standing; the board will slip out easily between the pegs. Then dig the hole, making it large enough so there will be room for the roots without cramping; then replace the board between the pegs, and place the trunk of the tree in the center notch. It will then stand exactly where the stake had stood. By using this simple device the trees will be in straight rows in every direction; without this it will be almost impossible to get them straight.

Good mellow surface soil should be worked in about the roots and small fibers, using water if the weather is dry, and taking care to give all the roots a firm contact with the soil, tramping it well, but leaving the surface quite loose for a few inches on top. If the roots of trees or shrubs have become dry before planting, through careless handling, it is well to make a thin mortar of surface soil, and place the roots in it for twenty-four hours before planting. In taking up trees, nurserymen destroy a lot of the roots, and any that are left with broken and jagged ends should be pared off smooth, and if much of the roots have been removed the top of the tree should be cut back to balance the root system.

Newly planted trees should be either well mulched or thoroughly well cultivated to hold the moisture during the dry, hot weather, otherwise they may receive injury from which they will never recover. For apple trees the minimum distance should be 32 feet each way on rolling land, but on level land 35 would be better. Standard pears and cherries should be about 20 by 25, while plums and dwarf pears will do very well at 16 feet each way.

Raspberries and blackberries are easily and simply planted with a spade, or a deep furrow can be made with the plow; the plants placed in it about 40 inches apart, and the surface soil well tramped about the roots, and, as in the case of trees, leave the surface soil loose. The roots of these plants should never be allowed to become dry. But if they should, or if the weather should be dry, they should be dipped in water to keep them moist. It will pay to use water to puddle them in, if weather should be warm and dry. Strawberries can be planted quickly and well with a spade. First take up the plants that have set from last year's runners; the nearer the base the better the plant; trim off dead and rusty leaves and runners, and straighten the roots down and the leaves up, and place them in a basket ready for planting. Mark the rows with a marker, four feet apart. With a basket of plants in one hand and a spade in the other, proceed to plant; drive the spade down, shove the handle forward, take a plant out of the basket, holding it by the top; give it a little shake to spread the roots, and slip it into the cavity behind the spade, holding it with the crown of the plant just level with the surface of the ground; withdraw the spade, and at the same time press in the soil firmly with the foot. Strawberries should be set from 16 to 18 inches apart in the rows, and should, when planted in spring, have the blossoms clipped off and not allowed to bear the first year.

The Apple Orchard

(Concluded).

BY S. H. PEART.

We have now reached the climax of our work, namely, the harvesting of the fruit. First, all fruit which can be reached from the ground should be picked; then use ladders of suitable length, and as light as possible, in order to give the picker an advantage. A medium length of step-ladder with which to reach the fruit on the under branches is very handy, and should be found on every orchardist's list. Some recommend the use of extension ladders, but owing to their great weight being far from the bottom, and the liability of getting out of order, they are not generally popular. If a tree has been properly pruned and suitable ladders are used, little or no climbing through the head of the tree is necessary.

The fruit is picked into large pails, or round-bottomed baskets, and handled very carefully so as to prevent bruising. When a basket of fruit is brought from the tree it is emptied into boxes or barrels, in which it is to be removed to the packing house. Arriving there, it is emptied on the packing tables, and carefully sorted into as many grades as necessary for the market to which it is going. All broken or decayed fruit is cast aside to be destroyed. Wormy, bruised or badly-shaped fruit must be removed from the sound fruit.

For our export trade, sound fruit is divided into several classes, according to the size. At the present time the Government demands that the size of the fruit be marked on each package, together with the name and address of the packer. This has done away with very much careless packing. No. 1 fruit for export is still generally packed in barrels. The British people, however, are calling for a small fancy package, and within the last few years much progress has been made in this direction.

During the past season many growers packed their apples in boxes holding three pecks. The apples were packed with excelsior, to absorb the moisture, and keep the fruit from bruising. All this meant a great deal of work, but they were amply repaid for their trouble. The wrapping of apples in manilla paper, as is done with California pears and oranges, has had some attention, but as yet little progress has been made. At the same time, if transportation charges could be so regulated to suit the shipper at all seasons of the year, the wrapping of fruit for export may become very popular. Undoubtedly, the fruit

presents a much better and more attractive appearance when carefully wrapped.

When the fruit is first placed in the box or barrel, the first row should be placed with the stem end down, and in even rows over the bottom of the package. The bottom of the empty package is the top of the finished case. The rest of the fruit must be carefully placed in the barrel, letting the basket containing the fruit well down to the fruit already in the barrel before it is emptied. Make the sample uniform throughout, and do not deceive the buyer. In England, and also on some of the American markets, the buyer depends largely on the reputation of the seller, and a good reputation is worth many dollars.

Apples are graded for size, according to the diameter, and this must be carefully done. A board, in which are holes the size we intend to make the grade, is very convenient, as an apple tried occasionally fixes the size in the sorter's mind. When barrels are the packages used, they should be shaken after each basketful is emptied. The manner of shaking must be found out by practice, but one thing must be observed, the apples must not roll around. Fill the barrel a little higher than the staves, and press the head in gently. Boxes must also be shaken, but they cannot be filled very much above the level, on account of being shallow and when pressed severely the fruit would be broken. When hauling fruit of any kind to the shipping place, it should be done on spring wagons, to prevent jolting.

With seconds or culls it is a difficult task to find a ready market, as they will not keep long. Evaporators and cider mills use up many inferior apples every year, but not nearly all which are unfit for export. This leaves some energetic person a good opportunity to help the apple-grower by inventing some method by which to manufacture cull apples into a useful product.

Apples are usually sold by commission merchants, who charge a certain percentage for conducting the sale. When they receive the fruit it is sold immediately, unless instructed by the shipper to store for future markets, or in case of a glut, when they place the fruit in cold-storage until such time as the markets are favorable for successful sales. In the case of apples, however, the commission merchant usually sells at the notice of the shipper. Our best markets for apples are in Glasgow, Liverpool, London and Manchester. South Africa and Australia are promising markets, but at present the transportation rates are too high for profitably marketing our produce in those countries.

Black-knot.

The worst evil we have to deal with in the cultivation of the cherry is undoubtedly the black-knot. It is also very destructive on many varieties of plums. Some, however, are not so susceptible to it as others; but it is particularly destructive to the cherry, and many farmers have given up in disgust or despair all attempts to grow a few cherries for their own use on account of its ravages. There is only one effective way of dealing with it, and that is to cut out and burn every black knot in sight, at all times and wherever it makes its appearance. Something may be done in the way of prevention, but nothing in the way of cure, except by means of the knife and fire. The preventive measure is spraying, keeping the whole surface of the bark covered with Bordeaux mixture, out to the ends of the smallest twigs. It is a fungous disease, and is propagated by minute spores, so small that they can only be seen by means of a good microscope. They will carry for miles in the wind, and alighting on the limbs of healthy trees, they immediately begin to propagate, and soon the unsightly protuberance makes its appearance. If the surface of the bark is covered with Bordeaux the spores cannot obtain a foothold. But it will never be stamped out in this way, and it has been amply proved by experience that it can be entirely eradicated in any district by concerted action in cutting out and burning it. The trouble lies in the fact that in municipalities where fruit-growing is only a minor part of the farming operations, there is no means provided for enforcing the black-knot law, and it remains a dead letter, and a man is loath to incur the ill-will of his neighbors by forcing them to destroy the knot-infested trees. In those townships where it has been entirely stamped out, fruit-growing was the chief industry and the council appointed an inspector whose duty it was to see that every vestige of it was destroyed.

There is no use in one man trying to keep his trees clear of knot unless his neighbors will do the same. He may keep on cutting out and burning until his trees are all cut away, for probably someone else in his vicinity has enough of it to pollute a whole township. If township councils will not appoint an inspector, and it would be a difficult matter probably to induce them to do so in a section where the fruit industry is small, some means should be provided. The pathmasters or the assessors, or both in conjunction, might be charged with the duty of seeing that no

Spraying Calendar.

| PLANT. | 1ST APPLICATION. | 2ND APPLICATION. | 3RD APPLICATION. | 4TH APPLICATION. | 5TH APPLICATION. | 6TH APPLICATION. |
|--|---|--|--|--|---|---|
| <i>Apple</i> Scab, codling moth, bud moth. | When buds are swelling, Bordeaux, copper sulphate solution and Arsenites. | Just before blossoms open, Bordeaux. For bud moth, Arsenites, when leaf buds open. | When blossoms have fallen, Bordeaux and Arsenites. | 10-14 days later, Bordeaux and Arsenites. | 10-14 days later, Bordeaux and Arsenites. | 10-14 days later, Bordeaux and Arsenites. |
| <i>Cabbage and Cauliflower</i> Worms, aphids. | When worms or aphids are first seen, Kerosene emulsion. | 7-10 days later, if not heading, renew emulsion. | 7-10 days later, if heading, hot water (130° F.) or Hellebore. | Repeat third in 10-14 days if necessary. | | |
| <i>Celery</i> Leaf blight, rust. | Ammoniacal copper carbonate at first appearance of disease. | Repeat first to keep foliage protected. | | | | |
| <i>Cherry</i> Rot, aphid, slug. | As buds are breaking, Bordeaux. When aphids appear, Kerosene emulsion. | When fruit has set, Bordeaux. If slugs appear, Hellebore. | 10-14 days, if rot appears, Ammoniacal copper carbonate. | 10-14 days later, Ammoniacal copper carbonate. | | |
| <i>Currant</i> Mildew, worms. | At first sign of worms, Arsenites and Bordeaux. | 10 days later, Hellebore. If leaves mildew, Bordeaux. | If worms persist, Hellebore. | After fruit is harvested, apply Bordeaux freely. | | |
| <i>Gooseberry</i> Mildew, worms. | When leaves expand, Bordeaux. And for worms as above. | 10-14 days later, Bordeaux. For worms as above. | 10-14 days later, Ammoniacal copper carbonate. For worms as above. | 10-14 days later, repeat third. | | |
| <i>Grape</i> Fungous diseases, flea-beetle. | In spring, when buds swell, copper sulphate solution, Paris green for flea-beetle. | When leaves are 1-7 inches in diameter, Bordeaux. Paris green for larvae of flea-beetle. | When flowers have fallen, Bordeaux, Paris green as before. | 10-14 days later, Bordeaux. | 10-14 days later, if any disease appears, Bordeaux. | 10-14 days, ammoniacal copper carbonate. Make later applications of this if necessary. |
| <i>Nursery Stock</i> Fungous diseases. | When first leaves appear, Bordeaux. | 10-14 days, repeat first. | 10-14 days, repeat first. | 10-14 days, repeat first. | 10-14 days, repeat first. | 10-14 days, repeat first. |
| <i>Peach, Nectarine, Apricot</i> Brown rot. | Before buds swell, copper sulphate solution. | Before flowers open, Bordeaux. | When fruit has set, repeat first. | 10-14 days later, repeat. | When fruit is nearly grown, ammoniacal carbonate. | Repeat five at intervals of 5-7 days if necessary. |
| <i>Pear</i> Leaf blight, scab, psylla, codling moth. | As buds are swelling, copper sulphate solution or Bordeaux. | Just before blossoms open, Bordeaux; Kerosene emulsion when leaves open for psylla. | After blossoms have fallen, Bordeaux and Arsenites; Kerosene emulsion if necessary. | 8-12 days later repeat third. | 10-14 days later, Bordeaux. Kerosene emulsion applied forcibly for psylla. | 10-14 days later, repeat fifth, if necessary. |
| <i>Plum</i> Fungous diseases, curculio. | During the first warm days of early spring, Bordeaux for black knot. When leaves are off in the fall, Kerosene emulsion for plum scale. | When buds are swelling, Bordeaux for black knot and other fungous diseases. During mid-winter, Kerosene emulsion for plum scale. | When blossoms have fallen, Bordeaux. Begin to jar trees for curculio. Before buds start in spring, Kerosene emulsion for plum scale. | 10-14 days later, Bordeaux. Jar trees for curculio every 2-3 days. For San Jose scale, Kerosene emulsion when young appear in spring and summer. | 10-20 days later, Bordeaux for black knot. Jar trees for curculio. When young plum scale insects first appear in summer, Kerosene emulsion. | 10-20 days later, Bordeaux for black knot. Later applications may be necessary to prevent leaf spot and fruit rot, use Ammoniacal copper carbonate. |
| <i>Potato</i> Scab, blight, beetles. | Soak seed for scab in corrosive sublimate solution (2 ozs. to 16 gals. of water) for 30 minutes. | When beetles first appear, Arsenites. | When vines are two-thirds grown, Bordeaux; Arsenites for beetles if necessary. | 10-15 days later, repeat third. | 10-15 days later, Bordeaux if necessary. | |
| <i>Quince</i> Leaf and fruit spot. | When blossom buds appear, Bordeaux. | When fruit has set, Bordeaux and Arsenites. | 10-20 days later, Bordeaux. | 10-20 days later, Bordeaux. | 10-20 days later, Bordeaux. | |
| <i>Raspberry, Blackberry, Dewberry</i> Anthracnose, rust. | Before buds break, copper sulphate solution, Bordeaux. Cut out badly-diseased canes. | During summer, if rust appears on the leaves, Bordeaux. | Repeat second if necessary. | Orange or red rust is treated best by destroying entirely the affected plants. | | |
| <i>Rose</i> Mildew, black spot, red spider, aphids. | For mildew, keep heating pipes painted with equal parts of lime and sulphur mixed with water to form a thin paste. | For black spot, spray plants once a week with Ammoniacal copper carbonate, using fine spray. | For red spider, spray plants twice a week with Kerosene emulsion. Apply to underside of foliage. | For aphids, spray affected parts with Kerosene emulsion when necessary. | | Kerosene emulsion must be used very dilute, as rose foliage is easily injured by it. |
| <i>Strawberry</i> Rust. | When growth begins in spring, Bordeaux. | As first fruits are setting, Bordeaux. | As first fruits are ripening, Ammoniacal copper carbonate. | When last fruits are harvested, Bordeaux. | Repeat third if foliage rusts. | Repeat third if necessary. |
| <i>Tomato</i> Rot, blight. | As soon as disease is discovered, Bordeaux or a cheap fungicide. | Repeat first at intervals of 7-10 days. | | | | |

*The most important disease of the plum is black knot. Bordeaux Mixture for plums after blossoms have fallen.

black-knot was allowed to exist. But apart from this, an honest effort should be made by the farmers themselves. The man who has a lot of black-knot on his premises should realize the fact that he is doing a positive injury to the whole neighborhood in which he lives by his neglect, and that he is in honor bound as a good citizen and honest man to destroy it.

Small Fruits for the Farmer.

The Ontario farmer whose table is not provided with an abundance of fresh fruits, is not living up to his privileges, and the very first thing the average farmer will say in answer to that is that he has positively no time for these things, and that answer is so positive and so conclusive that it practically settles the matter. But, hold on, my friend. Granted your time is fully occupied on the farm, you are not doing this work for fun, but for the profit you can make out of it. You are growing grain, and roots, and hay, to feed your cows and your fattening steers and hogs, and you expect to get a profit on your labor. But I want to call your attention to a little strip of land that you can work at odd times, that will take very little of your time, will cost you little or nothing, and will give you a bigger profit by far than any spot of equal area on your farm. But the farmer says, "Oh, well, I would rather buy what berries I want than bother with a garden." And how many will he buy? How often will he have fresh berries on his table during the summer? He will buy a few for canning, a pail or so of each kind, and expect his wife to make these last out the year. But as for fresh berries, to use with cream and sugar, they are an unknown quantity, as far as the average farmer's table is concerned; just where they ought to be in abundance. They are not an expensive luxury to the farmer; he has his own cream, and sugar is cheaper than ever it was. And there is no man in a position to enjoy these luxuries so cheaply and to better advantage than the farmer, if he is only willing to see it. On the score of health alone, the garden is a gill-edged investment. It helps to keep away the doctor and the patent medicines. A dish of ripe strawberries every day during the season will give the bilious person a new lease of life. There is something in the juices of fresh ripe fruit that tones up the digestive organs and stimulates the sluggish liver, and makes you feel that life, after all, is worth living.

The average farm contains 100 acres. Surely a third of an acre of this can be used for growing fruit for the home supply. That is only the two-hundredth part of the farm, a small fraction indeed. This should be in the form of a long, narrow strip, that will be easy of access, and where none of the live stock can get at it. If the soil is a nice sandy loam, or a clay loam, it will do nicely. First manure well, and put in some kind of hoe crop, preferably potatoes, and keep well cultivated and clean. This is to thoroughly clean the land before planting to fruit. Plant three rows of strawberries, fifty yards long; have the rows four feet apart, and the plants sixteen inches apart in the rows; plant Bubach, Williams, Haverland and Crescent. Plant as many rows of raspberries, but have the rows seven feet apart, and the plants three feet apart in the rows. Plant half a row with Marlboro for early, and the rest with Cuthbert, Landen, Columbian and "Older." The last named is a black cap, and the Columbian is a cross, a purple berry, and a good canner. Half a row is enough for the last two named. Then plant two rows of blackberries, one each of Agawam and Eldorado; these rows should be eight feet apart. One row of currants and gooseberries, seven or eight feet from the blackberries, and four feet apart in the row. Of gooseberries a few bushes will do; plant Pearl and Downing. Plant the remainder of the row to currants. For red, plant Fay's Prolific and Cherry; for white, the White Grape; and for black, Champion and Black Naples. A strip of land next to the strawberry rows should be left for renewing the patch. It can be well manured, and used in the meantime for growing early potatoes. Some new rows of strawberries must be set every year, as the life of a strawberry plant is short, and as you can only get two full crops, you must renew; but the other fruits on good soil, with fair treatment, will last for several years. Get good, healthy, vigorous plants to start with, and, now, here is not much over a quarter of an acre occupied, and you can't make any better investment on the farm. The methods of cultivation and pruning this little plantation will be discussed in future numbers of the "Advocate."

A wheat stack has lately been threshed in Suffolk, England, which was harvested thirty-four years ago. It was the produce of five acres, and the circumstances under which it was left unthreshed were that the owner had vowed that he would not thresh the stack unless wheat reached a certain price. The owner died, however, and the neighbors threshed the stack, from which twenty sheaves only could be got in fair condition. A great many of the sheaves were simply bundles of decayed straw.

Railway Commissionership.

Thorold, March 23rd, 1903.

"Dear Sir,—At a meeting of the Niagara Peninsula United Fruit Growers' Association, held at Niagara Falls South, on the 10th of March last, the members of the Executive Committee present, seven in number, united in requesting our President, Mr. D. J. McKinnon, to allow his name to be presented to the Dominion Government as a fit and proper person to be appointed on the proposed Railway Commission. Mr. McKinnon declined to accept the nomination off-hand, but after private conversation with a number of growers has expressed a desire to have the whole committee consulted, and to do as they wish!

"As a grower of fruit on a very large scale, Mr. McKinnon is well known to us all. He is also president of one manufacturing company, vice-president of another, and a director of a third—all important concerns. His experience in farming and manufacturing, and his wide knowledge of public matters, his independence of character, no less than his love of justice, would make him a valuable member of the Commission, and I think the fruit growers and farmers of this district would do well to support him. If you are of this opinion, I will be glad if you will sign the enclosed and return at once to our Secretary.

"Yours truly, W. M. HENDERSHOT."

We are informed that in reply to the above circular, addressed by the ex-president to the members of the executive of this the largest

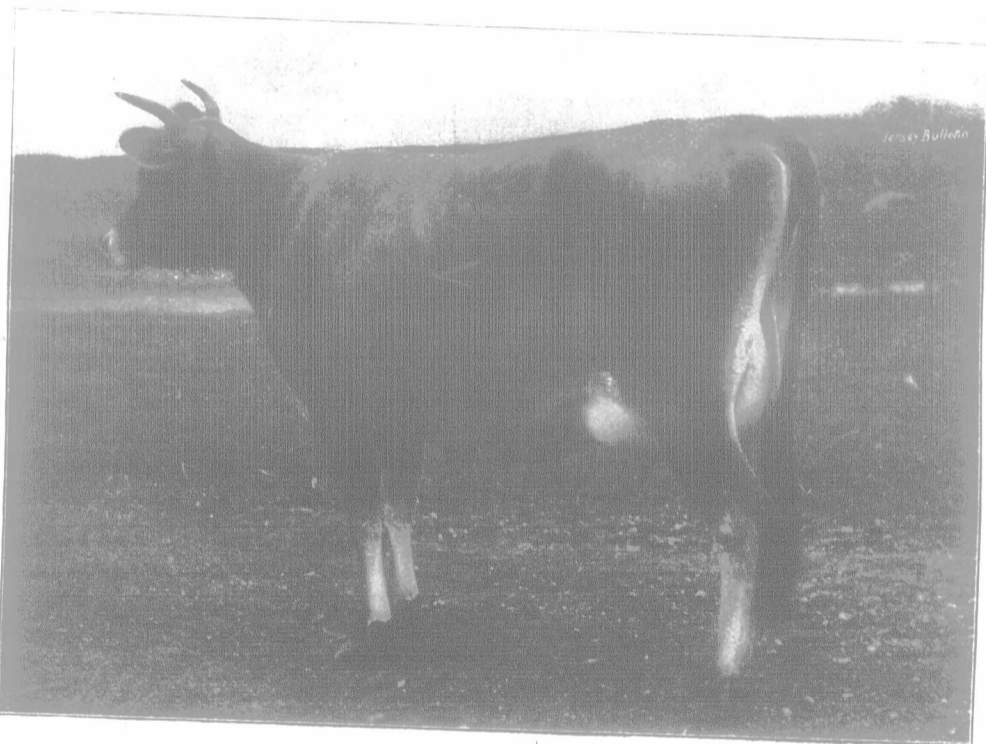
Some Essentials for the Successful Gardener.

Get good fresh seed of the best varieties from a reliable seed firm, but do not run too much after novelties, as the amateur is most apt to do. The fact that the standard sorts are still catalogued, while varieties that were formerly considered new and promising have been discarded, shows that they still possess good qualities, and, in general, are most satisfactory, although some novelties planted for comparison gives an added interest to the garden.

Read and study what you can of successful men's experience, but do not make the mistake of taking their suggestions too literally. Remember that localities differ, soils differ, and other things combine in producing different results from following them to the letter. The successful man is the one who can glean the principle, the kernel of truth, from such suggestions or description of methods, and apply it to his own conditions. Don't invest much money in implements and fertilizers, unless you are sure of receiving a corresponding advantage from their use. If your garden is not above a quarter-acre, hand implements, especially the steel rake, are the best tools to use. The place for the more complicated seeders, etc., is in the large market gardens. Above all, don't put your garden in beds. If you buy plants, be sure of what you are getting. A box placed in a sunny window and covered at night will give enough plants, if the right seed is sown in good soil, for an ordinary family. If your garden stuff last season grew rank and did not yield as well as was expected, do not blame the soil or the weather. You have probably too much of a good thing (nitrogen) in the soil, and by withholding stable manure and applying

chemical fertilizer, wood ashes, or even lime instead, a marked improvement will result. Visit a successful grower and see what system he has and get an idea of the methods he practices. Examine closely the prize-winning specimens of products at the exhibitions, and try to equal or surpass them your self. Work hard for success, but don't slave at it; be thorough. Don't wait for weeds or pests to appear, prevent them by thorough cultivation and spraying, and thus keep the plants growing until harvest. Use your brains, you can't depend altogether on main strength. To secure good crops at the least expense requires considerable brain work. Last, but not least, be interested. Your success will be measured by your care and interest, and all things being for you.

F. MACKINLAY.



MILTON'S GENTLE IDA 168522.

No. 24 in catalogue of Case & Walker's Jersey Isle Stock Farm Herd, to be sold at auction, April 28th, at Rushville, Ind. Dam of Golden Fern's Gentle Ida—No. 22 of catalogue. (See Gossip, page 332.)

Fruit-growers' Association in the Province, twenty-five out of twenty-nine have responded favorably, and two others are expected to do so. The Presidents of the Provincial Fruit-growers' Association and of the Niagara District Fruit-growers' Stock Co. have taken similar action, with what result we have been unable to learn. A quarter of a century's intimate friendship with Mr. McKinnon enables us to endorse to the full all that is said by Mr. Hendershot. The agricultural interests of Canada should have at least one representative upon so important a Board. That representative should be a man of mental powers, broad enough and acute enough to discover what is right as between the producers of the country and the public carriers. He should be a man both strong enough and tactful enough to advocate the right in an effective manner. Few men could do this better than Mr. McKinnon.

Treat your garden well, equal, it will do the same for you. Halifax, N.S.

The Tree Plugging Process.

From many quarters commendations are reaching us of the articles in the April 1st "Farmer's Advocate," turning daylight in upon the alleged method of destroying insect pests and fungous diseases in fruit trees by plugging substances into holes bored in them. The statements by Mr. John Dearness and Prof. F. T. Shutt showed the folly of such attempts, and the analysis by the latter of a sample taken from a tree that had been treated showed that it contained simply a mixture of sulphur and charcoal. A charge of 25 cents each was made for plugging the trees by the agents or parties holding township rights, which were sold at \$200, and the mysterious material—of which they did not receive the formula—being furnished them at 25 cents per pound. A few cents' worth would plug a tree. Since last issue we learned from Mr. Hugh Cousins, of the Railway Mail Service, that nine years ago several trees were plugged in his garden at Windsor, Ont. At our request he bored out the plug of a large cherry tree, and to his surprise the sulphur was found evidently in the same condition as when it was inserted nine years since. He could not see that it ever had the slightest beneficial effect upon the tree, and the boring was more or less of an injury. This bears out very clearly the statement by Prof. Shutt, that the stuff would simply lie in the tree inert and useless. Mr. Cousins' elder brother reports the same notion, that trees might be benefited

California Wash for the Scale.

The Ohio Experiment Station has issued a special bulletin, calling attention to the effects of the lime, salt and sulphur wash (California wash) in the destruction of the San Jose scale. The wash consists of: lime, 15 lbs.; sulphur, 15 lbs.; salt, 15 lbs.; water, 50 gallons. The lime is slaked and made into a thick milk; the salt and sulphur are added and a thick paste formed. The mixture is then diluted with twenty gallons of water, and boiled for about two hours; enough water is then added to make 50 gallons. The mixture should be applied hot, and to keep it in this condition live steam is most useful. It is applied just as the buds begin to swell, and should cover every particle of the tree.

by plugging, was in existence 50 years ago. It is a long-lived delusion. How any one could expect to poison insects in that way passes comprehension.

POULTRY.

Feed for Young Chicks.

The first feed a young chick gets is the most important in its existence. It is its start, and a start in the right direction means a good deal in poultry-raising. For the first twenty-four hours of its life the young chick just wants to see the sights and chirp, by that time he will relish a feed of hard-boiled eggs and stale bread crumbs, and this diet may be continued for the first week. Corn cake and fine beef scraps are also good. As grit, sand or gravel is a hen's teeth, provide the chicks with some in their first feeds. By the time the chicks are ready for their first meal, the hen will have been satisfied with some kind of a grain ration, and coupled up where she will not eat all of the nicely prepared chicken food. At the end of the first week a greater variety may be introduced into the bill of fare, and onions, grass and other green food should form a part of the ration. Cracked grains may soon follow, and later on whole grain may form the bulk of the feed. Grit and good water are essential throughout. Milk is also very useful for the youngsters, especially when used to dampen the stale bread, eggs, corn cake, etc. Avoid extremes of wet, cold and heat, and see that the food is always clean and pure. Sloppy or sour food brings on diarrhoea, therefore squeeze the moisture out before feeding.

Nest Boxes.

To the Editor "Farmer's Advocate":
Sir,—Having read in your April 1st number the article entitled, "Poultry-raising in Assiniboia," by Mrs. A. Neville, my attention was particularly drawn to her method of preventing hens from eating their eggs. I have tried her plan of curtaining boxes, but I have found, by experience, that nail-kegs, with just a little straw in the bottom, make better nests than boxes. When the hen is down in the nail-keg on the nest, she does not have room to eat the eggs, and if she stands on the top of the nail-keg she cannot reach them. If boxes are preferred for nests, a good way to prevent the hens from eating their eggs is to fasten a piece of old linen on the four top edges of the box (small boxes are preferable), and cut two slits in the center of it, at right angles to each other, for the eggs to drop through. The linen must be left slack enough to cause the center to come within an inch or two of the straw beneath, so that the eggs will not break when falling. When the egg is laid it falls through the slit, and the hen is prevented from eating it. I hope I have made these suggestions clear, and that they may be of some benefit to your readers.
MRS. M. R. SPRUNG.

Northumberland Co.

Turkey Ways.

When the old turkey begins peering around under trees and behind boxes and buildings, it is a good plan to set out some kind of a nest to attract her. It will encourage her to lay, and if she condescends to use the nest, much time is saved in getting her eggs. In raising turkeys, try and get enough eggs to place under a hen at the same time the turkey is set. The old turkey can then tend to both flocks, and will prove a better mother than the hen.

Producing Laying Strains.

Perhaps the most useful experiments in the poultry business are carried on at the Maine State University Farm. Here hens must have a record of at least 200 eggs per annum, and by breeding from these individuals the egg-producing trait is firmly fixed in the breed. Cockerels from such breeding are sold to the farmers throughout the State, thus disseminating the good work. Work along these lines, we believe will be of infinitely more value to the breeds than the extreme efforts put forth to produce fancy markings, regardless of the usefulness of the birds for eggs or meat.

The story by "Whip," in another column, is taken from the "Farmer's Advocate," London, Ont. Every man or woman that ever rode or drove a horse will be delighted with the story. To our mind the "Farmer's Advocate" is the best agricultural and stock paper in Canada, and it equals any related anywhere. There are scores of farmers among the readers of the Eastern Chronicle who are interested in the "Farmer's Advocate" very great interest. Address: The Western World, 111-113, Ontario St., Toronto, Ont. The Eastern Chronicle, New York, N. Y.

APIARY.

Foul Brood.

To the Editor "Farmer's Advocate":

Sir,—Foul brood will soon be a thing of the past in Ontario, which at one time had more foul brood apiaries than any other Province or State in the world, and now has less diseased ones than any other country. Ontario has to-day more sound and very choice apiaries for the number kept than any other country in the world, and what has brought about such great results I will here explain.

In 1890, Mr. Gemmill (one of the best all-round beekeepers that any country ever produced) saw very plainly that the whole bee industry of our Province was going to be wiped right out by the rapid spread of foul brood, with no law to check it or prohibit the sales of the many diseased colonies that were being shipped into very many localities. Mr. Gemmill spared neither time nor expense until he got the Foul Brood Act passed, which has proved to be the best thing ever done for the bee industry of Ontario. Just as soon as the Act was passed, I was appointed Inspector for the Province by the Directors of the Ontario Beekeepers' Association, on account of it being widely known that I had been curing diseased apiaries for years before that, and had been a success at the business, and for this reason was considered a suitable man for the position.

I knew that I had a big job before me at that time, and wanted a few thousand pamphlets published with my method of treatment in to be sent to every beekeeper in the Province. This was complied with, and 10,000 of these little books were ordered to be printed at once. A little later I wrote, asking to have 500 of these printed in German. This was also granted, and in a short time after that the 10,000 foul brood pamphlets were sent direct from the Minister of Agriculture to the beekeepers. These were a great help to me in getting many diseased apiaries cured. The Directors of the Ontario Beekeepers' Association took hold at that time and helped me all they could, and sent me lists of the apiaries that they wanted inspected, and urged the beekeepers everywhere to go strictly by my treatment, which helped me immensely to get the disease wiped out. The first season that I went out on my rounds through the Province I found the disease in every village, town and city that I went into, and also in every country place where bees were kept, and now I am very much pleased to say that I have succeeded in getting the disease almost driven out of our Province, and have it under control and can very easily attend to the few apiaries that are suspected to have a little of the disease in them. I have a few apiaries in the County of Norfolk that are suspected to have the disease, and a few in the County of Simcoe, and a little work to do in Western Ontario and some down East, and this is all that I know of, and I know more about the true condition of the apiaries of Ontario than any man in it.

Mr. N. E. France, of Platteville, Wis., is, and has been, the only Inspector of Apiaries for Wisconsin.

Mr. W. Z. Hutchinson is the only Inspector appointed for Michigan. But here in Ontario we have two Inspectors to do the work, myself and Mr. Gemmill, and I have only sent him out but twice in the last ten years.

Mr. Gemmill and I are not enough to satisfy some three or four men, and these men want local Inspectors appointed all over the Province. We have 43 counties in Ontario, and counting that we have eight townships in each county, that would make 344 townships. Now, suppose that we appoint an Inspector for each township, and that each of these 344 men were to send in his bill at the end of the season for \$30.00, that would only amount to \$10,320.00. Where would this little sum come from? Would these men make no mistakes? They certainly would, and very many of them, and when they would find foul brood, black brood, starved brood, chilled brood, and brood that had been poisoned through some foolish man spraying fruit trees while in full bloom, they would report many cases to be foul brood when it was not. I received more or less reports of this kind every year since I have been Inspector, and some from beekeepers that I did think would know it, and when I got to their place was very much surprised to find that they were mistaken, and that it was dead brood of another kind, and not foul brood at all.

Any beekeeper that has foul brood in his apiary should apply to me to help him, and he can depend on it that I will never report to any person but the Minister of Agriculture what I found in his apiary.

No beekeeper should be foolish enough to allow any person to examine his colonies that would report that his apiary had foul brood, if he found it there, because it hurts the sales in all such cases long after the diseased apiaries have been cured. Cure your diseased colonies if you can, and if you cannot, apply to me, and if you have good reason to believe that the disease is in other apiaries in your locality, send me a list of the

apiaries you want inspected, and I will see that they are cured, but do not ask me to tell if I find the disease in any of them, because it would cause trouble and do others no good. I have to see that the diseased apiaries are cured, and that is sufficient.
WM. McEVROY,
Wentworth Co. Provincial Bee Inspector.

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.

[Answered by our Veterinary Editor.]

Subscribers are kindly requested to read the conditions at the head of this department before writing or mailing their enquiries.

CHRONIC DIARRHOEA AND FOUNDER.

1. Seventeen-year-old mare has had diarrhoea for six months. She eats well, but does not thrive.

2. Mare, when very warm, was allowed to stand in a wind. She is stiff, discharges from eyes, and does not eat well.
F. A. S.
Essex Co.

Ans.—1. As this mare has only lately been affected in this way, we are safe in assuming that she is not constitutionally washy. There is little doubt that the trouble is with her teeth. She cannot masticate properly, and hence the diarrhoea. Have her teeth dressed by a competent veterinarian, and the trouble will no doubt cease.

2. This mare is foundered, and has inflammation of the eyes, from the effects of the reaction caused by being exposed to the wind as stated. Had she been treated promptly, there would have been a perfect recovery, but now, as both troubles have become chronic, a perfect recovery, especially of the stiffness, is doubtful. Purge her with 8 drs. aloes and 2 drs. ginger. Bathe her eyes repeatedly with warm water, and put a few drops of the following lotion into each eye, three times daily: Sulphate of atropia, 10 grs.; distilled water, 2 ozs. Remove her shoes, and blister around the coronet once monthly, for three or four times, with the following: Two drams each, biniodide of mercury and cantharides, mixed with two ozs. vaseline. Apply in the usual way.

BLEEDING FROM UMBILICAL CORD—BOG SPAVINS

1. Last year when mare foaled the navel string was not broken. I cut it off a few inches below the abdomen; it bled freely; I tied it with a thread, but this did not stop the bleeding, and the colt died. What should I have done?

2. Two-year-old colt has puffy lumps on both hind legs, where spavin comes. He is not lame.
Peterboro Co., Ont.
G. E. J.

Ans.—When the umbilical cord (navel string) is not broken off during delivery, it should be tied tightly with a strong soft cord that has been saturated with a five per cent. solution of carbolic acid. Tie about an inch below the abdomen, and cut off an inch below the knot. It is good practice to have some cord in a carbolic acid solution, ready for use if needed, but if such be not prepared, any clean cord may be used. Bleeding cannot take place when the navel cord is properly tied.

2. These are bog spavins. Repeated blistering with 2 drs. each, cantharides and biniodide of mercury, mixed with 2 ozs. vaseline, and applied in the usual way, by rubbing the parts well daily for two days, washing off the third day and then applying vaseline daily, will reduce them. Blister every month.

SWOLLEN TEAT, AND SORE FEET.

1. I have a cow with a swollen teat. It has been swollen for a month, and gives lumpy milk.
2. Another cow has sore feet; she appears to be lame. She stands in a box stall.
Glengarry Co.
E. L. D. MacM.

Ans.—1. There is inflammation of the quarter. If the teat alone were involved the milk would not be lumpy. As the condition has become chronic, it is probable recovery will be slow. Bathe the quarter long and often with warm water, and after bathing apply camphorated oil, with smart friction. Draw the fluid out of the teat four or five times daily, and feed lightly, so as to not encourage the secretion of milk.

2. It is probable this cow has inflammation in her feet, caused by standing too much, and want of exercise. Apply poultices of linseed meal, or boiled and mashed turnips; apply warm, and keep warm by adding warm water occasionally. Change the poultices twice daily. If any eruptions appear between the clouts, or on the coronet, dress with carbolic acid, one part; sweet oil, twenty parts.

UNTHRIFTY CALF—UNNATURAL MOTHER.

1. Heifer, two months old, kept clean and warm, acts dumpish; appetite poor, is weak, lies most of the time, grinds her teeth, is gaunt, stomach seems to have dropped down. Feed milk and oil meal.

2. Mare due to foal in May, would not own her colt last year, and I had to raise it on cow's milk. How can I force her to own the foal this year, and if this be impossible, what is the best method of feeding it? N. Y. State. W. B. H.

Ans.—1. Your calf has indigestion. See that the milk given is of good quality, and add to it about one-sixth of its bulk of lime water. Feed in small quantities and often for a time, and as her digestion improves give larger quantities, and less frequently.

2. Mares that are vicious with their foals can sometimes be controlled by applying a twitch while the foal takes nourishment for a few days. I have known good results from spraying the colt with brandy and rubbing some of the same on the dam's face and nose. If all means fail, the colt must be removed and given milk from a freshly-calved cow, or the freshest one procurable. The milk should be given warm and mixed with water, in the proportions of two parts milk, one part of water, with a dessertspoonful of brown sugar added to a pint of this fluid. At first the colt needs to be fed often, and a little at a time; as it grows older, larger quantities can be given at longer intervals. As you succeeded in raising the one last year, I see no reason why you should not adopt the same plan this year if necessary.

BARBED-WIRE WOUND.

Horse cut his leg on the inside from the hock to the fetlock, with barbed wire. The hock was, and is now, very much inflamed. I treated, and got a lotion and caustic, but the wound does not heal. There is no proud flesh. He is not lame. Stormont Co. J. B.

Ans.—Barbed wire wounds are usually slow to heal. Apply cold water and carbolic acid one part; water, twenty parts. The more cold water you apply the better. When the wound has healed you will be able to reduce the thickening that will probably remain by repeated blistering.

CRIBBING.

1. Is there any way to stop a horse from cribbing?
2. Is it lawful to sell such a horse at public auction without notifying the bidders?
3. Will running a fine saw between the incisors be of any use? Chateauguay Co., P. Q. J. R.

Ans.—1. A permanent cure cannot be effected. Buckling a strap tightly around the throat will prevent the practice of the vice, but when the strap is removed he will, in all probability, crib again.

2. Yes; if he be sold without warranty.
3. No; this will do no permanent good.

HEAVES.

Fed mare for two months on dusty clover hay; about Christmas she began to heave and cough. I have given powders and dampened her food, but she is not much better. She heaves worse when heated. Addington Co., Ont. H. B.

Ans.—Your mare has heaves. This is the usual result of feeding hay of poor quality, especially clover. The disease is incurable. If you feed clean wheat straw and grain of good quality, all dampened with lime water, you will relieve the symptoms, but cannot effect a cure. Feed often, and a little at a time, in order to not allow her to overload the stomach at any time. Drugs have no permanent effect.

PIGS WITH SKIN DISEASE.

A litter of pigs became itchy at three weeks of age, though nothing could be seen wrong with them. They did well until weaned, and then became covered with a black scurf and pimples. Norfolk Co. J. I.

Ans.—The pigs have a skin disease, probably due to a parasite. Wash them thoroughly every second day until cured, with creolin, one part; water, thirty parts. Clean the pens out well and wash thoroughly with a five per cent. solution of carbolic acid, and when dry apply hot lime wash with a little carbolic acid in it.

OBSTRUCTION OF MILK DUCT.

The passage into one of my cow's teats is partly closed. The milk is good, but it takes a long time to milk this teat. Renfrew Co. J. T. A.

Ans.—So long as you can get the milk, even though it takes time, I would advise you to leave well enough alone, as interference, especially when the obstruction is high up in the teat, is often followed by severe inflammation. If the passage becomes entirely closed, either allow the quarter to become inactive or employ your veterinarian to operate. The operation requires an expert, with a special instrument. Unskillful operations with knitting needles, etc., invariably produce serious conditions.

SCRATCHES.

Last fall, my team of two-year-olds, while plowing, became affected with scratches. They weigh 1,400 lbs. each. They still have scratches. Peterboro Co., Ont. A. J. M.

Ans.—Purge each with 9 drs. aloes and 2 drs. ginger. Follow up with 3 drs. hyposulphite of soda night and morning, in damp food. Poultice the heels for two days and nights with boiled turnips, applied warm three times daily. Then apply three times daily a lotion composed of 1 oz. each sulphate of zinc and acetate of lead, 2 drs. carbolic acid and 1 pt. water. Do not wash.

GOITRE IN SHEEP.

I have a valuable Leicester ewe with goitre or thick-neck. Would you kindly give treatment for same, or other advice as would be safe. Wellington Co., Ont. I. E.

Ans.—The application of iodine ointment has, in our experience, proved successful in reducing the enlargement known as goitre. As the ointment would discolor the wool, if it is a show sheep we would advise the use of liquid iodine, with the color eliminated, which is used for the same trouble in the human patient, and which can be procured at any drug store.

CALVES THAT WILL NOT EAT.

Calves, five and six months old, fed on skim milk, will not eat hay, oat chop, or roots. They chew at all the wood they can reach. Waterloo Co. J. D.

Ans.—Give each twenty grs. phosphate of lime, in a little water, as a drench, three times daily. Smear the mangers, etc., with a solution of aloes, or some foul-tasting material. Feed the food mentioned in small quantities, and often. Unless there is some organic disease, which would require a personal examination to diagnose, this treatment will suffice.

Miscellaneous.

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KILLING TWITCH GRASS.

Could you give a good method of cleaning a farm of twitch grass? Dufferin Co. SUBSCRIBER.

Ans.—Twitch grass is a most persistent perennial; it propagates both from seed and from root stems. It seldom goes to seed, and efforts are directed toward preventing the roots growing, and to cause them to decay. Shallow cultivation, frequent turning of the soil, root crops, corn crops, clover crops, summer-fallowing, and cultivation immediately after grain is taken off, are the most effective methods employed. In many cases the weed is worse on poor, cold or sour land. If such is the case, manure, drainage and a little lime would make the soil less favorable to the growth of the grass. Avoid leaving the land long in meadow; use care in taking plows, harrows, cultivators, etc., from field to field. Follow some such a course as the following: Summer-fallow; wheat (seeded), red clover, one crop; roots, corn or peas; oats or barley, seeded with red clover. Cropping with grain and giving one plowing in the fall encourages its growth, by breaking up the roots and spreading the nodes through the soil just at the right time. Cultivation in June and gang-plowing and harrowing in September are more efficacious. Corn crops, by shading the soil, tend to smother the weed out, and if a field were summer-fallowed one season and sown with corn the next, the grass should be pretty well stamped out.

PURE-BRED STOCK.

Can pure-bred stock be bred by crossing and re-crossing?

Ans.—Practically pure-bred stock may be bred by using, consecutively, only pure-bred males of the same breed for several generations on original female foundation stock, pure-bred or of mixed breeding, or of common stock of no known breeding, but produce of such breeding is not eligible to registry in any Canadian herd or stud books, with the exception of, perhaps, that for one class of horses. Approved cattle having five crosses by registered sires are admitted to registry in the English Short-horn Herdbook. New breeds have been originated in England and the United States by crossing and re-crossing with two or more pure breeds till a desired type has been fixed, to which the animals in time are brought to breed to type with sufficient certainty and uniformity to be recognized as pure-bred, and given a status in a register for such new breeds.

CROWS AND SEED CORN.

How can I prevent crows from taking seed corn? Hants Co., N.S. G. T. S.

Ans.—By stringing cord on poles through the field, and by shooting at them occasionally. Some people report success from the soaking of the seed with coal oil, and some use coal tar for this purpose; others say these precautions are of no value. The gun is a good thing to frighten them away, if used at about daylight in the morning.

DIZZY FOWL.

Some of my hens are dizzy when they come off the roost in the morning. In about two hours they are all right. Eyes are half shut. Also a pair of ducks seem to have lost their voices, and the power of their legs and wings. Bruce Co. S. G.

Ans.—1. The giddiness is probably due to indigestion; change the diet, and feed plenty of roots and cut clover hay, grit, etc., and lessen the quantity of grain. A severe cold causes the trouble with the eyes. If there are not too many, give each a ball about the size of a hazelnut, containing equal parts cayenne pepper, mustard and ginger, mixed with lard to hold together. A good remedy for the whole flock is hard soap dissolved in water until it is about as thick as soft soap; a tablespoonful of this to a gallon of water, given to drink. See also that there are no lice.

2. Give the ducks a change of diet, and see that they do not rest in drafts. The soap water will do them good too.

PREPARING STUBBLE FOR OATS.

Would you advise as to the best method of preparing stubble land for oats or barley? The wet weather prevented plowing last fall. Perth Co. W. B. C.

Ans.—This question indicates that there are still some of our readers who do not practice a rotation of crops that provides for the sowing of cereals on clover sod, root, corn or pea land. Other methods will answer, though, until fertility begins to fail, then there will be some earnest effort made to economize plant food. In this case plowing is necessary, to bury the stubble and to work up the soil. Shallow plowing, however, is best. It answers the purpose of forming a seed-bed; it buries the stubble; and it also allows the capillary water of the soil to approach nearer the seed before being arrested by cultivation. Harrowing and other fining operations will, of course, have to be practiced according to the texture of the soil. Rolling with a heavy roller just before sowing will settle the soil and assist the water to rise to the surface, then if the drill or harrows follow the roller, an earth mulch will be formed to retain such moisture about the seed.

THE BUFFALO MOTH.

Can you or any of your correspondents tell me anything about the Buffalo moth, and how to exterminate it? Middlesex Co. S. T. S.

Ans.—The Buffalo moth (*Anthrenus Scrophularia*) is not a regular moth, but a beetle. They fly in the spring and lay their eggs in houses, in woollen goods and carpets. The young are clumsy, clothed with hairs, and can expand two larger tufts behind. In this larval stage they feed on woollens. Naphthalene in crystals or balls should be used as a preventive. Woollen goods, before being put away for the summer, should be thoroughly brushed, beaten and sunned, then put into large paper bags and the ends pasted up. They may then be laid away with naphthalene balls between packages. When carpets are infested, gasoline may be used with safety; it will not injure any but the cheapest fabrics. A better plan with carpets, but involving more work, is to take them up, beat and brush them, and thoroughly clean the floor before relaying the carpet. Neither of these methods will destroy the eggs, and it will be necessary to keep a close watch for any larvae that may hatch about a week later. In badly infested rooms, it might be well to try carbon bisulphide. Put a little of the liquid in a flat dish, close the room up tightly, and leave until the chemical has evaporated. Avoid taking a light near the liquid. Use naphthalene freely in boxes, drawers, and closets.

KILLING THISTLES.

Will you please let me know if there is any known remedy for eradicating the Canada thistle? I have only one small patch, and have cut and salted them, all to no good. I don't care how expensive the remedy is if it will only kill them. B. C. H. M. V.

Ans.—Cultivation is the method practiced in most districts to kill thistles. On a small patch, however, gas lime might be tried, although it would render the land unfit for crop for a season or two. They might, also, be smothered out with a pile of straw or other refuse. A solution of white arsenic would kill them, but it would be possible for them to start again from the roots. Letting them grow till in bloom and then cutting close to the ground or plowing down is recommended by some. We have seen them exterminated on pasture by the former method.

DORKING EGGS—HENHOUSE PLAN.

1. Would you kindly let me know where I could get S. G. Dorking eggs?

2. A plan of a serviceable and cheap henhouse would also be acceptable. Ontario Co. C. B.

Ans.—1. See advertisement of Pine Hill Poultry Yards, page 339, April 1st issue.

2. See March 2nd issue in Poultry Department. The plan there outlined is becoming very popular.

SPAYING - PIGGERY PLAN - SCRATCHES.

1. What does the operation of spaying consist of?
2. Could I claim damages from a man from whom I bought some sows if I could prove they had been spayed?
3. Would you give me a good plan of piggery and henhouse combined?
4. Please give treatment for scratches?

Compton Co., P.Q. W. F.
 Ans.—1. Spaying consists of removing the ovaries from a female, usually done to prevent oestrus, to facilitate fattening, or to avoid annoyance in driving.
 2. Not unless they were guaranteed to breed, and that is not probable.
 3. See March 2nd issue, page 216.
 4. Give a purgative of from 6 to 8 drams of aloes and 2 drams of ginger, made into a ball with soap or molasses. Feed on soft feed for a day or two previous and subsequent. If the cracks are deep and the flesh inflamed, apply a poultice of boiled turnips or linseed, or bran, then apply three times a day a lotion consisting of acetate of lead, one ounce; sulphate of zinc, one ounce; carbolic acid, two drams; water, one quart.

PRUNING TO INDUCE FRUITING.

Could you tell me about what time of the year is best to trim up an orchard for fruit, most of trees being well grown? H. B. Frontenac Co., Ont.

Ans.—Pruning does not necessarily induce fruitfulness; cultivation, spraying, manuring, etc., must accompany it. Pruning, however, at certain times tends to induce fruitfulness. It is noticed that fruit is borne on fruit spurs (short, stubby branches); the first object of pruning will be to force the tree to produce these spurs. Care should also be taken not to break these spurs off in picking fruit or pruning. Theoretically, the time to prune to induce the growth of these spurs, is just when growth is beginning to cease, or about midsummer. Buds which produce leaves and fruit are formed during the late summer and fall. In their early existence, it is not possible to tell to which purpose they will be devoted, but by light pruning in the summer, a greater number of these buds are started, and the probabilities of a heavier crop are insured. Direct results from this practice are not always obtained, as it may be necessary for the tree to first produce spurs, but in the second year after such treatment some satisfactory results should be noticed. Summer, then, is the best time to trim the trees to induce fruiting.

BLACK-KNOT.

Has the law concerning black-knot ever been published in the "Advocate," if so, in what number? If not, would you let me know what it is, and who is supposed to enforce it? C. W. B.

Ans.—It is the duty of every occupant or owner of land to cut out and burn all black-knot found on plum or cherry trees on his land, so often each year as it appears on such trees. It is for the inspector (if any) appointed pursuant to Sec. 3 of R. S. O., 1897, Chap. 280, to enforce the performance of such duty; but information may be laid by any other person in respect of offences against the provisions of the Act. Such offences are punishable by fine of from \$5 to \$20.

REMOVAL OF WOOD.

A owns a farm with cedar on it. A sells some cedar to B, who pays for and cuts it, taking some home and getting permission from A to pile the rest upon the farm, which he does. A dies and wills place to C, who rents for one year to D, and sells in Oct., 1902, to E; E to get possession Jan. 1st, 1903. B's pile of cedar and a pile of wood which belonged to A being still on the farm, and there was no mention of either at time of sale, can E stop either B taking the cedar or C taking the wood? The agreement between C and E calls for the farm, together with appurtenances. R. C. Ont.

Ans.—No.

SOWS EATING HENS.

I have sows that have of late got into the habit of eating hens. I feed them all the mangles and apples that they will eat. Could you tell me through your valuable paper a way of curing them of this habit? A. N. Halton Co., Ont.

Ans.—Since the habit has been contracted, it can hardly be cured, unless the hens are removed from the sight of the sows for some time, until they have forgotten the gratification such feasting affords. In the meantime provide them with plenty of salt, charcoal and ashes. Meat scraps, occasionally, will not do them any harm.

MISREPRESENTATION.

A buys a horse from B at an auction sale. B says the horse is all right at the time the auctioneer starts to sell him. The horse turns out to be not as B represented him. Can A come on B for damages? W. F. Elgin Co., Ont.

Ans.—Yes.

STABLE ARRANGEMENTS.

1. I intend building a barn 74x46, and mean to put in cement flooring. What shape gutter should I use?
2. Is it best to tie young stock and fattening steers, or to give them box stalls?
3. Would calves not be better in boxes?
4. Would you put upright or flat windows in the walls?
5. Would it be best to have a cistern outside, and pump water in through a pipe, or place it inside the stable, where water could be drawn from a tap?
6. Is it safe to dig a well in the stable?

Simcoe Co., Ont. J. W. M.
 Ans.—1. The deep box style of gutter is very inconvenient to clean out, especially with cattle in the stalls. The style now preferred by many dairymen and feeders has a drop of six or seven inches from the heels of the cattle; then a bottom about twenty inches wide, slanting upward a couple of inches to passage floor, which slope prevents liquids working back on passage. The latter is about an inch higher at wall than outer edge of gutter. From end to end, the bottom of gutter is made level. Floor, gutter and passage are usually all made of cement concrete.

2. Stock will often do better in boxes than when tied up, and where a lot are kept they can be handled much more easily. The boxes should be large enough to hold about ten head, more or less.

3. Yes.
 4. The object of using the oblong-shaped windows is to get more light on the floor of the stable. The same end may be gained by using the square window and bevelling the inside of the window sill so as not to interfere with the downward course of the rays of light. The trouble in most stables is that the windows are allowed to become so laden with cobwebs and dust that their usefulness is almost destroyed. There is no doubt that the long windows will admit more light to the floor, but there is the danger of breaking, mentioned in your letter.

5. If there were a bank near the barn, into which the cistern could be built, and high enough to allow of using a float to regulate the water supply in a trough, at a lower level in the barnyard or stable, we would put the cistern in such a bank. If not, we would put it inside, provided we had plenty of room. We would build it of cement, and cover with an arched or domed roof, of the same material. An opening would be left at the center of the cover to admit the water, and to permit of cleaning out the sediment. A strainer, to catch the dust and other material in the water, would be placed near the entrance.

6. In some cases it is done, but the practice should be condemned from sanitary and other reasons.

REPAIRING SILO - PEELING POSTS.

1. I have a stave silo, built up to my barn, 25 feet high, is roofed even with eave of barn roof, and bottom ends of staves are getting rotten. Can I cut out, say two or three feet, from the bottom, and replace it with stone laid in with cement, or what is the proper way to repair it without rebuilding?

2. Which is the proper way to set cedar fence posts: to peel off the bark from the end that you place in the ground, or to leave it on and peel that which is above? Leeds Co., Ont. SUBSCRIBER.

Ans.—1. Yes, you could do that, but the inside of the foundation should be in line with the inside of the staves so that the ensilage in settling would not be obstructed. If this is not practicable, you could raise the bottom of the silo up even with the bottom of the staves. This, however, would be wasting considerable room.

2. This is a debatable question. Where there is considerable resin in the bark it forms a preservative for the wood. Very often, though, the bark sets up decay. It cannot be said in every case which is the better way, but if the posts are peeled all over, thoroughly dried, and treated with coal tar, their term of usefulness will be much prolonged.

FODDER CROPS.

1. Wish to sow something on a small plot to feed my horse through summer, and at the same time seed down for future use.

2. Have a small plot seeded to clover and timothy, but the timothy did not come up, and the clover is very thin. J. H. Middlesex Co., Ont.

Ans.—1. Put about one-half in with peas and oats, and seed with alfalfa, 20 pounds to the acre. Fodder corn on the rest will make good fall and winter feed. The peas and oats may also be cut for hay, if not all used before they begin to turn color.

2. You will probably get more feed off your land by breaking it up and sowing to oats for out hay, and seeding with red clover or alfalfa. Sow plenty of seed in the future.

DRYING UP A COW.

Kindly inform me how to dry up a cow that calved last January? She gives about 13½ quarts of milk per day. F. I. Durham Co., Ont.

Ans.—See last issue, Questions and Answers.

USING COMMERCIAL FERTILIZERS.

We have a lot of poor land (exhausted or nearly so), that is clay loam in texture, and situated five miles from a station. On these fields we wish to sow peas, peas and oats, and barley, and seed down with a mixture of timothy and clovers this spring. There is not enough obtainable farmyard manure, and we have ordered:

| | Per ton. |
|--|----------|
| 1 ton nitrate of soda, 96% purity, 19% ammonia | \$45.00 |
| ½ ton dissolved bone-black, 15%-18% soluble and available phosph. acid | 18.00 |
| 1 ton plain superphosphate, 14%-17% soluble and available phosph. acid | 14.00 |
| A large quantity of wood ashes of fair quality. | |

1. Have we ordered intelligently, and which of the two phosphoric acid fertilizers is the more economical?

2. (a) Speaking generally, what combination of these will serve our wants best? (b) How much of the combination should be used per acre? (c) When, and how, should the fertilizers be applied? (d) And any other special advice re application of fertilizers.

3. Will you outline a few practical ways in which to experiment for ourselves?

4. Kindly suggest a feasible system that would bring these lands up in fertility, and still not be too expensive. R. H. W. New Hampshire.

Ans.—1 and 4. If it were certainly determined that an exhausted soil, such as is commonly found in the New England States, was depleted of all three elements of plant food, this selection of fertilizers might be said to be intelligent, but in many cases such soils are simply suffering from a lack of humus and nitrogen. To bring such soils up to a high state of fertility, the humus in the soil must be increased by liberally using barnyard manure, and by plowing down green crops of peas, buckwheat, clover, etc. When the soil has become well filled with this humus, and is subjected to thorough tillage, the other elements which are present in the soil in sufficient quantities are liberated. Tillage, humic acids, and the decaying processes of vegetable matter, tend to liberate inert plant food. When the soil is overcharged with this humus, there may be a necessity for the use of commercial phosphoric acid and potash, but in many countries this stage is seldom reached and the principle underlying holds good. The cost of phosphoric acid in each of the fertilizers does not vary much, but quicker results will be obtained from the plain superphosphate, as it is more quickly soluble in the soil water, but the effect of the bone-black will probably be longer noticeable. For the present season the nitrate of soda may be necessary, but clover will gather nitrogen from the air much cheaper than it can be bought. Ashes may be said to be good value at all times.

2. Nitrate of soda should not be mixed with superphosphate, or dissolved bone-black, as a loss of nitrogen results, and the mixture is apt to be difficult to sow. Try about 250 pounds of the superphosphate per acre, and the same of the bone-black. Sow it at seeding, either by hand or with the drill. About 130 pounds per acre of the nitrate of soda will be sufficient, and can be sown about the end of May. Upon the peas it need not be sown as thickly as upon the oats. From 600 to 800 pounds of the ashes per acre would supply a considerable quantity of potash, and all the crops will probably need it. These may be applied immediately after seeding. In every case have the fertilizers evenly distributed, and on the top of the ground. Every farmer should read Prof. Roberts' book, "The fertility of the land," published by the McMillan Co., New York. If dealers have not got it, order through this office, price \$1.25.

3. On small plots try each of the fertilizers singly, altogether, and in different combinations, as: 1. Bone-black and nitrate of soda; 2. nitrate of soda and ashes; 3. superphosphate and nitrate of soda; 4. superphosphate and ashes. The first combination will indicate the need of potash; the second the need of phosphoric acid; the third the relative value of superphosphate and bone-black; the fourth the need of nitrogen.

SELLING MANURE.

My neighbor sold his farm: now he wants to sell the manure that is on it. Can he sell it, or does it belong to the man who bought the farm? Lisgar, Man. SUBSCRIBER.

Ans.—Assuming that it is manure lying about the barn, as in the ordinary case, it must be treated as being incident to the land, and unless reserved by the vendor at time of sale, it belongs to the purchaser, and the vendor of the land cannot legally sell it.

KEEPING HAMS.

Give recipe for keeping smoked hams in warm weather. New York State. W. B. H.

Ans.—Tie them tightly in sacks of paper or cotton, and hang in a dark, cool place. Care should be taken that no insects have access to them. An examination once in a while is necessary to see that they are keeping well.

CEMENT - VENTILATION.

1. How thick must I make cement on the bottom of a liquid manure pit?
 2. In using the King method of ventilation, how large a flue is required to carry the impure air from a stable 17 x 33 x 8, containing six cows?
 N. S.

READER.

Ans.—1. To make the pit water-tight, you will have to put a second coat of cement on the inside. The first layer may be from two and one-half to three inches thick, and the top coating, made of one of cement to two of sand, from one-half to three-quarters of an inch.

2. In ventilating a stable, the size of the flue is only one of the minor factors that operate. The velocity of the outside air, the difference between the inside and outside temperatures, the size of the intake, etc., all have a more direct bearing, and under these circumstances the size of the flue must be modified as the conditions modify. On a windy day a small flue will suffice, the same if the flue extend above surrounding objects—buildings, hills, trees, etc. With these six cows, a flue about one foot square, reaching well above the roof or into the barn above, and with a damper to regulate the rate of flow, should give satisfaction.

STONE SILO.

Could a stone silo, twenty-four feet high, have an opening from top to bottom, and be substantial and strong enough to stand?
 W. P.
 Carleton Co., Ont.

Ans.—A rectangular silo might have such an opening if bands of iron were imbedded in the wall and extended across the opening, thus binding the wall together. These would be necessary at intervals of about four feet. In a round silo we would not care to risk the opening, and heavy wire would be necessary to hold the wall intact. The wire is built in with the masonry. With either shape of silo we see no reason for the opening the whole height of the walls; also, we believe cement concrete would be more durable and satisfactory than stone. The round concrete silo is becoming very popular in Western Ontario.

BLOOD PURIFIER.

Please tell me the best blood purifier for horses?
 C. J. K.
 Clay Co., Mo., U.S.A.

Ans.—Purge the animals with from six to eight drams of aloes, according to size, and two drams of ginger, made into a ball. After this, if no specific disease exists, plenty of soft foods, as grass, roots, bran, linseed meal, etc., will be all that is necessary. If there is some particular disease it should be treated. It would help the action of the soft feeds to give a dram and a half of tartar emetic daily in the feed for about ten days.

FODDER CROPS.

I started to prepare a twelve-acre field of sod last fall for corn, and got about two acres plowed, but owing to lack of hands this spring, have decided to let the field go for pasture. What would you recommend me to sow on the plowed land, that would help some in the way of pasture?
 Lennox Co. R. M.

Ans.—Under the circumstances, we should recommend that part be sown with peas and oats and part with corn for fodder purposes, if you have some sort of portable fence to protect it from stock.

NOTES AND NEWS.

Live Stock Shipping Facilities.

In the recent annual meeting of the Western Stock Growers' Association, held at Medicine Hat, mention was made of the wretched condition in which the stockyards at Moose Jaw were found during the past season, being knee-deep in filth, and the drinking place for the cattle a mere bog. The "Farmer's Advocate" is pleased to learn that under the vigorous direction of Dr. J. G. Rutherford, the new Chief Veterinary Inspector for Canada, other yards on the C. P. R. line are being carefully investigated. We believe there is need for great improvement, both as to the extent and fitness of the accommodation for shipping live stock. Heretofore, it has been shamefully neglected by those whose business it should have been to look after such matters. Recently, the yards at Schriber station, the chief unloading place for Western cattle on the main line of the C. P. R. between Winnipeg and Montreal, and also a place for Eastern stockers and horses, was found in a bad condition, and the North Bay yards very much worse. The latter is a feeding place for stock going West. There is no provision for hay feeding, water troughs are rare, and the floor was a foot deep with filth. The C. P. R., it is reported, charge shippers \$18 per ton for hay (90 cents per cwt.), and it can be bought at North Bay for 65 cents per cwt. The North Bay conditions fall very hard on carloads of horses and stockers, and it is hoped that the vigorous action being taken by the Veterinary Inspection Department will result in proper provision being made for the summer and fall trade, which is certain to be very great.

Seed Growers' Association.

Cheques for the balance of the \$10,000 donated by Sir William C. Macdonald, of Montreal, for cash prizes to encourage boys and girls living on Canadian farms in the work of improving seed grain by selection, are being sent to those who were successful in the main competition. Ten prizes, ranging from \$25 to \$5 each, were awarded to the successful competitors, yearly, for three years, for both wheat and oats, in every Province. Altogether, 485 prizes were awarded in these yearly competitions, on the basis of the 100 best heads of grain sent to Prof. Robertson from the seed plots. Ten prizes, ranging from \$100 to \$5 each, were also awarded to the successful competitors in each Province in the main competition at the end of three years, for both wheat and oats. Altogether, 174 prizes were awarded in the main competition on the basis of the largest yields of cleaned grain from the hand-selected seed plots of 1901 and 1902. The crops produced on the hand-selected seed plots of these two years were grown from good plump seed, taken from large, well-filled heads, gathered by hand from the plants which were relatively most vigorous and large on the seed plot of the previous year. In awarding prizes, two points were allowed for each pound of cleaned grain produced on the hand-selected seed plots of 1901, and three points for each pound in 1902.

Following are the names of the successful competitors in the main competition:

FALL WHEAT CLASS.

| | |
|--------------------------------|----------|
| C. E. Gies, Heidelberg | \$100.00 |
| W. J. Armstrong, Constance | 75.00 |
| Bertie Andrews & Co., Sheriden | 50.00 |
| Adam Stevenson, Avonbank | 25.00 |
| Alfred Mountain, Avonbank | 15.00 |
| Ernest Cochrane, Ayr | 10.00 |
| Claud Blake, Lyons | 5.00 |
| Willie Murray, Avening | 5.00 |
| Bessie Brimicombe, Goderich | 5.00 |

ONTARIO WHEAT.

| | |
|---------------------------------|----------|
| Pearl Hendricks, Headford | \$100.00 |
| Char. St. George & Co., Tramore | 75.00 |
| Edith Fleming, Ivanhoe | 50.00 |
| John Dellandrea, Golden Valley | 25.00 |
| R. G. Brown, Chard | 15.00 |
| D. A. McLennan, Laggan | 10.00 |
| Duncan McBeath, North Bay | 5.00 |
| Robert McKay, Maxville | 5.00 |
| Robt. H. Patterson, Northcote | 5.00 |
| Henry Wraight, Powassan | 5.00 |

NEW BRUNSWICK WHEAT.

| | |
|-----------------------------------|----------|
| Ethel M. Shaw, Tobique River | \$100.00 |
| Jennie Mullin, Petitcodiac | 75.00 |
| Bertha Proudfoot, Mt. Pisgah | 50.00 |
| Clarence Billing, Gen. Hanesville | 25.00 |
| Lillian & Alice Fisher, Chatham | 15.00 |
| Credson Le Baron, Burden | 10.00 |
| J. B. Cormier, Elm Tree | 5.00 |
| John B. Nichol, Bathurst Village | 5.00 |
| Earl N. Dunphy, Morans | 5.00 |
| Elise Rasmussen, Foley Brook | 5.00 |

PRINCE EDWARD ISLAND WHEAT.

| | |
|-------------------------------------|----------|
| Gordon McMillan, New Haven | \$100.00 |
| John McGrath, Woodville | 75.00 |
| Irene S. Wigginton, Bridgetown | 50.00 |
| Eugenie Arsenault, Urbainville | 25.00 |
| Eugar Gillespie, Long River | 15.00 |
| S. H. Gordon, Lot 6 | 10.00 |
| Flora Livingston, Hopefield | 5.00 |
| Clara B. McLean, Point Prim | 5.00 |
| Willie Jenkins, Vernon River Bridge | 5.00 |
| S. J. Waugh, North Bedeque | 5.00 |

NORTHWEST TERRITORIES WHEAT.

| | |
|----------------------------------|----------|
| Violet E. McKell, Regina | \$100.00 |
| S. Kirkham, Saltcoats | 75.00 |
| Talbot E. Steuck, Abernethy | 50.00 |
| Peter Keith, Fitzmaurice | 25.00 |
| George Sim, Belle Prairie | 15.00 |
| Melrose Prevost, Flett's Springs | 10.00 |
| Marie L. Ripaud, Duck Lake | 5.00 |
| Thos. Jessop, Fleming | 5.00 |
| Josefa Neumier, Langenberg | 5.00 |
| Martin Ham, Hague | 5.00 |

BRITISH COLUMBIA WHEAT.

| | |
|----------------------------------|----------|
| Gordon Frederick, Ladner | \$100.00 |
| D. & D. Graham, Armstrong | 75.00 |
| Wm. A. Middleton, Vernon | 50.00 |
| Gilbert Mohr, Enderby | 25.00 |
| Percival French, Vernon | 15.00 |
| Harry B. Biggar, Langley Prairie | 10.00 |
| V. W. Menzies, Pender Island | 5.00 |
| Ella J. McLennan, Beaver Point | 5.00 |
| Wm. Peterson, Gabriola | 5.00 |

ONTARIO OATS.

| | |
|--------------------------------|----------|
| John Price, Marsville | \$100.00 |
| Harvey Lennox, Magnetawan | 75.00 |
| W. J. Armstrong, Constance | 50.00 |
| Gertrude Ladd, Caintown | 25.00 |
| Wilbert Prouse, Goderich | 15.00 |
| S. H. Webber, Lakelet | 10.00 |
| W. L. Stephen, Aurora, box 231 | 5.00 |
| Alfred Mountain, Avonbank | 5.00 |
| Bertie Andrews & Co., Sheridan | 5.00 |
| Maggie Marshall, Doe Lake | 5.00 |

NEW BRUNSWICK OATS.

| | |
|---------------------------------------|----------|
| Ethel M. Shaw, Tobique River | \$100.00 |
| Lorne Colpitts, Petitcodiac | 75.00 |
| Shelbourne Ferguson, Lower Queensbury | 50.00 |
| J. Kenneth King, Smith Creek | 25.00 |
| Harold Sorenson, Foley Brook | 15.00 |
| Mabel Cripps, Jeffrey's Office | 10.00 |
| Allen P. Nichol, Bathurst Village | 5.00 |
| Carl Rasmussen, Foley Brook | 5.00 |
| H. H. Hastings, Murray Road | 5.00 |
| Camille Fournier, Gloucester | 5.00 |

PRINCE EDWARD ISLAND OATS.

| | |
|-----------------------------------|----------|
| Hedley McKay, Park Corner | \$100.00 |
| Cleveland Baker, Margate | 75.00 |
| Jas. Marchbank, New Annan | 50.00 |
| Lizzie Kennedy, Southport, Lot 48 | 25.00 |
| Willie A. Jenkins, Vernon River | 15.00 |
| Ernest J. Haslam, Springfield | 10.00 |
| Mabel McLean, Lot 10 | 5.00 |
| Willie Campbell, Belmont, Lot 16 | 5.00 |
| Hazel Edwards, North Wiltshire | 5.00 |
| Simon J. McLean, Point Prim | 5.00 |

NORTHWEST TERRITORIES OATS.

| | |
|--------------------------------|----------|
| Samuel Kirkham, Saltcoats | \$100.00 |
| Talbot E. Steuck, Abernethy | 75.00 |
| Melle Provost, Flett's Springs | 50.00 |
| Violet E. McKell, Regina | 25.00 |
| Silas E. Wheeler, Penhold | 15.00 |
| Josefa Neumier, Langenberg | 10.00 |
| Walter Strong, Olds | 5.00 |
| Marie Ripaud, Duck Lake | 5.00 |
| Annie Bourne, Innisfail | 5.00 |
| John Emarson, Logberg | 5.00 |

BRITISH COLUMBIA OATS.

| | |
|----------------------------------|----------|
| Gordon Frederick, Ladner | \$100.00 |
| Morrice Middleton, Vernon | 75.00 |
| Ella J. McLennan, Beaver Point | 50.00 |
| D. & D. Graham, Armstrong | 25.00 |
| Gilbert C. Mohr, Enderby | 15.00 |
| Henry Peterson, Gabriola | 10.00 |
| Harry B. Biggar, Langley Prairie | 5.00 |
| V. W. Menzies, Pender Island | 5.00 |

It would not be correct to assume that the increases in yields of grain per acre obtained by the competitors, averaging 36 per cent. for oats and 39 per cent. for wheat, were due wholly to the special system of hand selection of seed. The increased attention given to cultivating and fertilizing the land for the hand-selected seed plots was an important factor, and such illustration of the effect of better cultivation was one of the benefits of the competition anticipated by Prof. Robertson when making plans for the working out of the scheme four years ago.

Over ninety per cent. of the reports received from competitors stated that a decided improvement was observed in the vigor of the crop and in the size of the heads of grain, on account of the system of continued selection which they followed.

The average increase in the number of grains per 100 heads forwarded for examination by each competitor during the three years, 1900-1902, amounted to 19 per cent. for oats and 18 per cent. for wheat for the Dominion. This is to be accounted for partly by the difference in the seasons and by better cultivation. There is a close relation between the increase in the number of grains per head and the number of bushels per acre of both wheat and oats. Deductions made by Prof. Robertson, after giving careful study to the results of the competition, are that the increases in the number of grains per 100 heads are due in part to increased skill in selecting, in part to favorable season, and last, but not least, to the system of continued selection of plump seed from large heads selected by hand from the most vigorous plants in the seed-grain plot year after year.

SEED GROWERS TO BE ORGANIZED.

With a view to continue and extend the production of improved and pure-bred seed in quantity as a special branch of farming, arrangements and provisions have been made for the forming of associations of seed-growers. The object of these associations will be to advance the interest of seed growers by forming regulations as to methods, publishing information as to standards, and issuing such certificates of registration as will provide for distinguishing between hand-selected pure-bred seed grain and ordinary grain. The workings of provincial and local associations will be directed by an advisory board of the Dominion Association. Provisional directors will be called together to consider rules and regulations to govern local associations. Records will be kept by a person or persons appointed for the purpose. There will be three distinct classes of registration. First, it is proposed to admit as eligible for registration as "pure-bred registered seed," only seed obtained from heads selected by hand from the largest and most vigorous plants on a registered seed plot of at least the third year. The registration certificate of such pure-bred seed will show the number of years of antecedent selections, as, for instance, pure-bred seed of the fourth years' selection, or the tenth years' selection, as the case may be. Second, it is proposed to admit as eligible for registration as "improved registered seed," only grain obtained from a crop produced from a hand-selected seed plot of not less than three years of continued hand selection. Third, it is proposed to admit as eligible for registration as "general crop registered seed," only seed produced direct from "improved registered seed."

It is the intention of the Department of Agriculture to foster the work started in the Macdonald Seed

Grain Competition, and to encourage the production of improved seed by farmers who will make the growing of grain for seed, as distinguished from grain for feed or food purposes, a specialty in their farm operations. There is much need and much profit for a few farmers in every agricultural locality in Canada to take up this work. It is believed that the time is not far distant when the value of improved and registered seed will be recognized as fully as stock-raisers recognize the value of pure-bred live stock.

THE MACDONALD-ROBERTSON ASSOCIATION.

The Macdonald-Robertson Seed Growers' Association is being started with a membership of about 450 farmers, who have already given special attention to the production of improved seed grain, many of whom have boys or girls who have been operating seed plots in connection with the Macdonald Seed Grain Competition. It is the desire of Prof. Robertson that other seed growers who wish to become members should provide seed plots and sow them this spring. It is recommended that a specially prepared piece of land, following in rotation after a leguminous crop, a hoed crop or a summer-fallow, be used for this purpose. The size of the plot should not be less than one-quarter of an acre, and may be one acre. The best obtainable seed, of a variety of good marketable quality, suited to the locality, should be used and sown thin on the seed plot. Thin seeding gives the individual plants an opportunity to stool and develop a maximum of vigor per plant. From such a plot, the heads of the largest and most vigorous plants would be selected by hand in 1903, in sufficient quantity to sow a seed grain plot in 1904. That would become the hand-selected seed plot of the first year. When a similar selection has been made out of the crop of 1904, the plot of 1905 would become the hand-selected seed plot of the second year, and so on.

Further particulars of the Macdonald-Robertson Seed Growers' Association may be had on application to Prof. Robertson, Department of Agriculture, Ottawa, who will also receive applications from farmers for registration as members in the Association.

The Late G. F. Swift.

On March 29th, Gustavus Franklin Swift, founder of one of the greatest meat-packing establishments in the world, died at his home in Chicago. The direct cause of his death was hemorrhage, the result of an operation performed one week before. With his customary foresight, Mr. Swift had anticipated the time when he should be removed from active life, and had arranged his affairs so that his death should cause the least possible shock to his immense business concern. His sons, who have mastered the details of the business and who have been actively connected with it for some time, will carry it on in the future. On January 1st, 1903, the Swift Company employed upward of 23,000 men. The firm has branch houses in Kansas City, Omaha, St. Louis, St. Joseph, St. Paul, and Fort Worth. The wealth of Mr. Swift is estimated at about twenty millions of dollars. Mr. Swift was not only a packer and multi-millionaire, but was one of the most liberal philanthropists of our times. Many of his employees have received certificates of stock from an anonymous source, but which was always supposed to be the senior of the firm. Through his active life, he always gave a loyal support to his church, the Methodist Episcopal, and also assisted, substantially, many other denominations. Mr. Swift was born at Sandwich, Mass., in 1839, and moved to Chicago in 1875. Mrs. Swift and nine children survive him.

Incoming Population.

During the month of March there were reported at Winnipeg, Emerson, Portal and Coutts, the four Western ports of entry, 12,267 settlers, as against 7,248 in March, 1902, which was considered a phenomenal month. Since the beginning of July last 25,396 more people have located in Manitoba and the Territories than in the first nine months of the fiscal year of 1901-2. The following table, issued by the Department, shows the advances made:

| | Fiscal year, 1901-2. | Fiscal year, 1902-3. | Increase. |
|-----------------|----------------------|----------------------|-----------|
| July | 2,821 | 5,761 | 2,940 |
| August | 5,674 | 8,639 | 2,965 |
| September | 2,234 | 5,614 | 3,380 |
| October | 2,191 | 6,511 | 4,320 |
| November | 2,309 | 5,254 | 2,945 |
| December | 1,552 | 2,629 | 1,077 |
| January | 1,166 | 2,811 | 1,645 |
| February | 1,655 | 2,860 | 1,205 |
| March | 7,248 | 12,267 | 4,919 |
| | 26,850 | 52,316 | 25,396 |

The bulk of the tide of immigration is at present running into that portion of the Northwest Territories lying north of the C. P. R. main line and west of the Prince Albert branch.

Cattle for South Africa.

It is reported from Fort Worth, Texas, that Major Maule, acting for the British Government, has purchased from the firm of Gunther & Jones 2,500 head of breeding stock, the first consignment for restocking the farms in South Africa. The cattle will be delivered at Galveston and shipped immediately. Other buyers in the States also have orders for cows and heifers for the same destination. Herebords appear to be most popular at present.

The "All British Colony."

A correspondent of the "Farmer's Advocate," writing from London, Eng., under recent date, says:

I have been greatly interested in reading and hearing about the vast pilgrimage which is leaving these shores for Canada this spring, but I am only going to tell about one party and how it was started. The chief organizer of "The All British Colony" for Canada is the Rev. Isaac M. Barr, who is ably seconded by coadjutors as systematic as himself, chief among whom is the Rev. G. E. Lloyd, who has spent over twenty years of his life in Canada, and who distinguished himself as a member of the Queen's Own in the Northwest Rebellion of 1885.

Mr. Barr is a Canadian who has the backing of wealthy Englishmen, who have placed ample capital at his disposal to finance the project. The colonists making up his party are all people of some means. Mr. Barr's original idea was a colony for South Africa, where his son died of enteric fever in the late war, but a visit to that part of the Empire satisfied him that the veldt was not equal to the Canadian West, with which he was acquainted personally as far back as 1874.

Being in England last year, Rev. Mr. Lloyd wrote a letter to one of the great London papers, deploring the poverty of the people, so largely caused by their being crowded together in these islands, with competition so great and opportunities for progress so small, whereas in Canada there was room and to spare, and within its borders no man with common industry and intelligence need starve. Many other Canadians had, from time to time, pointed out the advantages, offered by the Dominion to intending emigrants of the right stamp, but Mr. Lloyd went farther, and directly offered to reply to any questions or to give information or advice to any who would communicate with him. The result was that hundreds and hundreds of letters were received, not only from people in England desirous of bettering their condition, but from all parts of the world. The correspondence increased and the number of persons ready and willing to go out became so numerous that the idea of forming an all-British colony was conceived, and with that idea the Canadian Government was asked to allot a tract of country to be peopled with purely British subjects. The Government, in view of the magnitude of the movement and the large issues it involved, sent over a commissioner to inquire into it, with the result that now "The All-British Colony" has been granted a large and fertile area in the Saskatchewan Valley.

Mr. Barr personally came to Canada and selected the site last autumn, between Battleford and Edmonton. At present, the nearest railway point is Saskatoon, 150 miles distant. Through the township reserved by the Government for this colony the Canadian Northern Railway is to run. The original allotment of 16 townships has since been spread over 40 townships by the Government, one-quarter of each township being withheld for Canadian or U. S. settlers, so that the "all-Britishers" will have the advantage of association with Canadian methods of agriculture. The grant now covers 350,000 acres, sufficient to support 2,100 families. During Mr. Barr's absence in Canada, Mr. Lloyd had charge of the movement in England. The first small party of these emigrants, as the Canadian papers have already announced, are there now, and 2,000 more, including the Rev. Mr. Barr, the Rev. Mr. Lloyd, his wife and five children, are probably now across the sea on the S. S. Manitoba, bound for St. John, N. B. [Note.—They landed safely at St. John, N. B., on April 11th, 1,964 souls, all told. Four special C. P. R. trains were ready to start at once for the West.] From St. John they go by colonists' trains away west to Saskatoon. From thence they pass on to Battleford, where supplies are secured for them. Their last trek will be on to their own land, their heritage, the "much land" of which they are "to be possessed." What a patriarchal scene presents itself to the imaginative mind, and what a conflict of emotions must surge in the breasts of those whose long journey is ended and their goal reached. According to their hopes and fears, so will they grasp their opportunity. Those with grit and intelligence will have nothing to fear. They will be the men of mark in Canada's future, but even the more timid souls will have no need to regret their choice, though they will assuredly encounter hardships. From the very outset help will be extended to them. Willing hands will help each man to pitch his tent, until a new white-canvassed city will spring up as if by the wand of magic. Canada need have no fear about the class of settlers who have come to settle within her borders. This is a stream of immigration which no true Canadian would desire to stem. It has taken long years to fully awaken our fellow countrymen in the motherland to the greatness of their heritage in the Britain over the seas, and to overcome prejudices which have been unwittingly, perhaps, fostered by pictures and poetry dedicated to her as "Our Lady of the Snows," instead of as the "Queen of Harvests," ready to supply a world with golden grain. We Canadians, for the time being, on this side of the big Atlantic, felt safe in promising our new comrades that a hearty welcome would be extended to them from all sides when they landed upon the shores of the Dominion. We could honestly assure them that they would find awaiting them the glad hand of comradeship, and so we bade them: Godspeed with not only a hope, but a promise. My very heart was stirred within me when I attended a crowded meeting in London, which had gathered to

bid farewell to Mr. Lloyd, who, it was recognized, had, at much personal sacrifice, cast in his lot with those who were about to leave the motherland. As was said, "if Mr. Lloyd is to be the spiritual father, Mrs. Lloyd will be the mother of the whole party," both of them being the right people in the right place—their examples, their advisers, their helpers and assistants in every way possible. With them go their five children, a guarantee that the tie between them will be no light one nor one easily severed. Mr. Lloyd will hold summer services in the tents in the various sections, but it is hoped that assistance will be forthcoming by which he will be enabled to build one church at least before another winter comes. Amongst our "Advocate" readers there may be some who have friends or acquaintances amongst the newcomers, and who might like to give them a message of greeting even if they are not near enough to welcome them personally. To them, we would say that their letters should at first be addressed, "All British Colony, via Battleford, N.-W. T.," but when the 4,000 who are going to come out next March and the 10,000 prophesied as the probable total of the colony before five years have passed, there will be local post offices, local stores, more churches than one, and convenient railway communication, which will bring the newer colonists in closer and more immediate touch with those of earlier date. Meanwhile, it will not take many months before the valley of the Saskatchewan will be recognized as the home of a happy and contented people who have simply moved from one part of their native land into another—into one of its "larger rooms." Even as I bid farewell to these new settlers going out to Canada, I am about to reach out my hands and bid welcome to some cousins coming from another of Britain's colonies, far-away Australia. When they join me and another party of Canadians in London, I may have something of our joint experiences, and possibly adventures, to relate in my next. "MOLLIE."

Warton Beet Sugar Factory.

Statements have been made in some of the daily papers that the Warton Beet Sugar Factory was being wound up, the cause of failure being attributed to want of a sufficiently high tariff on sugar. We wrote the company for the facts, and we are pleased to give herewith their reply, which shows that the enterprise has not gone under, but is still doing business at the old stand with good prospects ahead:—

"We are aware that there have been many bad reports circulated through the papers, and so forth, in regard to our company, but we are still going on and doing business, and we hope to in the future, and as far as we are concerned, we are in better shape to-day than we ever were, and we propose going on with the beet sugar industry, and going at it good and strong. Our farmers here have been satisfied with their experience of last year, and are taking hold this year and signing acreages very freely. We do not anticipate having any difficulty in getting labor, and our prospects are very bright for getting sufficient beets to insure a long campaign next fall. Thanking you for your enquiry, we beg to remain,

Yours very truly,

THE WARTON BEET SUGAR MFG. CO.,
Limited.

The Horse Show.

Devotees of fashion and admirers of equine excellence will meet on common ground in the Armories, Toronto, on April 29th and 30th and May 1st and 2nd. The Ninth Annual Canadian Horse Show and Fifth Military Tournament will be held on those dates, when there will be seen on exhibition the highest attainment in horse breeding in the several classes shown. Not many heavy horses will be out, but the light classes will be larger than ever before. Horses are trumps at the present time, and the outlook is roseate. Visitors to the show can secure return tickets at the regular single first-class rate. Entries and all other communications should be addressed to Mr. Henry Wade, Parliament Buildings, Toronto.

Manitoba's Agricultural College.

Acting upon the report of a special Agricultural College Commission appointed in 1902, the Government of Manitoba have passed a bill authorizing the erection and equipping of a modern agricultural college. The first cost of the college, including land, buildings, etc., is to be in the neighborhood of eighty thousand dollars. Short courses in dairying, stock judging, grain judging, etc., will be given in addition to a practical two-year course and a four-year course leading to the degree of Bachelor of the Science of Agriculture (B. S. A.). Manitoba at present has a pressing need of the short courses, and it is more than probable that this phase of her educational work will receive close attention from the very inauguration of the new college.

Horses for the West.

A correspondent at Winnipeg, Man., writes us that the demand for good farm horses is very strong there at good prices, owing to the vast numbers of new settlers coming in and taking up land, many of them without horses. He says: "I met a London, Ont., man two days ago who brought up several teams for his friends, and he told me he could have cleared \$100 over all expenses on each of them. The men who understand the business and have been bringing horses in from the east have been making large money."

The Edmonton Show.

The Edmonton Industrial Exhibition is destined to become one of the great annual events of the future and will exert a powerful influence upon the development of this portion of the West. The association has a capital stock of \$20,000, fully subscribed, and so prosperous has the show been that the shares have doubled in value in three years. Forty-three acres, within the town limits, beautifully situated on the Saskatchewan River, comprise the site, which is provided with waterworks and electric light. Both exhibitions held were grand successes. The first year \$7,000 were spent on improvements, and \$1,000 the second, and \$2,000 more will be expended this season. The dates of the show will be June 29th and 30th and July 1st and 2nd, and the prize list is \$7,500. A fine programme will be provided. This show well deserves the patronage of "Farmer's Advocate" readers, and its excellence as an exhibition and the fame and wonderful future of the Edmonton country should attract live-stock and other exhibitors, not only from Manitoba, but from Ontario and other portions of Eastern Canada. Edmonton is bound to set a swift pace for the Territorial agricultural exhibitions of 1903.

Manitoba Seeding.

Seeding was quite general in many parts of Manitoba during the first week in April. The land is reported as working well, and the prospects for an early seeding were quite bright.

MARKETS.

Toronto Markets.

All on offer sold at advanced prices, in some cases from 10c. to 15c. higher than recent quotations. Friday, April 10th, being a holiday, Thursday's market was particularly brisk, and all on offer sold. Export cattle higher; butchers' cattle higher; sheep higher; lambs higher; hogs lower. Reference to our comparative prices will show a marked falling off in the prices of export cattle from last year. This is due to many causes. An increasing supply and the scarcity of space on ocean vessels, with increased transportation charges, have seriously militated against our cattle. The recent influx of Argentine cattle at Liverpool has cut into the profits of export shippers. What the opening of navigation will bring remains to be seen.

Export Cattle.—In request, \$4.50 to \$4.85; common light, \$4.25 to \$4.50. Mr. Thos. Hood, Millikin, Ont., sold nine exporters, 1,200 lbs. average, at \$4.60. Mr. James Hortop and Mr. Wm. Linton, of Claremont, sold ten of the best steers on the market to Messrs. Dunn Bros., 1,350 lbs. average, at \$4.85.

Butchers' Cattle.—Choice picked loads of butchers' cattle, equal in quality to export, weighing 1,150 lbs. to 1,200 lbs. each, are worth from \$4.25 to \$4.50, good demand; medium, \$3.90 to \$4.25.

Bulls.—Choice heavy export bulls, \$3.75 to \$4.00; light, \$3.56. Messrs. Burch, of Toronto Junction, are now buying a better class of cattle for export pickled beef, taking all light bulls, those not suitable for export.

Feeders.—Short-keep feeders, 1,100 lbs. to 1,150 lbs., \$4.00 to \$4.35; steers of good quality, 900 lbs. to 1,000 lbs. average, \$3.50 to \$3.80. Good enquiry for best short-keep feeders. Distilleries will run for a few weeks longer than expected.

Stockers.—Good demand for a large number of stockers. Messrs. Maybee were on the market for 1,000 head to-day. One and two year old steers in good request, average 400 to 700 lbs. each, at \$3.50 to \$3.75; off-colors of poor quality, same weights, \$2.75 to \$3.00.

Sheep.—The run of sheep was only sufficient for the demand. Prices were firm at from \$4.25 to \$4.75 per cwt. for ewes, and for bucks from \$3.50 to \$4.00.

Lambs.—Wether yearling lambs, of which more are coming than usual, sold at from \$6.00 to \$6.50. Grain-fed buck lambs sold at from \$5.50 to \$6.00; barnyard yearling lambs, \$4.00 to \$5.00. A few choice spring lambs sold for \$6.00 per head, general run from \$2.00 to \$5.00 per head.

Calves.—Market fairly active and the run of calves large. Quotations about steady, and prospects are for lower prices in consequence of the poor quality on offer. Prices are from \$2.00 to \$8.00 per head, or from \$4.00 to \$5.50 per cwt.

Milch Cows.—Choice milch cows are in good request by local dairymen at from \$35.00 to \$65.00 per head. The price of milk in the city being raised, has created a greater demand than ever for choice dairy cows.

Hogs.—This market was in an excellent condition to maintain prices for 5,000 to 8,000 hogs per week, but in consequence of some trouble in the western packing houses this center became overburdened, and the price fell off a quarter. This did not stop the rush, and a further reduction was made. In consequence, many drovers were caught in the slump, one drover losing \$200.00 on his consignment, having paid \$6.50 in the country; arriving here, found to his astonishment the price only \$6.12½ per cwt. for choice 160-pound hogs; the light and thick fat at \$6.00; sows, \$5.00. They were culled still closer at one of the city packing houses, which again depressed the market. Prospects are not encouraging under these conditions, and the market will fluctuate according to supplies, as it will take a few weeks to regain its former position.

| | Prices to-day, Apr. 10th, 1903. | Two weeks ago, Mar. 26. | Same date last year. |
|-----------------------|------------------------------------|----------------------------------|-------------------------------|
| Export cattle..... | \$ 4.85 | \$ 4.60 | \$ 6.30 |
| Butchers' cattle..... | 4.50 | 4.35 | 5.50 |
| Export bulls..... | 4.00 | 3.75 | 4.70 |
| Feeders..... | 4.35 | 4.25 | 4.60 |
| Stockers..... | 3.75 | 3.75 | 3.60 |
| Sheep (per cwt.)..... | 4.75 | 4.50 | 3.75 |
| Lambs (per cwt.)..... | 6.50 | 6.25 | 4.75 |
| Hogs..... | 6.12½ | 6.25 | 6.15 |
| Milch cows..... | 55.00 | 55.00 | 55.00 |

PRODUCE MARKET.

Wheat.—Red and white, 60c.; goose, 65c. to 66c.; Manitoba hard, No. 1, 87c.; No. 1 Northern, 85c. per bushel. In Toronto, white wheat sells at 71c. to 72½c.; 200 bushels of red sold at 71c. to 71½c.

Barley.—For export, No. 1 sells at 46c. per bushel, and No. 3 at 43c. for export. One hundred bushels sold at from 44c. to 45c. in Toronto.

Oats are quoted at 29c. and 31c., east, for No. 1; 33c. at Toronto, on track; on the street market, 36c. to 37c. per bushel.

Corn.—Canadian corn sells on track at 50c. per bushel.

Peas, for milling purposes, 66c. to 70c. per bushel. Rye, 50c. to 51c. per bushel in Toronto.

Bran.—City mills quote bran at \$16.00 to \$17.00 per ton, and shorts at \$18.00 per ton, f. o. b. Toronto. Manitoba offerings on Board of Trade quote \$20 per ton, f. o. b. Toronto.

Hay.—Thirty loads on offer and all sold at from \$12.00 to \$15.00 per ton for timothy, and at from \$9.00 to \$10.00 per ton for clover or mixed hay.

Straw.—Three loads of straw sold at from \$8.00 to \$9.00 per ton.

Dressed Meats.—Beef fore quarters, per cwt., \$6.00; beef hind quarters, per cwt., \$8.00; mutton, per cwt., \$9.50; mutton, heavy carcass, per cwt., \$8.00; spring lambs, each, \$6.00; yearling lambs, per cwt., \$12.00; veal carcass, per cwt., \$10.00; dressed hogs, light, per cwt., \$8.60; dressed hogs, heavy, per cwt., \$8.00.

Butter.—Best dairy butter in pound rolls in good demand at from 20c. to 23c. per lb. A sample of renovated butter was on exhibition, made from a Quebec consignment. It was not for sale, as the exhibitor said that a law was in force which prohibited it in Canada.

Eggs.—New-laid eggs, warranted, in good supply, at from 12c. to 14c. per dozen.

Cheese.—There is a good business considering the price at which cheese is now selling. Market steady and stocks held are now released at 13½c. per lb.

Can anyone explain what connection pork and cheese have together in price, as they have been running together for the last six months?

Potatoes.—Prices about steady at \$1.10 per bag, off farmers' wagons, and car lots at \$1.00 per bag on track at Toronto.

Apples.—60c. to \$1.25 per barrel. Choice dessert apples sell on sight at any price; Northern Spy, Blenheim, Greenings and Glori Mundi, \$1.50 per barrel. Kings are quoted at from \$1.00 to \$2.00 per barrel.

Poultry is extremely scarce, prices high. Turkeys, from 12c. to 18c. per lb.; chickens scarce, at from \$1.25 per pair; ducks are particularly scarce and quoted at from \$1.00 to \$1.50 per pair. A new name on the market is "squabs."

Chicago Markets.

Chicago, April 14.—Cattle—Receipts, 4,000; steady; good to prime steers, \$5.20 to \$5.70; poor to medium, \$4.50 to \$5.00; stockers and feeders, \$3. to \$4.75; cows, \$1.75 to \$4.60; heifers, \$2.50 to \$5; canners, \$1.55 to \$2.25; bulls, \$2.50 to \$4.40; calves, \$3 to \$6.75; Texas-fed steers, \$4.60 to \$5.

British Cattle Markets.

London, April 14.—Live cattle steady at 12c. to 13c. per lb. for American steers, dressed weight; Canadian steers, 11½c. to 12½c. per lb.; refrigerator beef, 9½c. to 10c. per lb.; sheep, 14c. to 15c.

Montreal Markets.

Montreal, April 13.—Offerings, 175 cattle, 200 calves, 40 sheep, 12 spring lambs and 25 store hogs. Prime beefs, 4½c. to 5c.; medium, 3½c. to 4½c., and common, 2½c. to 3½c. Calves, \$1 to \$7 each. Sheep, 3½c. to 4c., and yearlings, 4½c. to 5½c. per lb. Store hogs, \$5 to \$12 each; fat hogs, 6½c. per lb., weighed off the cars.

Late Export Cattle Report.

Toronto, April 14.—Good demand and everything sold at better prices, \$4.75 to \$5, a few choice lots going at 5½c.

The cattle embargo at Boston and Portland is driving trade to Canadian lines. The Elder-Dempster Co. last year carried 4,900 cattle in May and June, but the C. P. R., which bought that line, has already booked 24,000 head, or five times that number. Last year the rate was 35 shillings, this year it opened at 45 and went to 50. St. Lawrence facilities will be strained to handle the trade.



MENTOR (19132).

BOUM-BOUM (15368).

MAX (9618).

BELGIAN STALLIONS IMPORTED BY THE BARON DE CHAMPLouis, DANVILLE QUEBEC.



"Be cheerful. Give this lonesome world a smile,
We stay, at longest, but a little while;
Hasten we must or we shall lose the chance
To give the gentle word, the kindly glance.
Be sweet and tender—that is doing good;
'Tis doing what no other good deed could."

Mollie as a Reporter.

THE "ALL BRITISH" COLONY FOR THE NORTHWEST.

It is certainly a very pleasant thing to be a Canadian in England just now, when the word Canada is upon so many lips; when meetings, public and semi-public, in the drawing-rooms of people of social and intellectual standing are arranged with a view to promote emigration to its hospitable shores, and when the daily papers give facts and figures which cannot fail to convince the most incredulous that Canada can offer advantages far and away beyond those of any other colony to the vast growing numbers whose eyes are turned to some corner of the Britain-over-the-seas as a future home for themselves and families. At one such gathering, Mrs. Lloyd and Miss Woolmer, the Secretary of the Women's Branch of the Colonial and Continental Society, gave in detail the very interesting account of the newly projected, and now almost completed, scheme for colonizing the large block of land in the Saskatchewan Valley, which they graphically described as a "district as large as two Surreys and a Middlesex." "In March," they said, "a pilgrimage of 3,000 people, chiefly men, but also women with children, down to babies in arms, each with enough for fare and registration fee, and a month's provision, as a minimum, will migrate to Canada; after four days on the Canadian Pacific Railway they will reach Saskatoon, and in waggons or afoot go up the trail to the land. It will need comparatively little clearing, and is in a most beautiful region, not nearly so cold as Manitoba, because it is more sheltered by the Rockies. The Government have promised a railway at once, and will employ those upon it who have not come out with capital.

"The expedition has been most carefully planned, and for adventurous spirits the prospect of the new country is enticing. When the settlement is made, in addition to the women already gone out, more will be needed for teachers, nurses, household duties, and the young colonists will need wives for the making of the new homes. The expedition will be watched with interest, as it is most desirable to induce good emigrants to go to Canada; but, apart from this, the meeting was fascinated by the spirit of enterprise displayed by Mrs. Lloyd; and her description of those going and those of whom are risking all to save their families from the consequences of a financial disaster in England, or, as the sons of the clergy, who have to make their own way in the world."

One of us having occasion to wait in the outer office of the High Commissioner for Canada, watched with interest the steady flow of enquirers who came and went. There was not one who did not seem just the kind of man for Canada, showing that the right kind of information so widely and judiciously circulated has borne good fruit in weeding out the undesirables. The Steamship Companies have to increase their number of workers to keep up with the increased provision needed for the multitudes seeking passages to Canada, and every philanthropic organization in England and in Canada, formed to promote the interests of women, lends a hand, directly and indirectly, in clearing the tracks for the onward march of the mothers, sisters and daughters who desire to go with them. Whilst, perhaps, some of us may feel a little bit distrustful as to what may be the result of the large proportion of new settlers coming to Canada from the United States, dreading lest they may bring too big a lump of democratic leaven into our loyal Dominion to be quite wholesome for it, yet "it is self-evident that what has been called the American invasion from the Western States has been a convincing argument in favor of the British movement," and a direct testimony to the superiority of the lands outside their own borders. The keynote of some of the addresses on the subject of female emigration has been that "what woman has done, women may do," and, therefore, that no woman going to Canada to-day, if she has

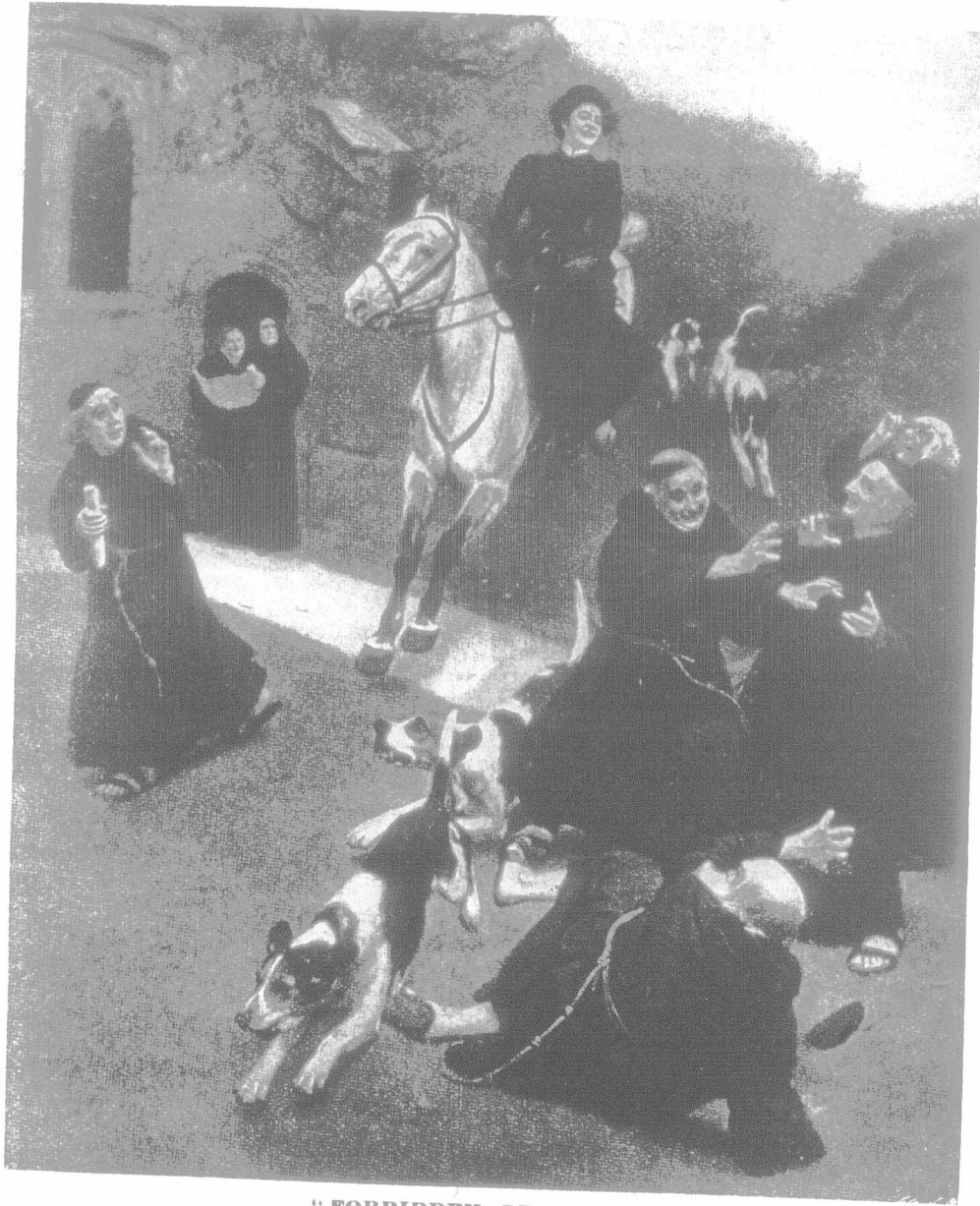
in their breasts now as in the days of Laura Secord and those other patriotic women of whom Lady Aberdeen had spoken, instancing the rapid formation, under the auspices of the National Council of Women, of branches of the Red Cross Society all over the Dominion, and that "not a mother sought to keep back her son, not a sister her brother, nor a Canadian girl her lover, when the late call to arms was sounded."

Her final words were these: "Since I have been 'home' (we colonists always call Great Britain 'home'), I note how difficult it is for the untravelled British eye to get into proper focus when taking an imaginary survey of Canada. It cannot take in its immensity, whilst we on the other hand, ponder over the problem of the disproportion of people (in England) to space, which seems to be at the bottom of so much of the destitution in the motherland. Surely the welcome we hold out should be its best remedy. We have much land to be possessed. Canada is fast earning its undisputed right to the name of 'The World's Granary.' Miles upon miles of golden corn will soon await the sickle, but the laborers are proportionately few. Meanwhile, stalwart men march through the streets of London, crying aloud, 'Give us work, give us bread,' and Canada has both and to spare. To them, and to their wives, who are, many of them, working for such a pitiful wage, we would say, 'Come over and help us! Come thou with us, and we will do thee good.'" MOLLIE.

"Forbidden Ground."

Was there ever a picture which less needed an explanation? How plainly by face and attitude do the monks, invaded by that mischievous Diana, with her yelping hounds, tell their own story? In hers there is infinite enjoyment of the contortions, not wholly planned, or the hounds would not have led the way, and one can almost hear her laughing, "Good morning, Fathers, you'll have to grant me absolution, for I couldn't help myself! Ha! ha!" Each face is a study, the gravest being those more safely removed from the iron-shod hoofs of the steed she rides. To the others, when the momentary scare is over, the little episode in the dreariness of their daily lives will not be without its pleasant side.

H. A. B.



"FORBIDDEN GROUND."

good common sense and a determination not to be daunted by little difficulties, need fear to cast in her lot with us. I think I told you in my last letter of the words of high praise to Canadian women which were elicited by Lady Aberdeen's personal tribute to them at the meeting at the Colonial Section of the Society of Arts, on the 10th February last. Her story of the capable Canadian girl who, as by a fairy wand, could turn herself into cook, parlor maid, and then into a daintily-dressed hostess in the evening, has been re-told in many of the London papers since, but I promised to quote a few words from the short address given by the Canadian lady, a writer in the "Advocate," who was honored by an invitation to take part in the discussion. After expressing her gratification that Lady Aberdeen had gone back to the beginning of things, giving instances of the heroism and self-sacrifice of the women of Canada's pioneer days, she said: "By these records you will the more easily recognize from whence comes the firm, unbreakable backbone which seems to be the heritage of their descendants to-day, making them the resourceful, self-reliant wives, mothers and daughters, who are to be found from the shores of the Atlantic to the Pacific." Telling of the undying loyalty of the Canadian women, the speaker declared that it burned as brightly with-

Wheat Bread More Nearly the Perfect Ration.

Mr. George G. Nasmith, B.A., chemist, of the Provincial Board of Health, recently read a paper before the Natural Science Association of Toronto University, on "Bread," from which the following extracts are made:

The cereals and the products derived from them form the basis of all human nutrition; in all climates and in every class of society bread of some kind is the one food in general use, and forms the nucleus around which almost every diet is constructed.

The various cereals are of much the same composition, but wheat flour makes a much better quality of bread than flour from any other cereal, because it possesses a substance, gluten, upon which its bread-making qualities depend, and one obtainable from no other cereal. Oats, maize or rye, for example, do not possess gluten, and, therefore, do not make good bread.

If wheat flour is made into dough, and this kneaded in a stream of water, the starch granules are gradually washed away and a grey rubbery mass is left, the gum obtained by chewing wheat. It is this elastic substance that entangles the gas bubbles given off the yeast organism in bread-making, so that the whole mass becomes light and spongy.

White flour is obtained by grinding the endosperm of the wheat grain, that is, all of the wheat grain left when the branny coats and germ are milled out and thrown away. Whole-wheat flour is white flour, plus the inner branny coats, especially the aleuron layer. Graham flour consists of the entire grain ground up.

BROWN BREADS.

Brown breads are inferior to white bread, because they contain much less available nutriment, weight for weight, than it does. Text-books and medical men religiously reiterate the statement, disproved years ago, that the best part of the wheat grain is milled out and thrown away in the bran. There is absolutely no foundation for the wild claims made by the whole-wheat crank; in fact, all the evidence is in favor of the white article.

It is true that whole-wheat contains more protein than white flour, but then, "we live not by what we eat, but by what we digest." We can eat hay, but not digest it. The fact is, that the protein in the bran and so-called aleuron layer is enclosed within cellulose walls; human beings cannot digest cellulose, and, therefore, the enclosed food is not available to us. I have digested thin sections of wheat grain with artificial gastric juice for two days, and have invariably found the cell contents to be unaltered when examined under

THE QUIET HOUR.

The Easter Message.

"O teach me, Lord, that I may teach
The precious things Thou dost impart,
And wing my words, that they may reach
The hidden depths of many a heart."

The Easter message of life from the dead is proclaimed in the glorious springtime by every blade of grass, by every leaf and flower. No wonder people try to wear something new on Easter Day, for we all like to be to some extent "in the fashion." The old earth seems to renew its youth, coming out in a fresh robe of green, and very soon the orchards will burst into a display of blossom, putting the Easter hats into the shade. The earth faithfully declares her Easter message:

"True to her trust, tree, herb, or reed,
She renders for each scattered seed,
And to her Lord, with dutiful heed,
Gives large increase;
Thus year by year she works unfeared,
And will not cease."

Are we as faithful? God never reveals Himself to any soul for the sake of that soul alone. All nature is eagerly trying to pass on the life committed to it. The first message at the empty tomb was to the women: "Go quickly and tell His disciples that He is risen." Because they departed "quickly," and did "run" to deliver their wonderful message, they were rewarded quickly, for "Jesus met them." They had not seen their risen Lord before, but because they were eagerly spreading the good tidings which they had only heard, a much fuller revelation was granted them, and this also they were to pass on to others: "Jesus said unto them, Be not afraid; go tell My brethren—"

"Happy who so Christ's word convey,
That He may meet them on their way!"

Perhaps you are like those women. You have been often told the wonderful truth that He who proved His love by willingly enduring insult, shame and death to save us all, is living and close at hand. You believe this, because you have faith in the people who have taught you, but it may be that you have not yet heard the Master's voice calling you by name, and have not seen Him plainly with the eye of faith. Sow the seed you have, and it will surely be increased. Don't be satisfied with a little money given for missions, do mission work yourself. If you cannot tell out the Easter message to anyone else, there are always children to be instructed. Teachers are wanted in our Sunday schools, there is plenty of soil there, but every teacher should go directly to Christ for his seed. The first recorded Easter command given to St. Peter was: "Feed My lambs." The children are His, and He will call us to account if we neglect them.

Even Mary, who loved her Lord so dearly that "she was last at His Cross, and first at His Grave: staid longest there, and soonest here: could not rest till she were up to seek Him;" even she was not permitted to stay, clinging to her Master with adoring worship, but was sent like the other women with a message to His "brethren."

The two disciples who, on that same great Easter Day, listened with burning hearts to the mysterious Stranger who walked with them to Emmaus, lost no time in spreading the good news that the Lord was indeed alive. "They rose up the same hour," although it was evening, and hurrying back the threescore furlongs to Jerusalem, "told what things were done in the way, and how He was known of them in breaking of bread." Do we seek to know Him more and more fully in the "Breaking of the Bread?"

The Apostles constantly proclaimed the "Resurrection." When Festus tried to find out the reason for St. Paul's imprisonment, the only crime of which he was accused was that of affirming that Jesus was alive. As Festus said, in explaining the case to Agrippa, there can be no doubt about the death of Jesus—it is a fact of history, which no one can deny, that He was crucified—yet nothing could shake the Apostle's witness to that other glorious fact that He is most surely alive.

Is not that the question to-day? The Man who founded the great Christian Church, which is gradually conquering the world, died nearly two thousand years ago. Some may agree with Festus that that settles the question: for if He died how can He be alive? But it is our business, if we are real Christians, to tell the world that He "liveth."

Perhaps you may ask why I, who have such a good opportunity, do not talk more about the Resurrection. But surely you can bear me witness that I have scarcely written a "Quiet Hour" without declaring, in one way or another, that Jesus is indeed alive, and by our very side al-

ways: "for we cannot but speak the things which we have seen and heard."

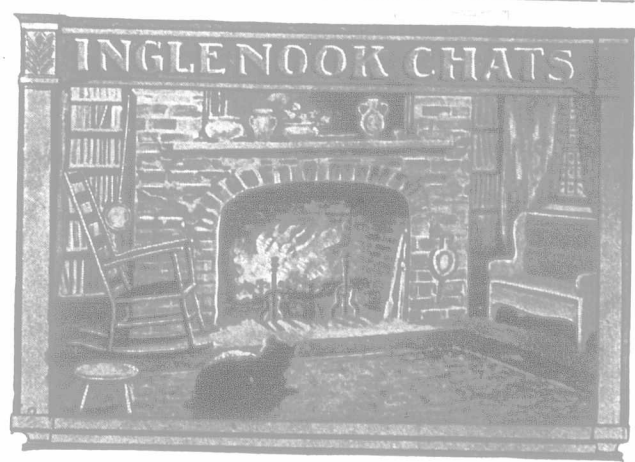
Of one thing, though, we must be careful, and that is not to profess a belief we do not feel. Humbug, cant and hypocrisy do more harm to the cause of Christ than any amount of open opposition. When He trusts us with a message, let us deliver it faithfully, neither adding to it nor subtracting from it, and then go to Him for another and a clearer revelation—which He will certainly give as soon as we are ready and able to receive it.

"I came and communed with that mighty King,
And told Him all my heart."

"Now will I turn to my own land, and tell
What I myself have seen and heard of Thee,
And give Thine own sweet message,
'Come and see!'

And yet in heart and mind for ever dwell
With Thee, my King of Peace, in loyal rest,
Within the fair pavilion of Thy Presence blest."

HOPE.



My dear Guests,—

"Here I come creeping, creeping everywhere," is the song of the grass at this season of nature's awakening. How it steals softly in, filling all waste spaces, and making beautiful every quiet corner! Do we think often enough or feel the gratitude we should to the Giver of all good gifts, for this humble and unobtrusive member of His vegetable kingdom?

By many of us it is passed unnoticed, or we feel and enjoy its presence without realizing whence the pleasure comes. The eye is soothed by its soft hue, and the heart encouraged, for green is the color which symbolizes hope; yet we seldom pause to consider our benefactor. Not so all men; the great word-painter, Ruskin, tells us: "Gather a single blade of grass and examine for a moment, quietly, its narrow, sword-shaped strip of fluted green. Think of it well, and judge whether, of all the gorgeous flowers that beam in summer air, and of all strong and goodly trees, pleasant to the eyes or good for food, there be any by God more highly graced, by man more deeply loved, than that narrow point of feeble green. Consider what we owe to the meadow grass, to the covering of the ground by that glorious enamel, by the companies of those soft and countless and peaceful spears."

We experience a thrill of joy when we read his words, and find that he has voiced our feeling—the mission of those to whom God has given the gift of expression. Then our imagination brings before us the picture of the mountain slopes covered with verdure; the "unshorn fields, boundless and beautiful," the prairies; the level, velvety lawn of park or garden; the grassy mounds in old-fashioned churchyards, that cover the quiet dead; the country lanes and roadsides; and all the waste spots and corners of the busy city, which the "soft and countless spears" have beautified.

What a lesson of life may be learned from this humble but powerful part of the economy of nature; the use and beauty of an obscure life! We are tempted to regret that our lives are spent in a monotonous round of commonplace duties. Among our acquaintances or friends we may find some whose lives seem lacking in the beauty or brightness we should desire for them. But have we not noticed sometimes that those are most missed when removed from us. These lives so humble, simple, but useful, have the beauty of the quiet grass, which makes pleasant the waste spaces and quiet corners of the world.

"Belle."—Your letter came just as this budget was in course of preparation. I am afraid the subject you propose would read rather tardily by the time results could be in. I shall be pleased to receive the photograph. I am glad you keep up your correspondence with "Annie Laurie," 'twill serve sometimes to brighten an occasional, otherwise dull, hour. Come again.

OUR COMPETITIONS

The puzzle contest announced in March 16th issue will not close until May 10th, so there is plenty of time to begin even yet. Try it, everyone. You will find it interesting work thinking over your alphabet.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

the microscope. Similarly investigators have allowed thin sections to pass through the alimentary tract with precisely the same results. It has also been found, from numerous experiments on human beings, that there is not as much food absorbed from whole wheat or Graham-flour bread as from white. For instance, a number of people were fed on bread and milk, and by accurate physiological chemical methods, it was found that on the average 85 per cent. of the protein and 97 per cent. of the carbohydrate of the best white flour is digestible. In whole wheat 80.5 per cent. of the protein and 94 per cent. of the carbohydrate is digested; while in Graham bread only 77.6 per cent. of the protein and 88½ per cent. of the carbohydrate is digested.

Obviously, then, anyone who says that white bread is poor food is simply ignorant of the subject in question; experimental evidence proves that white bread yields eight per cent. more nourishment to the body than Graham bread, which is made from the whole wheat; not only so, but the branny particles, by irritating the intestinal walls, and thus promoting peristalsis, hastens other foods too rapidly through the intestine, so that complete absorption cannot take place, and considerable loss occurs. Of course, in certain affections of the alimentary tract this increased peristalsis is of benefit, and many people take brown bread for this reason. As with every other food, eat what agrees with you; it is literally a fact that "what is one's meat may be another's poison."

A great deal is made of the loss to the system of the calcium, iron and phosphorus salts, which are undoubtedly present in the bran. But no one has as yet proved that we require abnormal quantities of these salts, and since they are present in oatmeal, breakfast foods and, in fact, almost every vegetable and animal food we eat, the so-called loss is immaterial.

The science of nutrition bids fair to become something more than a name; within the past fifteen years a great deal of work along the line of metabolism and food investigation has been done, but we know very little about them yet. Domestic science is a direct result of laborious laboratory investigations; let us hope that it has come to stay, and that dyspepsia and such kindred ailments, directly due to lack of knowledge of the principles of cooking and nutrition, will, fifty years from hence, be things unknown.

Little Bateese.

You bad leetle boy not moche you care
How busy you're kipin' your poor gran'pere,
Tryin' to stop you ev'ry day
Chasin' de hen aroun' de hay—
W'y don't you geev' dem a chance to lay?
Leetle Bateese!

Off on de fiel' you foller de plow,
Den w'en you're tire you scare de cow,
Sickin' de dog till dey jump de wall,
So de milk ain't good for not'ing at all—
An' you're only five an' a half dis fall,
Leetle Bateese!

Too sleepy for sayin' de prayer to-night?
Never min'; I s'pose it'll be all right,
Say dem to-morrow—ah! dere he go!
Fas' asleep in a minute or so—
An' he'll stay lak dat till de rooster crow,
Leetle Bateese!

Den wake us up right away touts suite,
Lookin' for somet'ing more to eat,
Makin' me t'ink of dem long leg crane,
Soon as dey swaller, dey start again;
I wonder your stomach don't get no pain,
Leetle Bateese!

But see heem now lyin' dere in bed,
Look at de arm underneath' hees head;
If he grow lak dot till he's twenty year
I bet he'll be stronger dan Louis Cyr,
An' beat all de voyageurs leevin' here,
Leetle Bateese!

Jus' feel de muscle along hees back,
Won't geev' heem moche bodder for carry pack
On de long portage, any size canoe;
Dere's not many t'ing dot boy won't do,
For he's got double-joint on hees body, too,
Leetle Bateese!

But, leetle Bateese! please don't forget
We rader you're stayin' de small boy yet,
So chase de chicken an' mak' de scare,
An' do what you lak wit' your old gran'pere,
For w'en you're beeg feller he won't be dere—
Leetle Bateese!

—W. H. Drummond

Who Loves the Trees Best.

Who loves the trees best?
 "I," said the Spring.
 "Their leaves so beautiful
 To them I bring."

Who loves the trees best?
 "I," Summer said.
 "I give them blossoms,
 White, yellow, red."

Who loves the trees best?
 "I," said the Fall.
 "I give luscious fruits,
 Bright tints to all."

Who loves the trees best?
 "I love them best,"
 Harsh Winter answered,
 "I give them rest."

—Alice May Douglas, in *The Independent*.

The Women on the Farm.

Womankind may be divided into two classes: those who live in towns or cities, and those who live in the country. Each class has its own peculiar advantages, though at first sight it may seem as though the former possess the greater number. A closer thought, however, will show that the woman on the farm can lead an equally happy life, if she will make use of the advantages within her reach. But therein lies the trouble. The average farmer's wife does not accept the chances for increasing her happiness. One by one she lets them slip past, intent on her many duties. She certainly has to work very hard, doing very often tasks which are beyond her strength; and doing them, too, in such an uncomplaining way that seldom is her labor appreciated at its real worth. In this way she makes the mistake of thinking that for her, life means simply long periods for work and shorter ones for rest. Day after day brings the same monotonous routine, and gradually life narrows down to a circle of never-ending duties, with little pleasure or recreation. Not a pleasant prospect, and yet a true one in many cases.

But all this can be changed by means of common sense and determination. Life was never intended to be spent by any one wholly in toiling. Happiness can be had for the seeking; and very necessary is it for the farmer's wife to seek earnestly for it. She must remember that work is not the only duty. There are others equally important requiring her attention, and among them comes first the enjoyment of as many pleasures as she can obtain; and they can be found in the country as well as in the town. There are various ways by which the woman on the farm can make her life more joyous. One is by taking good care of her health and saving herself as much as possible. This is her first duty to her husband and children, and in accomplishing it she needs all the help she can get. There is no reason why there should not be in many farmhouses, where circumstances allow of it, modern inventions and labor-saving devices which would materially lighten the housework. The practical farmer prides himself on keeping up with the times in the implements he uses. Then why should not his wife do the same, and thus lengthen her life by years? Let her see to it, then, that attention is persistently called to this matter, until the desired results are secured.

Then, again, it is a good plan to keep in touch with the outside world as much as possible. This can be done, no matter how remote the section, by subscribing for one or two weekly newspapers and a monthly magazine. In these days of cheap printing, the best ones can be had at reasonable rates, and money spent on them is wisely invested. So, too, with books which, when rightly chosen, bring happiness wherever they go. No time for reading, you say? Then just make time by letting something else go now and then.

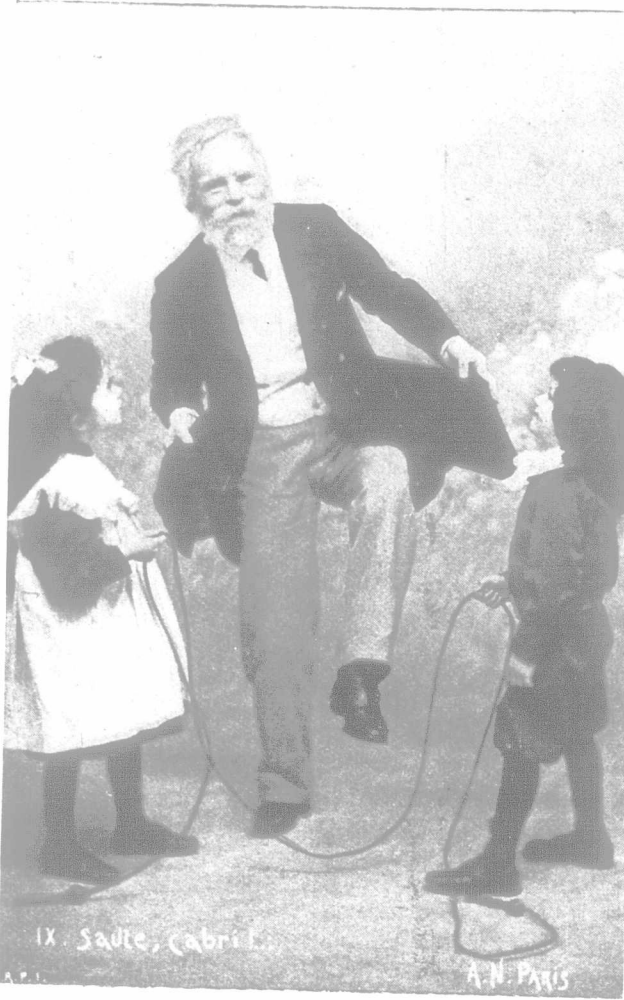
Lastly, there is the virtue of hospitality, which can be practiced on the farm in winter as well as in summer. Why not plan an occasional social gathering, invite a few of the neighboring women over to tea, and have a pleasant time together? Only extra work, perhaps, you think, and what good would it do? Do, ah, much: try the experiment yourself and see. Thus, in these, and in other ways, life in the country can be widened and brightened.

Like everyone else, however, the woman on the farm must early decide for herself what things in life are really worth while. She must choose between the trivial and the important, and aim at beautiful simplicity in everything. Many pressing duties may be near at hand, but, taking them in the best way, she will soon realize that they are not the main ends to keep in view, but are only steps in making a happy, cheerful home. For, after all, it is not so much the place where we live, be it town or country; not so much how large or how small the income may be, as it is the cultivation of a sunny disposition, a hopeful spirit, which seeks and finds joy everywhere. And

in these and in many other blessings the woman on the farm may freely and constantly share, if she will but make an effort to gain and give the best rewards of life—joy and happiness.

Stellarton, N.S.

S. L. HARIVEL.

THE CHILDREN'S CORNER.**Good Comrades.**

"At Easter, my children, I always feel young,"
 Said grandpa one day, as he watched Dick and Nell
 Who were frisking about like kittens at play,
 Or lively young chickens just out of the shell.

"Oh, won't you play marbles?" cried Dick in delight.
 But grandpa declared he'd a "bone in his back,"
 And dared not stoop down as he feared it might break.
 "Old bones are like china and easily crack."

"Shall we teach him to skip? Oh, won't that be fun!"
 Said Nell, as she rushed off to get her new rope.
 And grandpa agreed to his favorite's plan,
 Remarking, "You won't make me jump high, I hope."

He caught up his coat tails and merrily skipped,
 While faster and faster the swift rope went round.
 But at last he grew tired, then stumbled and slipped,
 Falling flat on his back full length on the ground.

He couldn't get up, for Nell's soft little cheek
 Was pressed against his, as she said in his ear,
 "Your skipping was grand! What a darling you are!
 I love you, I love you, my grandfather dear."

Cousin DOROTHY.

A Wonderful Dinner.

It is quite a long time since we had a real old-fashioned story, so to-day I will tell you an old Genoese legend.

A great many years ago there lived a rich Roman, named Pomponius. He was lucky—which every rich man is not—for he had the best cook in all Italy. Perhaps you think that such a good cook might soon become rich too, but she was only a slave, and instead of earning thirty or forty dollars a month, she had to work hard for nothing. You may have heard of a cook who boasted that he could serve up a leather shoe in twenty-seven different ways, each more delicious than the other, but I am sure little Zita was far more clever than he. She was very pretty too, and not in the least conceited about her looks or her cookery. Possibly she may have had a few faults, but they are all forgotten long ago. Every morning this good little cook got up very early, so that she might have plenty of time for her prayers without neglecting her work.

One day Pomponius sent for Zita and told her

that the great Citronius Ostendius was expected, and he threatened the poor young slave girl with a terrible punishment if the banquet failed to please his guest. Zita trembled, but determined to do her best. Of course she had a lot of under-cooks to peel vegetables, clean fish and wash dishes, but she never trusted anyone else to do the cooking.

On the morning of the banquet Zita went very early to market, and sent home plenty of provisions. She had told the under-cooks to get these all ready, and as it was early she slipped into a church to pray. She prayed on and on, forgetting all about the dinner, until the roof seemed to open and thousands of angels in dazzling white robes appeared, floating with wings outspread through a sky of clearest blue. Still she prayed on and on, while the sun rose higher and higher and then sank to rest in a bank of golden clouds. When Zita at last opened her eyes it was almost dark, and then she rushed home, almost frightened out of her wits. What should she do? It was nearly time for the grand banquet to be served, and she had not even begun to cook anything. Hurrying into the court-yard, she found her assistants—the vegetable-cleaners, the plate-scrapers and the bottle-washers—all fast asleep on the benches, with their ladles, knives and dish-cloths tightly clasped in their hands.

"Alas!" cried little Zita, "they are all tired out with waiting so long for me!"

She tried to open the great folding-doors of the kitchen, but they were locked; and through the keyhole came the most delicious odor, as of the best dinner that ever was cooked. Zita was more frightened than ever, for she felt sure that her master had engaged another cook, and that she was locked out of her dear kitchen for ever. She ran round to the front and entered the great dining-hall. The long table was beautifully set, glittering with magnificent gold and silver dishes, bright with flowers, and lighted with thousands of candles.

"Now, Zita, the guests are quite ready for the banquet," said Pomponius; adding, "It smells like the best dinner that ever was cooked."

Zita was dizzy with astonishment, as she heard her master say to his guest: "Little Zita is the best cook in Genoa, and I wouldn't part with her for any number of gold pieces."

Back she went to the court-yard, and suddenly the great doors flew open. The kitchen was filled with a cloud that looked as if the sunset had got in there by mistake. It was a beautiful mixture of pink and blue, touched up with gold. Flying about were crowds of busy little figures in white caps and aprons, working away with golden spoons and knives. They all vanished in a moment, and then the under-cooks woke up suddenly, without even yawning, and began to dish the beautifully cooked dinner as though nothing surprising had happened. Such a dinner as it was! They talk of it still in Genoa, and well they might! Of course Zita tried to explain, and confess her careless neglect, but no one would believe her. Pomponius praised his little cook more than ever; but he did not set her free, for he knew he had a treasure and intended to keep it. She did not get married and live happily ever after; but ever since the day of that wonderful dinner, the patroness of cooks has been little Saint Zita.

Cousin DOROTHY.

Courtesy at Home.

Good breeding, like charity, should begin at home. The days are past when children used to rise the moment their parents entered the room where they were and stand until they received permission to sit. But the mistake is now made usually in the other direction, of allowing to small boys and girls too much license to disturb the peace of the household. I think the best way to train children in courtesy would be to observe towards them a scrupulous politeness. I would go so far as to say that we should make it as much a point to listen to children without interrupting them, and to answer them sincerely and respectfully, as if they were grown up. And, indeed, many of their wise, quaint sayings are far better worth listening to than the stereotyped commonplaces of the morning caller. Of course, to allow uninterrupted chatter would be to surrender the repose of the household, but it is very easy, if children know when to talk and when to be silent, are themselves respected, to teach them in turn scrupulously to respect the convenience of others, and to be silent.

The best brought up family of children I ever knew were educated on the principle of always commending them when it was possible to do so, and letting silence be the reproof of any wrong-doing which was not really serious. I have heard the children of this household, when their mother had failed to say any word of commendation after some social occasion, ask as anxiously as possible, "What was it, mamma? I know something was wrong. Didn't we treat the other children well, or were we too noisy?" In that house reproof was never bestowed unsought—only commendation, of whatever it was possible to commend, was gratuitous.

GOSSIP.

Messrs. Forshaw & Sons, Newark, England, owners of Stroxtan Tom, champion of the London Shire Horse Show, 1902-3, have over 50 stallions hired out for the season in various districts in England. The service fee for their best stallions retained at home is £10 10s., or \$52.

DISPERSION SALE OF JERSEYS.

Farmers and townspeople alike will be interested in the advertisement, in this issue, of the clearing sale of the entire herd of registered Jersey cattle belonging to Mr. J. W. Humpidge, of Lambeth, Ont., six miles from the city of London, to take place on Wednesday, April 29th. The herd consists of 31 head, 27 females and 4 young bulls. Fifteen of the cows and heifers are in milk, many of them fresh and others due to calve this spring. The herd has produced many prizewinning animals at the Toronto and London exhibitions, including the first-prize herd at London on more than one occasion. The cattle are richly-bred in deep-milking and large butter-producing lines. The cows combine vigorous constitution with large capacity for work and beauty of form according to approved dairy type and are all registered in the A. J. C. C. Record. They are of the sort that pay a good profit for the feed they consume, and are not mere boarders. Dairy-men who need rich-testing cows to bring their milk to a higher standard of quality, or townspeople requiring a choice family cow, should not fail to attend this sale. The young heifers and heifer calves are handsome and promising well to make good workers in the dairy, as they are bred in the right lines for this on both sides of their parentage. The date of this sale is favorable to buyers, winter feeding being past and the prospect bright for early and abundant pasturage. The location of the sale is convenient, being only six miles from London and close to the village of Lambeth. The whole will be sold without reserve, the owner having sold his farm and retiring to the city. Catalogues are in preparation, and will be mailed on application, which should be made promptly to Mr. J. W. Humpidge, Lambeth, Ont., as the time is short.

W. J. SHEAN'S SHORTHORN SALE.

An important event announced in the ad. in this issue is the dispersion sale by auction of the fine herd of Shorthorns belonging to Mr. W. J. Shean, of Owen Sound, Ont., to take place on May 8th. The herd comprises 30 head, including the noted stock bull, imported Marengo's Heydon Duke (77200), now in his three-year-old form, a son of the great Royal champion, Marengo, winner of seven championships, who was sired by Scottish Archer, and out of Missie 118th, by William of Orange. The females, of which 15 are cows, bred to the imported stock bull, and five having calves at foot sired by the imported bulls, Golden Abel, Golden Conqueror and Baron's Heir, are of such popular Scotch-bred families as Crimson Flowers, Minas, Augustas, Primroses, Polyanthus, Strawberries, etc. The choice red cow, Augusta 3rd, and her yearling daughter, Augusta 4th, purchased from Mr. W. D. Platt, are included in the sale, and the cow is again bred to Imp. Spicy Marquis, winner of the championship at Toronto Exhibition last year, a son of Spicy Robin, dam by High Commissioner, and granddam by the great William of Orange. The pure Scotch-bred four-year-old imported cow, Miss Primrose, bred to Imp. Marengo's Heydon Duke, and due to calve in June, is also in the sale, besides two beautiful heifers and two young bulls, from eight to twelve months old, sired by the imported stock bull. The date of this sale is opportune, winter feeding being well over and a grand prospect for good pastures in view. Owen Sound is easy of access by the C. P. R. from Toronto and the G. T. R. from Stratford and intervening points. Capt. Robson, as auctioneer, will conduct the sale, and catalogues will be mailed on application to the proprietor.

POSITION as helper on the farm wanted by a man with good references.
Apply, **DR. WM. MOLE, V. S.,**
443 Bathurst St., Toronto.

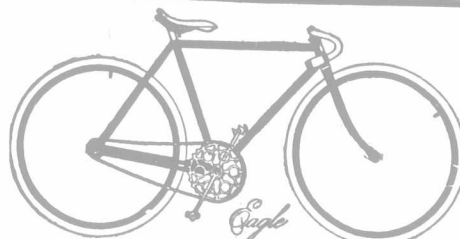
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From restrictions and liberality as to benefits and provisions are leading characteristics of the New Accumulation Policy of the Confederation Life Association.

It is a plain straightforward contract that it will pay you to secure.

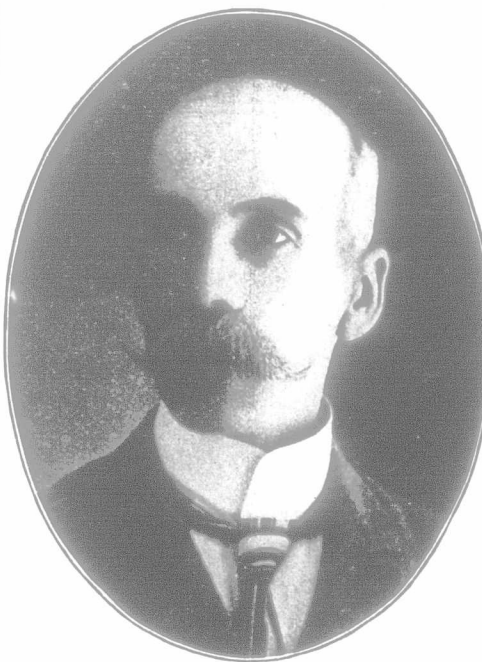
WRITE FOR PARTICULARS

CONFEDERATION LIFE ASSOCIATION
HEAD OFFICE, TORONTO



Cut this ad. out and send to us with \$1.00 State whether you wish Men's or Ladies' Bicycle, height of frame and gear wanted, and we will send you this High Grade 1903 Model Eagle Bicycle by express C.O.D. subject to examination. You can examine it thoroughly at your Express Office and if found perfectly satisfactory, exactly as represented a GENUINE EAGLE BICYCLE, HIGH GRADE, 1903 MODEL—pay to the Express Agent the balance due—\$29.00—and Express Charges. The express charges are only 50 to 75 cents for each 500 miles. No extra charge for Ladies' favourites with best Bicycle Clubs; they are the Highest Grade wheels made; big joints, finest hanger, hubs and bearings, highest grade equipment. Fitted with Dunlop double Tube Tires. Heights of frame—Men's 20, 22 and 24 in.—Ladies' 20 and 22 in.—enamelled Black. WE OFFER splendid chance to a good agent in each town. Send for catalogue and ask for Agents' Discounts. Wheels slightly used, \$8.00 to \$25.00. Secure Agency at once.

T. W. BOYD & SON, 1683 Notre Dame St., MONTREAL.



The accompanying picture is placed in the Farmer's Advocate for the purpose of drawing your attention to a man (myself) who is anxious to get acquainted with the farmers of Eastern Canada.

Just now I would like to ask you why you delay making investments in the Northwest Territories until the Americans buy up the best lands, the best locations, the best values. They are doing this very thing, and the Eastern Canadians should have their share of their own country.

Write me for information, or, better still, come up here this summer and make you selections.

I have the largest list of

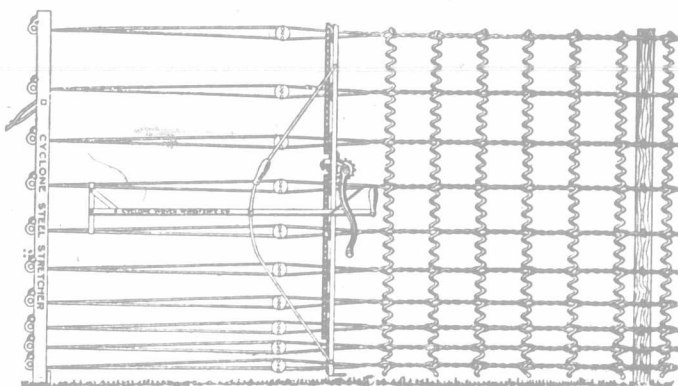
FARM LANDS

in the Territory to offer.

IMPROVED and UNIMPROVED
From \$3 to \$20 per acre.

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Write for circulars, on

You may borrow

YOU may borrow any amount of money with which to buy a home, a farm, or pay off a mortgage, and repay same in 20 years, or less, by small monthly payments, with absolutely no interest.

Write for book giving full particulars. We send it free on request.

THE **LOAN & SAVINGS CO.,**
LIMITED.
Capital - - - - \$ 250,000
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20 ST. ALEXIS STREET,
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LOCAL MANAGERS WANTED. om

GOSSIP.

At a draft sale of Shorthorns from the herd of Mr. H. F. Brown, Minneapolis, Minn., on March 31st, 34 females made an average of \$336, 4 bulls sold for an average of \$422, and the 41 head sold made an average of \$345. Five females sold for \$600 to \$610 each, and two bulls for \$500 each.

THE ISAAC SALE OF IMPORTED SHORTHORNS.

Those who have seen the 45 imported Shorthorns advertised to be sold at auction by Messrs. Geo. and John Isaac, at Markham, Ont., on the 13th of May, agree that they are a grand good lot, of the best type, full of character, constitution and quality, and carrying a wealth of natural flesh that will wear. A capable judge, who has seen all the importations of the Messrs. Isaac, gives it as his opinion that a better lot of heifers never stood in the homestead stables, which is certainly saying a good deal. The cattle have been carefully and well selected and judiciously fed and cared for, and, therefore, are likely to do well for those into whose hands they go. There are forty females and five young bulls listed in the catalogue. Only one of the females is over four years old and the majority are two-year-old heifers, in calf or having calves at foot that were imported in dam and sired by high-class bulls in Scotland. Most of the heifers have been bred to the imported roan yearling Cruickshank Nonpareil bull, Nonpareil Archer, bred by Mr. Bruce, of Heatherwick, sired by the Duthie-bred Prince of Archers (71210), dam Nonpareil Blossom, by Sittytton Sort. This young bull is in the sale, and will be a prize to whoever secures him as a stock bull, as his breeding is in the purple and he is, individually, excellent in his make-up, showing lots of character and quality. He was the best of Mr. Bruce's bull calves of his year, and has gone on well. Another excellent young bull, low-down and thick-fleshed, is Everlasting, a roan, of March, 1902, bred by Mr. Durno, of Westerton, sired by Landmark (79183), and out of Eleanor, by Illustrious (67211). Royal Archer, a roan, Bruce-bred bull, calved in April, 1901, a son of Prince of Archers and of Rosalie 5th by Radical (54886), is another of sterling character and quality which may be depended upon for a sire. Mention may be made of a few of the

(Continued on page 382.)

IMPORTANT DISPERSION SALE OF Imported Scotch Shorthorns

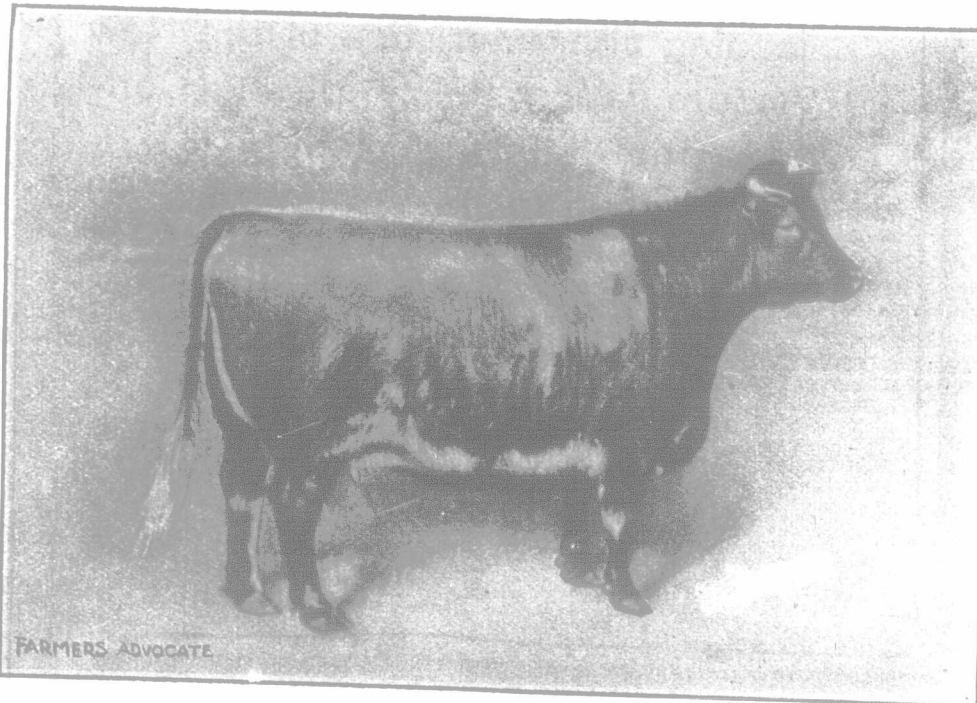
At the Village of

Markham, Ontario,

on the Midland branch
of the G. T. R., 22 miles
from Toronto, and three
miles from Locust Hill
Station, C. P. R., on

Wednesday,

May 13, 1903



The entire herds of Imported
Shorthorns belonging to

GEO. ISAAC, Bomanton,

AND

JOHN ISAAC, Markham,

consisting of

45 HEAD

All young and in prime breeding
condition. These cattle were select-
ed from many of the best herds in
Scotland, and many of them will
make show animals. The females
of breeding age have been bred to
first-class Scotch bulls. This is
such an opportunity to secure
imported cattle as will not soon
occur again.

CATALOGUES WILL BE MAILED ON APPLICATION TO

JOHN ISAAC, MARKHAM, ONT.

Conneycances will meet morning
trains at Locust Hill, C. P. R.

**CAPT. T. E. ROBSON, ILBERTON,
GEORGE JACKSON, PORT PERRY, AUCTIONEERS.**

GOSSIP.

(Continued from page 381.)

females, as samples of the offering. And first we note the show heifer, Lady Ann 14th, a roan, born Feb., 1901, bred by Messrs. Peterson, Dunglass, sired by the Duthie-bred Royal Victor (7552), and her dam by Commodore (65286). She is one of the approved sort in type and quality, level in her lines, thickly-fleshed, deep-bodied, and covered with a choice suit of hair. Perhaps the next best, if not the choice, as she is preferred by some, is the roan Merry Maid 10th, calved in January, 1901, from the same herd as the last named, sired by Eclipse (74470), dam Red Rover (75396), bred by Mr. A. M. Gordon, of Newton. She is a very thick, even-fleshed heifer of a charming type, and will be sought after at the sale. Charming Gem, a roan, of April, 1901, bred by Mr. Anderson, Ballochreggan, sired by Challenger (79199), one of the best bulls in Scotland, dam one of the Gem of the Vale family, is another very choice heifer. The twin heifers, Countess 5th A. and Countess 6th A., a roan and a red, also bred by Mr. Anderson, and sired by Challenger, dam by Senacherib and granddam by the Duthie-bred Boulevard, are a handsome pair, showing fine breeding and quality. Belle 2nd, a red two-year-old, sired by the Marr-bred Morello (81745), dam by Jealous Lad (79118), bred by A. M. Gordon, is a sweet and substantial heifer, with a capital red heifer calf at foot, which should prove a profitable lot. Among the very best are two roan Marr Golden, Golden Duchess and Golden Daisy, bred by Mr. McWilliam, Stronachan, born in January and February, 1901, the former sired by

DISPERSION SALE OF REGISTERED SCOTCH-BRED SHORTHORNS

AT

ROSEVALE STOCK FARM, Owen Sound, Ont.,

ON

FRIDAY, MAY 8th, 1903.

The entire herd of

**30 HEAD OF HIGH-CLASS
SHORTHORNS**

Belonging to MR. W. J. SHEAN,

Including the stock bull, Imp. Marengo's Heydon Duke, son of the Royal champion Marengo. The females comprise members of such noted families as Crimson Flowers, Minas, Primroses, Augustas, etc.; 17 cows bred to Imp. Marengo's Heydon Duke; 5 cows with calves at foot by imported bulls; also a number of heifers and 2 young bulls, 8 to 12 months old, sired by imported bulls.

Sale to commence at 1 o'clock p. m.

Catalogues mailed on application to

CAPT. T. E. ROBSON,

AUCTIONEER.

W. J. SHEAN,

OWEN SOUND, ONT.

Rover of Sanquhar (75689) and the latter by Pride of Lancaster (77655). These combine rich breeding with individual merit of a high order. A Cruickshank Brawith Bud of excellent type is the red two-year-old, Flora McDonald, bred by Mr. Watson, Auchronie, sired by the Cruickshank bull, Clan Alpine (60695), dam Flora 5th, by Nero. One of the most choicely-bred females in the sale is the five-year-old Cruickshank Orange Blossom cow, Blossom 2nd (imp.), sired by Sittyton Style (69616), and her dam by the noted Star of Morning. She is a good, thick-fleshed cow, of fine character, and will be due to calve before the sale.

Space forbids further mention in this issue of other worthy numbers in the list. Enough has been given to indicate the general character of the offering, which, it will be seen, is of no ordinary description, and reference to others may be looked for in our next issue. In the meantime, all interested will do well to apply for the catalogue and study its contents. As an evidence of the interest taken in this sale, it may be mentioned that Mr. Isaac received a number of applications for the catalogue before his copy of the "Advocate" containing the advertisement reached him.

Of the imported Belgian stallions illustrated on another page, we are assured by our agent, who has seen the horses, that the photos by no means do them justice, as they are handsome, well-proportioned, heavy-bodied, with snappy action and excellent feet and limbs. Writing of them, the Baron de Champouis says: "These horses must be sold to make room for new spring importation, prices ranging from \$600 to \$1,000. All first-class and full-blooded animals, perfectly acclimated. Points are: extra short backs, big rumps, great action, lightness on feet, no long hair on legs, extra good, high and dry feet; wide-awake horses; perfectly gentle and kind; all broken for harness; sure foal getters."

In answer to any inquiries from this page, kindly mention the FARMER'S ADVOCATE.

Churn, Churn!

Windsor salt lightens the task of churning butter. Every flake of it dissolves quickly—you'll find no gritty particles in the butter, because Windsor Salt is all Salt.

Windsor Salt.

Best grocers sell it.

Binder Twine

HARVEST OF 1903.

Farmer's Binder Twine



Brantford, Ontario.

THIS COMPANY has again set its prices on Binder Twine for the harvest of 1903. It may well be said we lead the way. The duty of every intelligent Canadian farmer in this deal is easily defined. For ten years we have put up a good fight in the interests of co-operation, and have absolutely regulated the price charged you for Binder Twine in every locality where we have made a shipment. If you want us to continue this same deal, give us your undivided loyalty and patronage. Don't order or buy a single pound of twine from any other concern until you know this Company's is actually exhausted. If we fail to have a farmer agent in your district, give us the name of a good man or two, and we will immediately make the appointment.

You have it in your power, as Canadian agriculturists, to say whether this organization is to continue or not. No other element or opposition can pull down our standard. The country is in danger from trusts. Farmers, you are up against it.

JOSEPH STRATFORD,
General Manager.

NOTICE.

KEEPING PACE with the commercial growth of the times, the Sovereign Bank of Canada has opened up still another branch, at Harrow, Ont. The Sovereign is a purely Canadian bank, and it enjoys the confidence of a wide clientele.

GOSSIP.

Mr. J. W. Barnet, manager of the noted Shorthorn herd of Messrs. W. C. Edwards & Co., Rockland, Ont., reports the following recent sales: To John Gamble, Cumberland, Ont., the well-bred Mina bull, Marquis of Bute; to G. & W. Rennie, Castleavery, Man., Ivanhoe, got by Marquis of Zenda, dam Iris (imp.). This bull belongs to the same family as the noted Silver Plate, now in use in the King's herd at Windsor. He is a right good one and grandly bred, and will surely make a good sire. Another remarkably good calf was Red Marquis, sold to Walter Mahon, Roseberry, Man. He has a grand head, horn, neck, shoulder and back, with good quarters and a wealth of flesh that is seldom found. He should be heard from again. As his name implies, he is by Marquis of Zenda, and has for dam a grand Brawith Bud cow, Crocus 4th (imp.). A half-brother to this bull (imp. in dam) was Red Archer, by Mountain Archer, sold to Albert Hagar, Plantagenet, Ont. He is one like making a good breeding bull. To R. R. Sangster, Lancaster, Ont., Red Prince, got by Prince of Fashion (imp.), dam the well-bred imp. cow, Rose of Autumn 3rd, by Gravesend. To A. Russell, Arnprior, Ont., Flower Boy, by Marquis of Zenda, dam Whiteflower 2nd (imp.); also, the heifer Mary 4th of Leeds. To Thos. McDonnell, Shawville, Que., the bull Thickset, got by Marquis of Zenda, dam the Secret cow, Fernleaf. He is all that his name implies, and a better description of him cannot be given. To H. J. Elliott, Danville, Que., the very straight, even bull, Prince of Pine Grove, by Prince of Fashion (imp.), dam the good-breeding Mina cow, Mildred 9th. To Stephen B. Weldon, Middle Coverdale, N. B., the

The Dairy S.
When the dairy alphabet is written, the letter S will stand for three things—**Simple, Satisfactory, Sharples.** They all mean the same thing:

Sharples Tubular Dairy Separators.

The simple separator—free from complicated parts—easy to turn and easy to clean. The satisfactory separator—getting more cream of better quality—yielding a 6% greater profit on your investment than any other separator. Our Business Dairying Book No. 108 explains how and why, but our separator tells its own story better than words can. You may try it and then decide whether you want it or not.

Sharples Co., Chicago, Ill. P. M. Sharples, West Chester, Pa.

COOPER SHEEP DIP

STANDARD OF THE WORLD

for 60 years. Used on 250 millions annually. Superior to all other kinds. No smell. Benefits while it cures. Keeps flock clean a long time. Increases growth and quality of wool. Used by large majority of sheep breeders in all countries.

Sold by all leading druggists and general merchants everywhere.

If local druggist cannot supply, send \$1.75 for \$2 (100 gal.) pkt. to **WM. COOPER & NEPHEWS, CHICAGO.**

Missie bull, Missie's Masterpiece, also, the heifer, Lady Leslie. To M. Laidry, Clarence Creek, Ont., the bull, Mary's Marquis, and to N. S. Robertson, Arnprior, Ont., the heifers, Beauty of Fort-ton and Ada of Leeds. We have a few good bulls yet for sale, but are keeping the balance of our heifers for the sale to be held at Hamilton in June next.

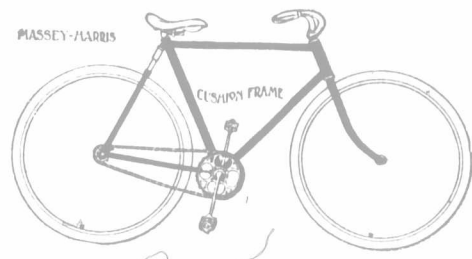
DISPERSION SHORTHORN SALE.

Attention is called to the advertisement, in this issue, of the dispersion sale by auction, to take place at Exeter, Ont., on May 6th, of the entire herd of 30 Shorthorns of Mr. Samuel Cudmore, Hurondale, Huron Co., also of eight pure-bred Yorkshire sows. The stock bull in service, and included in the sale, is the roan four-year-old, Scotch-bred, Junior Member, bred by Messrs. Cargill & Son, sired by Imp. Royal Member, dam Rosalind 2nd, of the Kinellar Rosebud tribe, by Imp. Albert Victor. A bull so richly bred could hardly fail to prove a good sire, and as most of the females have, we understand, been bred to him their value is thereby enhanced. Among the females is the red three-year-old, Isabella 14th, of the favorite Kinellar Isabella family, with good Scotch top crosses. A number trace to the good Imp. Lady Jane, by Sir Walter, a strong Booth foundation from which many prize-winners at leading shows have been bred. Others trace to Imp. Baffodil =122=, with excellent top crosses of Scotch-bred bulls. There are three or four well-bred young bulls in the sale, and the Yorkshire sows are said to be eligible to registry. Exeter, where the sale is to be held, is on the London and Wingham branch of the C. T. R., 30 miles north of London and 20 miles south of Clinton Junction. Catalogues may be had on application, as per advertisement.

A Wheel on the Farm

A wheel is as useful on a farm as a horse—not so expensive, to begin with—doesn't eat. It's ready at a moment's notice to take you on a pleasant jaunt to the post office or to your neighbor. It is city transportation in the country. Lately there have been some big improvements in the bicycle, principally the hygienic

**CUSHION
FRAME**



A device that makes all roads smooth roads, that is to wheeling what the "Pullman" is to railroading.

Massey-Harris

Bicycles have it. Write for our new booklet, "In Bicycledom."

Canada Cycle & Motor Co., Limited.

Head Office and Works: TORONTO JUNCTION.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

THE ONTARIO and SASKATCHEWAN LAND CORPORATION, LIMITED.

(Incorporated under the Ontario Companies Act.)

Capital, \$1,000,000. Divided into 10,000 Shares of \$100 Each.

OFFICERS AND DIRECTORS:

PRESIDENT—THOS. LONG, Esq., Director The Toronto General Trusts Corporation, Merchants Bank of Canada, Northern Navigation Company, etc., etc.

VICE-PRESIDENTS—HON. GEORGE E. FOSTER, Managing Director The Union Trust Company, ex-Finance Minister of Canada. HON. ROBERT WATSON, Senator of Dominion of Canada, ex-Minister Public Works, Manitoba.

DIRECTORS—SIR DANIEL H. McMILLAN, K.C.M.G., Lieutenant-Governor of the Province of Manitoba. J. J. FOY, Esq., K.C., M.P.P., Director The Dominion Bank, The Toronto General Trusts Corporation, The National Life Assurance Company, Niagara Navigation Company, etc., etc. LIEUT.-COL. JOHN I. DAVIDSON, President The Davidson & Hay, Limited, Director the Union Trust Company, W. J. HAMBLY, Esq., President The Canadian Savings, Loan and Building Association. JOHN ARBUTHNOT, Esq., Mayor of the City of Winnipeg. HON. MR. JUSTICE PRENDERGAST, Judge Supreme Court Northwest Territories. D. MCGREGOR, Esq., Manager The Canadian Bank of Commerce, Galt, Ont.

SECRETARY—JAMES TURNER SCOTT, Vice-President Canadian Savings, Loan and Building Association.

EASTERN BANKERS—The Merchants Bank of Canada.

WESTERN BANKERS—The Union Bank of Canada.

GENERAL SOLICITORS—MESSRS. SCOTT & SCOTT, Toronto.

WESTERN SOLICITOR—J. T. HUGGARD, Esq., Winnipeg.

TRUSTEES—The Union Trust Company.

PROSPECTUS:

T HIS CORPORATION has been formed for the purpose of dealing in lands in Manitoba and the Northwest Territories of Canada. Up to a few months ago practically the whole profit from dealing in the lands in the great western portion of our country had been reaped by shrewd American investors, who realized the immense possibilities and the certain future of Western Canada, before we Canadians realized the immense heritage which lay within the boundaries of our own country. In the last months of the year 1902, however, the promoters of this Corporation, having, through the different financial institutions with which they are connected, been obliged to make a careful study of the Western situation, became so thoroughly satisfied of the certain future of the Great West and of the practically assured profit from an investment in Western lands, that they decided to form a company to deal in land in the Canadian West. With that end in view, a block of something over 125,000 acres was secured in the Big Quill Plains, in the District of Saskatchewan, and a company known as The Eastern and Western Land Corporation, Limited, was formed for the purpose of acquiring and handling this block. The stock of The Eastern and Western Land Corporation, Limited, was placed upon the market and offered to the public for subscription in January of the present year, and so prompt was the response that within one month it was necessary to close the stock books, and even then applications for a large quantity of stock were refused. But, from a shareholder's standpoint, the best part remains to be told. Before the sales of stock were stopped, arrangements had been made with a large American Land Company for the sale of the whole of the Company's lands at a price so largely in excess of the purchase price that the stock of The Eastern and Western Land Corporation, Limited, is already a very profitable one and is held very firmly by its present holders, and all this was done in less than one month. Can any better proof be given of the wisdom of an investment in Western lands?

At the time The Eastern and Western Land Corporation, Limited, was dealing with the Quill Plains lands, the Directors had in view several other available blocks of land and were having the same carefully examined, but waited until the result of the one operation proved to the Canadian public the safety and profit of an investment of this kind. This has now been abundantly shown by the success of The Eastern and Western Land Corporation, Limited, and we have therefore no hesitation in placing before the public the stock of The Ontario and Saskatchewan Land Corporation, Limited.

It is only within the last year or two that Canadians have come to realize that Canada's future in a great measure lies in the West, a country immeasurably larger than the east, and capable of supporting in comfort millions of people. Few in Eastern Canada realize the great progress this Western country is now making, and that before many

years the West will surpass the east in point of population. Immigrants are pouring in, and the people of the United States especially are investing immense sums in land and holding for the rise which they know is sure to come. Lands in the West are increasing rapidly in value. Investments in them now are bound to realize handsome profits. The Canadian Pacific Railway Company, in 1902, sold 2,420,440 acres, as against 830,922 acres for the previous year; The Canada Northwest Land Company sold 516,000 acres, as against 120,000 acres for the previous year; The Saskatchewan Valley Land Company of St. Paul, Minnesota, sold over one million acres of land in 1902, at a profit of some millions of dollars; The Haslam Land and Investment Company of St. Paul, Minnesota, sold 300,000 acres in one year; The Northwest Colonization Company of St. Paul disposed of over 500,000 acres, and if to these be added the lands sold by the Dominion and Manitoba Governments, the Canadian Northern Railway and other companies, syndicates and individuals, an opinion may be formed of the immense advances this Western country has made in one year.

The Ontario and Saskatchewan Land Corporation, Limited, has purchased a large tract of land in what is known as the Vermilion River District, in Western Saskatchewan. It has been a tradition for years in the West that the most fertile belt of land in Canada, and therefore in the world, is situate in this district, which lies along and between the Battle River, to the south, and the Saskatchewan on the north. In this fertile country we have the right to select 300,000 acres of specially chosen land, and our selectors are now in the district carefully examining the land section by section. This land will lie along and between the Edmonton extension of the Canadian Pacific Railway and the transcontinental line of the Canadian Northern Railway, thus assuring to settlers the immense advantage of two competing lines of railway, each within easy access to their farms and to markets. For soil, water, timber, fuel, grass and hay this land is unsurpassed in the world, and these points are what determine the settler in choosing land. Our land immediately adjoins the Barr settlement of British settlers, and also Dr. Adams' colony of Nestorians, and the placing of over 20,000 settlers by these organizations in this district within the next year practically assures a rapid increase in the value of our lands.

No lands are purchased by this Corporation except after a careful and capable report by the most experienced land selectors in the West, and thus practically every element of risk is eliminated from an investment in the shares of this Company.

This is an investment which should especially appeal to the Canadian public, as it gives a practical certainty of profitable returns without the risk so often run in investing in companies doing a business of a hazardous nature, and it is an investment which Canadians believing in their own country and its future may make, feeling that in so doing they are helping to develop their own land.

The Union Trust Company, Ltd., Now Offers \$800,000 of the Capital Stock

of this Corporation, divided into 8,000 shares of \$100 each, for subscription at par, 25 per cent. to be paid in on application, 10 per cent. in 30 days thereafter, and 10 per cent. further in 60 days, and the balance as called by the Directors, if deemed necessary. Applications for stock will be accepted only in order of their receipt by the Trustees, and should be addressed to The Union Trust Company, Limited, Toronto. Applications and also the large prospectus of the Company may be obtained from The Union Trust Company, Limited, Toronto, or from any branch of The Merchants Bank of Canada, or of The Union Bank of Canada, through whom all applications and payments may be forwarded.

For advertising the advertiser's name on this page, kindly mention the FARMER'S ADVOCATE.

A CAREFULLY SELECTED IMPORTATION OF JERSEY CATTLE

To be sold by auction at
JERSEY ISLE STOCK FARM, RUSHVILLE, IND.,
TUESDAY, APRIL 28th, 1903.

The property of CASE & WALKER, importers.
Apply for catalogue giving pedigrees and other information, to
PETER C. KELLOGG, Auctioneer, 107 John Street, New York,
Or
THE JERSEY BULLETIN, 124 So. Ills. St., Indianapolis, Ind.

DISPERSION SALE OF Registered Jerseys

Having sold my farm, I will sell at public auction, without reserve, at the farm, at the Village of Lambeth, 6 miles from the city of London, Ont., on

Wednesday, April 29th, 1903,

my entire herd of

31 HEAD of HIGH-CLASS JERSEY CATTLE

27 females, 15 of which are in milk, and 4 young bulls, all registered in the A. J. C. C. Herd Register. These cattle are richly bred, being of deep-milking and large butter-producing families, and are both handsome and of strong and vigorous constitution. Besides the cows in milk, there are a number of beautiful young heifers of great promise.

Catalogues will be mailed on application.
A. M. HUNT, LONDON, Auctioneer. **J. W. HUMPIDGE, LAMBETH, ONT.**

DISPERSION SALE BY AUCTION OF REGISTERED Shorthorn Cattle AND PURE-BRED YORKSHIRE PIGS

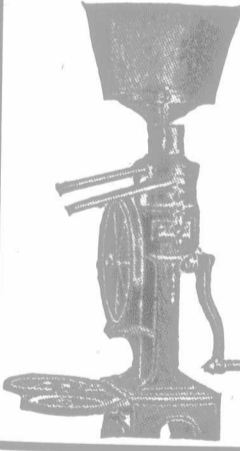
The property of **SAMUEL CUDMORE, Hurondale, Ont.**, with small contributions from herds of **J. W. Ellison and W. H. Harvey**; in all 30 head of **SHORTHORNS** and 8 **YORKSHIRE SOWS**. To be held in the Fair Grounds, in the

VILLAGE of EXETER, County of Huron,
London & Wingham branch G.T.R.

ON WEDNESDAY, MAY 6th, 1903.

Catalogues on application to
CAPT. T. E. ROBSON, ILBERTON, AUCTIONEER. **SAMUEL CUDMORE, HURONDALE, ONT.**

**EXIT, THE WASTES;
ENTER, THE SAVINGS**



IT DRIVES OUT drudgery, banishes worry, ushers in economy, and gives zest to lightened labors.

WHAT? **WHY,** the American Cream Separator, of course.

BEST, because simplest, most durable, cleanest smoothest to operate, and easiest to buy.

YES, you'd better write now.

C. RICHARDSON & CO.,
P. O. Box 1048. ST. MARY'S, ONT.

14K. GOLD WATCH FREE

What is the use of spending \$25.00 or \$50.00 for a watch when you can get one for nothing that looks like a Solid Gold Watch and keeps time equal to any \$50.00 watch. Here is your chance. We will give this handsome reliable watch to any person who will sell for us only 16 **Canadian Home Cook Books** at 15c each. These books are nicely printed, beautifully bound and each contains 733 choice recipes. **Every lady buys one.** A 50c certificate free with each book. This is not a cheap pocket watch, but a handsome watch, finished and set, fitted with reliable American works, carefully tested and adjusted before leaving the factory, and positively guaranteed by the maker. If you could afford to pay \$50.00 for a watch you could not get one that would look better, or keep better time than the one we here offer you absolutely free. **T. E. Dunbar, Roulton, Ont.** says: "I sold the watch for \$6.00 as good as I got it." Write us a **Post Card** today and we will send the Cook Books postpaid. They sell themselves. **The Home Specialty Co., Dept. 521 Toronto, Ont.**

Low Rates West.

Only \$33 Chicago to San Francisco, Los Angeles, Portland, Tacoma, Seattle, and many other Pacific Coast points, every day, Feb. 15 to April 30, 1903. One-way, second-class, colonist rates via Chicago, Milwaukee & St. Paul and Union Pacific line. To the Northwest via this route, or via St. Paul. Additional information on request.

A. J. TAYLOR, Can. Freight & Pass'r Agt.,
8 King St. East, Toronto, Ont.

RIBBON BARGAINS



Lovely Silk, Satin and Velvet Ribbons almost given away. We have a full & very large stock of fine ribbons at a mere fraction of their regular selling price, and we are going to give the ladies of this country a **bargain that will astonish and delight them.** These are not cheapies, but **rich heavy ribbons, some of them 4 inches wide, and all in complete rolls.** We are making these up into boxes, each containing a variety of widths, colors and lengths, some 4 inches wide, and no piece less than **1 yard long, some pieces 3 yards long.** **It will never be 25c to offer you another bargain like this.** Write us today, and we will send you a box. **The Mail Order Supply Co., London, Ont. Dept. 521 Toronto.**

MOOSE JAW LAND AGENTS.

The prosperous town of Moose Jaw is centrally located in Assiniboia, 399 miles west of Winnipeg, on the main line of the C. P. R. Land in the district is a heavy clay loam, exceptionally well adapted for wheat growing. Everyone here has a prosperous, well-satisfied air, and all are evidently comfortably located and enjoying plenty of this world's goods.

A deplorable fact in connection with this great Northwest is the lack of progressiveness among our Ontario farmers in taking advantage of the many openings for successful speculations. It is a common saying among the land agents in the West that an American will have invested and made a profit of several thousand dollars before the Ontario man makes up his mind to buy. A great difficulty with easterners is that we cannot readily grasp the situation which places choice land at such low prices. We do not stop to consider that not many years ago our Ontario land was very cheap. The American speculator in many instances comes into the Canadian West and deposits his money at the order of a reliable land agent, who buys to good advantage, and often the land is turned over and a large profit made by an owner who has never even seen the parcel of land which was bought for him by the agent.

M. J. Jacobson, of Wheaton, Minn., has a branch office in Moose Jaw, and during the past year has located over 300 settlers in Assiniboia. He also had a special train of 35 cars leave Wheaton on April 7 for the Moose Jaw and Weyburn districts, and in May 30 more cars will leave the same place. **Mr. Jacobson is the Canadian Government agent in Western Minnesota, and locates homesteads in Assiniboia free of charge.**

G. M. Annable is a progressive Moose Jaw land agent and live stock dealer, who has done business in the district for 20 years. Mr. Annable is president of the Moose Jaw - Saskatchewan Land Co., which owns a block of 50,000 acres north of and immediately adjoining the town of Swift

Current. This block contains some fine grazing and wheat lands, and is watered by the Saskatchewan and Swift Current rivers. He is also agent for several parcels of choice private lands near Moose Jaw.

J. R. Green, an enterprising land dealer, has been in business in the Moose Jaw district for 14 years. **Mr. Green came from Middlesex county, and has travelled well over that portion of Canada west of his native county, and he expresses the opinion that Moose Jaw is in the best agricultural district he has yet visited.** His father and brothers have farmed here for 15 years, and have had splendid returns. He expects to start a steam plow to work about the first of May.

J. H. Kern recently erected a fine hotel in Moose Jaw. This house is now open to the public, under the name of **The Brunswick.** **Mr. Kern has resided in Moose Jaw for ten years, and owns a large acreage of good wheat land near the town and along the Soo line of the C. P. R. He will sell this land at a low price and on easy terms.**

Brunswick Hotel, Moose Jaw

J. H. KERN, Proprietor.
Choice Wines, Liquors and Cigars.
First-class accommodation.

JNO. R. GREEN, DEALER IN LANDS, MOOSE JAW, N.-W. T.,

Has for sale some of those choice parcels of land, convenient to shipping point, of the same price as are producing, year in and year out, an average of 30 bushels of wheat per acre under good cultivation. Will send you full information as to price, terms, etc. Don't start for the West, looking for land, until after you have received a reply from me.

FOR SALE Several WELL IMPROVED FARMS

Near **MOOSE JAW, ASSA.** Also 50,000 acres of improved land in the Swift Current district. We can also locate you on a free Government homestead. Correspondence solicited.

G. M. ANNABLE,
Dealer in Real Estate and Live Stock,
MOOSE JAW, ASSA.

M. J. JACOBSON FARM LANDS INSPECTED, HOMESTEADS LOCATED, FREE OF CHARGE.

30,000 acres choice wheat land in 10,000-acre blocks, \$5.50 to \$7 per acre.
20,000 acres improved and wild land, in quarter and half sections. Write at once to

M. J. JACOBSON,
Moose Jaw, Assa., or Wheaton, Minn.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



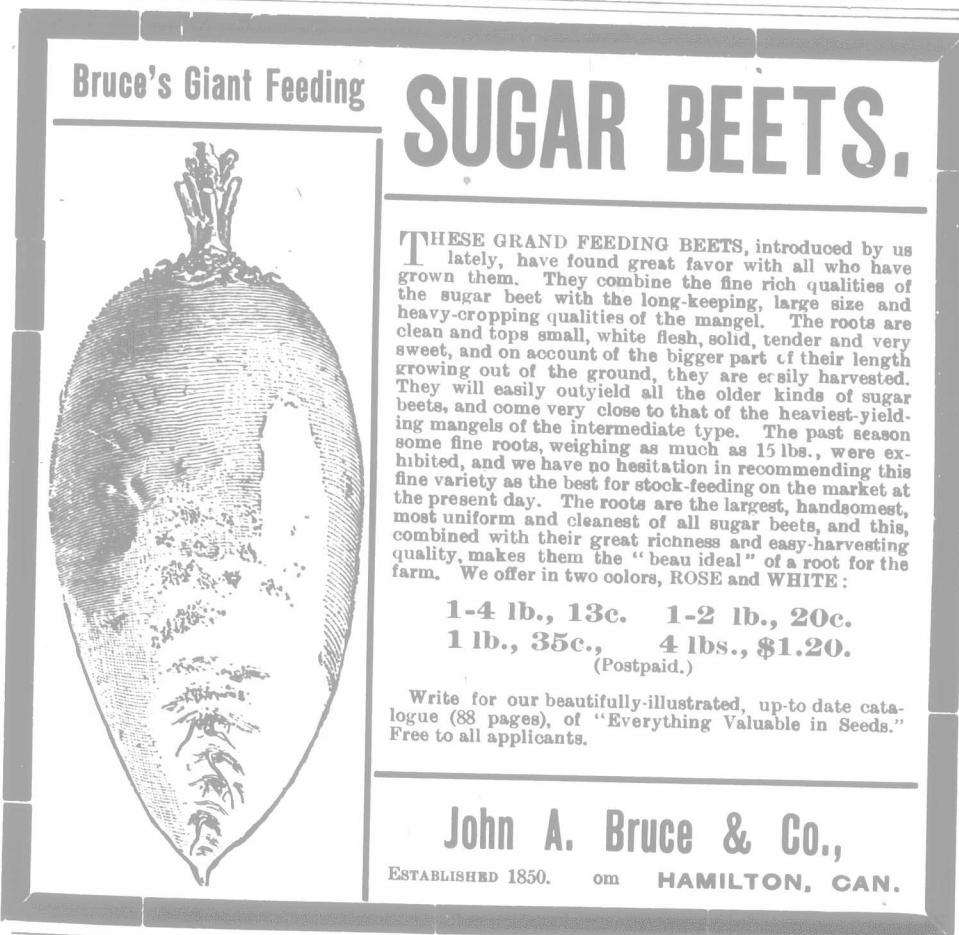
De Laval Cream Separators

In every corner of the world where butter is made, you will find these machines, also an established agency for their sale.

Over 400,000 of them in daily use; more than ten times all other makes combined.

After twenty-four years of uninterrupted success, they remain to-day the world's leading dairy machine.

THE DE LAVAL SEPARATOR CO., 77 York St., Toronto.



Bruce's Giant Feeding SUGAR BEETS.

THESE GRAND FEEDING BEETS, introduced by us lately, have found great favor with all who have grown them. They combine the fine rich qualities of the sugar beet with the long-keeping, large size and heavy-cropping qualities of the mangel. The roots are clean and tops small, white flesh, solid, tender and very sweet, and on account of the bigger part of their length growing out of the ground, they are easily harvested. They will easily outyield all the older kinds of sugar beets, and come very close to that of the heaviest-yielding mangels of the intermediate type. The past season some fine roots, weighing as much as 15 lbs., were exhibited, and we have no hesitation in recommending this fine variety as the best for stock-feeding on the market at the present day. The roots are the largest, handsomest, most uniform and cleanest of all sugar beets, and this, combined with their great richness and easy-harvesting quality, makes them the "beau ideal" of a root for the farm. We offer in two colors, ROSE and WHITE:

1-4 lb., 13c. 1-2 lb., 20c.
1 lb., 35c., 4 lbs., \$1.20.
(Postpaid.)

Write for our beautifully-illustrated, up-to-date catalogue (88 pages), of "Everything Valuable in Seeds." Free to all applicants.

John A. Bruce & Co.,
ESTABLISHED 1850. om HAMILTON, CAN.

GOSSIP.

The firm of McCallum-Hill Co., at Regina, is composed of E. A. McCallum, W. H. A. Hill and E. D. McCallum. This concern carries on an extensive real-estate business, and are placing a large number of settlers on wild and improved farms. Mr. E. A. McCallum, speaking of the price of farm lands in the vicinity of Regina, stated that "good land could be had at from \$5 to \$10 per acre. The day is past when choice land can be purchased in Regina district at \$5 per acre. Improved farms sell at from \$8 to \$10 per acre." McCallum & Co. have several large blocks of land, ranging in size from 5,000 to 1,000 acres.

W. J. Young, one of the pioneers of Regina, recently sold out his interest in the Regina Trading Company, Ltd., and has established himself in real estate business. Besides being president of the Board of Trade, Mr. Young enjoys the confidence of his fellow citizens in many other responsible civic positions. Fair dealings with all has won for him a most enviable reputation. Besides much city property, Mr. Young has a carefully selected list of farm lands for sale.

FOR SALE 320 ACRES OF HEAVY BLACK WHEAT LAND

Four miles north of Summerberry, main line C. P. R., at \$10 per acre.

Apply **S. V. BRAY, LUMBER DEALER, Wolseley, N.-W.T.**

Our Motto: "HIGH-GRADE WORK ONLY."

CENTRAL Business College
STRATFORD, ONT.

Our graduates secure good positions because our high-grade training prepares them to render first-class services. Enter now for a course. Beautiful catalogue free. **W. J. ELLIOTT, Principal.**

Seed Oats, Speltz and Seed Potatoes for Sale

OATS—Salzer's Big Four, New Century and Waverly. Also speltz. POTATOES—Early varieties: Burpee's Extra Early, Steele's Earliest of All, Hammond's Early Rose, and Salzer's Early Fortune. Late varieties: Salzer's Pricetaker, Salzer's Free Silver, and Hammond's Wonderful. Also a few Shorthorn bulls, English Berkshires and Improved Chester Whites. Young stock always for sale. Write for prices to **T. E. BOWMAN, BERLIN, ONT.**

Regina, Capital of the N.-W. T.

Early in the fall of 1882, Regina was decided upon as the capital of the Northwest Territories, and a town site was surveyed in September, by Mr. Pearce, now Dominion Lands Agent at Calgary. The place was formerly known as Pile-of-Bones Creek, a name derived from the many buffalo bones scattered about. From that time up to the present Regina has steadily gone ahead, until now it has a population of nearly 4,000, and is the business center for an immense area of country. It is situated on the C. P. R., 396 miles west of Winnipeg, and is the southern terminus of the Prince Albert Railway.

Regina has some fine public buildings, among which are the Government buildings, Northwest Mounted Police barracks, an Indian Industrial School, and a large post office building, besides public schools. The elevator capacity of the town amounts to 100,000 bushels, and many elevators are located on the C. P. R. main line and Prince Albert branch within a few miles of the city. The city is well located in the center of an exceptionally good wheat country, that portion of which is immediately tributary to the city being occupied principally by grain and mixed farmers, who in the majority of cases are well-to-do, and many of them are wealthy. The large yields of wheat and coarse grains enable the farmers to have a good bank account to their credit. A good proof of the quality of the land and the resources of the district is the large and continual influx of settlers, the majority of whom are from the American side, and who have recognized in Regina a great farming center.

Farther away from the city, one finds numerous ranches on which are large bunches of cattle, sheep and horses. There are ranchers who own 16,000 head of cattle, although the average is from 500 to 2,000 head, while the number of horses averages in smaller numbers. Sheep ranches are not so common as horses and cattle ranches, but those who are interested in sheep handle very large numbers. The rancher, as a rule, is a "ball fellow well met," and spends money very freely.

Many easterners are under the impression that this is a land of almost unbearable cold, but such is not the case. Although at times the thermometer registers as low as 40° below zero, one does not mind it, as the atmosphere is very dry and the weather bright and sunny. It is rarely that Regina has as frosty weather as this, and it is a peculiar fact that one can leave Regina at forty below and not mind the cold in the least, but in a few days when he arrives in Ontario and finds it at about zero he is shivering with the cold. This fact is due to the dampness of the Ontario atmosphere as compared with that of Regina.

Another erroneous idea entertained by some people is that this country of which we write is still the "wild and woolly West." In regard to this phase of Western life, we can only say that the law is well observed and enforced, for the Mounted Police are very efficient guardians of the laws of the country, and these men are to be congratulated upon the excellent manner in which they preserve law and order in this vast country, the Northwest Territories.

Persons desirous of learning prices of land and securing other information not given in this article, would do well to write any of the gentlemen whose advertisements appear herewith.

We, in the east, cannot appreciate the vast resources of this great wheat-growing and ranching district. It is only by visiting Regina and viewing the growing crops and the large bunches of stock that we are enabled to form the faintest idea of Regina's great wealth and productive qualities. It is well worth the while of anyone interested in agriculture or stock to visit this veritable Garden of Eden, for he will certainly never regret the cost of a trip through this district in the harvest time. One sees crops which he can scarcely believe possible to grow, and he is tempted to stop and pinch himself to be sure it is not all a dream.

There is still plenty of choice land to

be had at very low prices, and now is the time to buy, for land is rising in price very fast. Free homesteads may also be had some distance from Regina, and a farm secured by homesteading is very easily earned. A man can make his homestead entry for ten dollars, and can get a permit to cut wood, rails or timber on Government lands for twenty-five cents.

All classes of labor is in great demand, and good wages are paid. Especially is this true of girls who are willing to do housework.

REGINA LANDS

ARE GOOD LANDS.

IF YOU DON'T BELIEVE IT

COME AND SEE

FOR YOURSELF.

Write for Pamphlet

AND FULL INFORMATION

TO

WM. TRANT

SECRETARY BOARD OF TRADE,

REGINA, ASSA.

P. M^oARA, JR. REGINA.
Handles

FARM and TOWN LANDS

of all description, at prices ranging from \$5 to \$30 per acre. Write him as to your wants.

C. J. McCUSKER,

Implement Dealer. Full line of

American and Canadian Implements, Thresher Rigs. FARM LANDS FOR SALE.
Hamilton St., Regina.

HEAD OFFICE: REGINA.

BRANCH YARDS: Lumsden, Balgonie, Condee, McLean, Craven and Rouleau.

THE REGINA LUMBER & SUPPLY CO., Ltd.

Dealers in all kinds of

LUMBER & BUILDING MATERIAL.

Burton Bros., REGINA'S LEADING Tailors

DIRECT IMPORTERS OF FINE WOOLENS.

Established 1889. Satisfaction Guaranteed

J. R. MARSHALL

FULL LINE OF

Implements, Wagons and Carriages
REGINA, - N.-W.T.

McCALLUM, HILL & CO.

Settlers located on Wild Lands, Improved Farms, Ranches and Free Homesteads, anywhere in Western Canada.

Write for information. Regina, N.-W.T.
P. O. BOX 458.

The Edmonton Country—Continued.

For fuel the Edmonton district has more coal available than any other coal area in the known world. Of course, it is not found everywhere, but it is found in so many places as to give good ground for the opinion that it actually underlies the whole district. The prevailing cost at the mouth of the pit is \$1 per ton, and delivered in the town of Edmonton is \$3 a ton. Timber sawn at local mills is sold retail at about \$18 per thousand feet.

Barley is a standard crop of the district, the yield is excellent, the crop assured and the quality first-class. Nothing need be said of potatoes, turnips, beets, carrots, onions, cabbages, celery, etc., except that they flourish exceedingly and furnish cheap and good food for man and beast. Of wheat itself, the Red Fife is the preferred variety, and the average yield is shown in the reports of the Northwest Government to be the highest in the Territories, and the proportion of No. 1 quality is equal to that in any part of the Wheat Belt.

Of grasses, timothy grows well and is a standard crop. Red, white and Alsike clover have been produced in abundance, and grow well for one crop, but kill out the following winter. The principal wild grasses are red-top and blue-joint, but peavine also thrives.

An evidence of the favorable nature of the climate is the abundance of wild fruits, strawberries, raspberries, chokecherries, black currants, blueberries, bush cranberries and many others. Cultivated small fruits grow without the slightest difficulty. Of these, red and white currants are noticeably very prolific. The hardy varieties of standard apples, as well as cherries and plums, will thrive.

In mixed farming, hogs and cattle play an important and remunerative part, while poultry also does well. In comparison of products, we find here the same condition as in Ontario and Quebec.

The man with small capital and plenty of push, pluck and perseverance will find that he may become independent and acquire considerable wealth as a result of a few years' hard labor.

The town of Edmonton is undoubtedly the chief commercial center of the western portion of the Wheat Belt. It is the principal town on the Saskatchewan River, and is the northerly terminus of the railway system of the continent. It is the wholesale center and supply point for the Mackenzie River basin, a region for nearly two thousand miles from north to south, by eight hundred from east to west. Speaking of magni-

T. A. STEPHEN,
Real Estate and
Financial Agent.

Carefully selected farming lands in the Vermilion and other districts. Improved farms and city properties.

Correspondence Solicited.
EDMONTON, N.-W.T.

THE SIGN OF THE BIG BOOK

For the Largest and Best Assorted Stock of
Books, Stationery,
Office Supplies,
School Supplies,
Wall Papers,
Law Stationery.

Write to or call on
H. W. B. DOUGLAS,
EDMONTON, ALBERTA.
Correspondence Solicited.

THE Canadian Bank of Commerce.

HEAD OFFICE—TORONTO.
Paid-up Capital, \$8,000,000. Rest, \$2,500,000.
HON. GEO. A. COX, President. B. E. WALKER, General Manager.

EDMONTON BRANCH.
A general banking business transacted. Special attention given to the accounts of farmers and ranchers.
T. M. TURNBULL, Manager.

NATIONAL TRUST COMPANY,
LIMITED.

Toronto. Montreal. Winnipeg. Edmonton.
Capital Paid-up, \$1,000,000.
Reserve, 300,000.

MONEY TO LOAN on improved farm property at lowest current rates of interest.
AUTHORIZED TO ACT as Administrator, Executor, Trustee and Guardian; Liquidator, Assignee and Financial Agent. Solicitors bringing estates to the Company are retained in the professional care thereof.

ALBERTA OFFICES:
OPPOSITE POST OFFICE, EDMONTON.
A. M. STEWART,
Secretary Edmonton Branch.

Read The Edmonton Post.

Edmonton Music Co. Pianos and Organs, Singer and Eldredge B. Sewing Machines, Musical Instruments of all kinds, Stationery, etc.
PICARD & GUENETTE.

A. A. MORROW,
DISPENSING CHEMIST,
EDMONTON, ALBERTA.

Well Dressed. That's what they say if you get your clothes made at **Wagner & Co.'s,** EDMONTON, ALBERTA.

W. H. CLARK & CO.

Manufacturers and Dealers in
Sash and Doors, Shingles,
Mouldings, Lumber,
Turned Work. Lime.

1st STREET WEST,
EDMONTON, ALBERTA

J. H. MORRIS & CO.
The Leading GENERAL MERCHANTS in EDMONTON.

Wholesale and retail. Grocery jobbing a specialty. Intending settlers will be cheerfully supplied with any information about the town or district.

WE FIT your body, mind and pocket, at the
"Cristall" Palace Clothing
Emporium.
A. Cristall, Cor. McDougall and Jasper Ave.,
Edmonton, Alberta.

The Canada Permanent and Western
Canada Mortgage Corporation.

Head offices, Toronto. J. Herbert Mason, Managing Director. Branch office, Imperial Bank Block, Edmonton. **Money to lend** on improved farm and town property, at lowest current rates of interest. Mortgages and Debentures purchased. **C. W. Strathy, Manager** Edmonton Branch.

tude, it may be safely stated that no other town or city in America is the undisputed trade center of such a large territory, and no other town in the Wheat Belt has such a large area of unbroken fertility immediately surrounding it. It is the commercial, industrial, educational, judicial and official center of Northern Alberta in the mere infancy of the sphere of commercial importance that ere long will burst before the world.

Situated as it is, on the trans-continental route of the Canadian Northern Railway, it will be beyond question a most important place on that line between Winnipeg and the Pacific Coast. Although the importance of the town of Edmonton, as relating to the Northwest, dates back to the beginning of the last century, the town has not been widely known until the last few years. The result is that to-day Edmonton is the scene of much bustle. The hotels are filled daily with land-seekers and settlers who have heard of the wonderful grain fields and have decided to settle in the Great Wheat Belt. Town lots have advanced two-hundredfold in price, and it will not be long before the central portion of the town boasts of warehouses and wholesale branches of eastern establishments, who find it necessary to open branches to handle the increasing trade.

Then the enormous deposits of coal and the abundance of water and power facilities will attract manufacturers who can see a good thing in following up the invasion of a new country by a progressive people.

One need not hesitate to predict that within less than a quarter century the town of Edmonton and the country surrounding it will be one of the most thickly settled districts in Western Canada.

P. E. BUTCHART. W. T. HENRY.
The Great West Land Company

LARGE LIST OF WILD AND IMPROVED Lands from \$5 to \$20 per acre. No charge to show lands within a reasonable distance of the city. Prompt and honorable dealing. Write for information. REFERENCE: Merchants Bank of Canada.

BOX 168,
EDMONTON, ALBERTA.

McDougall & Secord,

Wholesale and Retail
GENERAL MERCHANTS.

Edmonton, N.-W. T., Canada

When in Edmonton
STAY AT
THE WINDSOR

Laurencelle & Corriveau, Proprietors.

There is a Tent and Mattress Factory at

TENTS

Edmonton, Alberta. Call on them.

ROSS & PERRY, 'Phone 40
LIVERY, FEED, SALE STABLE,
FRASER AVENUE, EDMONTON.
Open day and night. Special attention offered commercial men and land seekers. Guides supplied.

FARM LANDS FOR SALE.

We have 50,000 acres of first-class improved and unimproved farm lands for sale in the famous Saskatchewan Valley, around Edmonton, Fort Saskatchewan, Beaver Lake, Vermilion, Birch Lake, Lake St. Ann, Egg Lake, and other parts of Northern Alberta. For price lists, maps and other information, apply to

CRAFTS & LEE,
Dealers in Farm and City Real Estate,
EDMONTON, ALBERTA.

Revellion Freres,

Wholesale and Retail
General Merchant,
EDMONTON, ALBERTA

WILLIAMSON BROS.,
Dealers in all kinds of Fresh and Cured Meats, Poultry and Vegetables in Season. Pork Sausage a specialty. Highest cash price paid for hogs and stock at all times.
EDMONTON, ALBERTA.

AYLWIN & WILLIAMS,
Real Estate,

EDMONTON, ALBERTA.

Large list of improved and unimproved properties in Edmonton and adjacent districts.

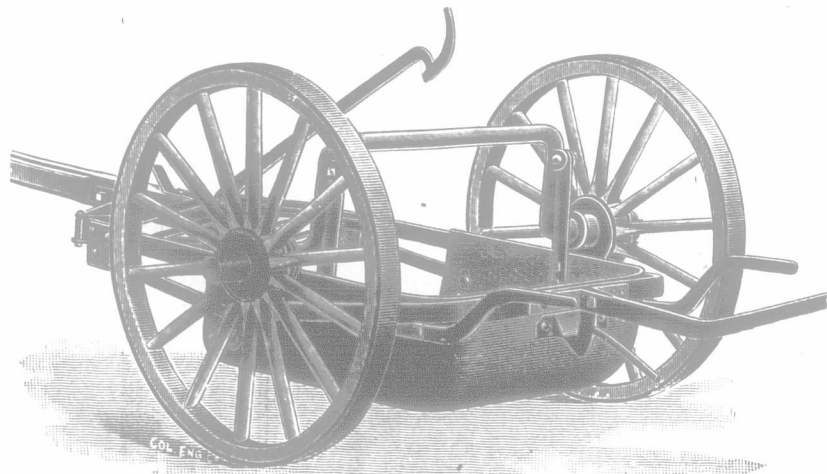
Low Prices. Small Payments. Easy Terms
Write us. You will find us prompt and ready to give any information regarding the country

Municipalities! Contractors! Dealers!

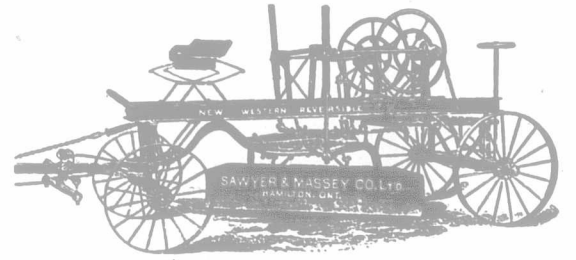
Make No Mistake in Any of These Goods.



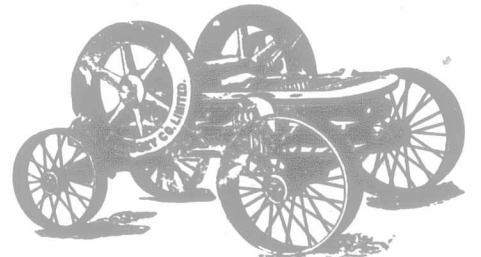
"S. & M." Steel Mould for making Concrete Tile.



Celebrated K. & J. "Columbus" Pressed Bowl Steel Wheelers, Oil-tempered Bowls, Sand-proof Hubs. Sizes, 2 and 3.



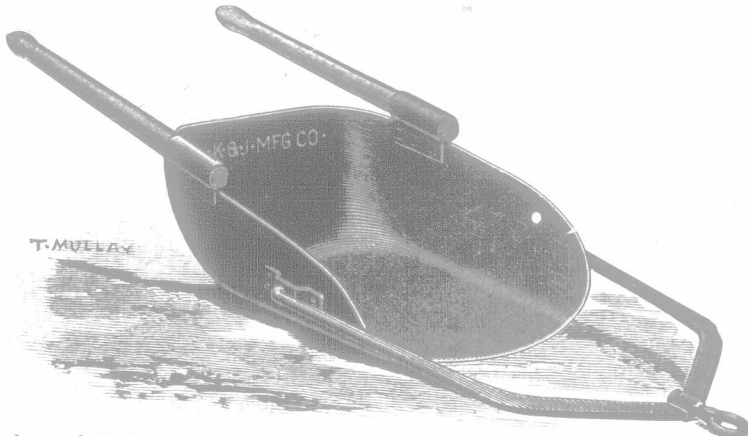
"S. & M." Steel Reversible Road Grader.



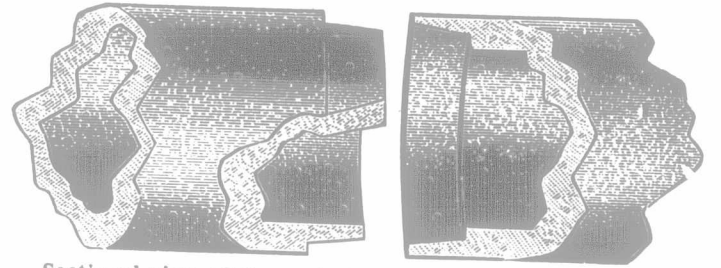
"S. & M." Rock Crusher.



"S. & M." Road Plow.



Celebrated K. & J. "Columbus" Pressed Bowl Steel Drags. Sizes, 1, 2 and 3.



Sectional view of Concrete Tile as manufactured by our Steel Moulds, showing telescopic joint.

WRITE US
For particulars and prices of these and our other lines of Road-making Machinery.

SAWYER & MASSEY CO.,

HAMILTON, ONTARIO, CANADA. LIMITED.

THE GENUINE AND TRUE STOCK
OF THIS VALUABLE VARIETY
CAN ONLY BE HAD
FROM US

SUGAR BEET



"Queen of Denmark."

The greatest milk producer, the richest butter producer, the quickest hog fattener
IN THE WORLD.

Has produced 3,443 lbs. more Sugar to the acre than the best Mangel grown.

Used by the world-renowned butter-makers of Denmark.

The production of Sugar Beet is a subject which should interest every Farmer anxious to improve his condition. It is of special and almost vital importance to the Canadian Farmer. It would not only open to him a new field for the production of a profitable crop, but the proper culture of the Sugar Beet greatly increases the productive-ness and enhances the value of his land. It is the history of Sugar Beet culture in France and other countries, that lands upon which Sugar Beets have been properly grown and cultivated will yield double the amount of grain over those lands on which they have not been grown.

Every Farmer should therefore give attention to this subject and try small areas of Sugar Beet. You will have made a good deal in ascertaining for yourself the great value of Sugar Beet as a food for stock.

We have three good varieties to offer you, but we would call your special attention to the "Queen of Denmark" as standing at the head of the list of all known varieties, having tested eleven varieties on our Trial Grounds the past season.

The variety used by the world-renowned butter-makers of Denmark. This variety has produced the enormous quantity of 10,192 lbs. of sugar to the acre to 6,719 lbs. from one of the best mangels, showing its grand feeding qualities. Can be grown much closer than Mangels, rows 18 inches apart and 9 inches between the roots being ample, giving almost as large a weight, but 50 per cent. more sugar to the acre than the long red Mangel. Practically free from prejudicial nitrates, while with common mangels you feed more nitrates than are considered healthy. Our supply of seed is direct from Denmark. Having had it under test for the past two seasons, we know that there is no better shaped, better colored nor purer stock grown. Lb., 25c.; postpaid, 30c. 4 lbs. (enough for 1 acre), 80c.; postpaid, \$1.00. Cash with order.

We publish 5 catalogues: "Farm Seeds," "Flower and Vegetable Seeds," "Bee Supplies," "Dairy Supplies," "Poultry Supplies." Which do you want? All free.

Address all orders to

DARCH & HUNTER, SEEDSMEN TO THE CANADIAN PEOPLE, London, Ont.



Whatever reduces the drudgery of house work is worth having. The

New Century

Ball Bearing Washer does away with all hand rubbing. You do not require to touch the clothes to thoroughly clean them and a tub-ful can be done in five minutes.

It is needed in every home and you cannot afford not to have it.

If your dealer has it you should see it at once. If not, write us and we will be glad to send you a descriptive booklet.

The Dowsell Mfg. Co. Ltd., Hamilton, Ont.

A LOST COW.

That can never happen where the cows wear our patented

Swiss Cow Bells

Made from finest quality of Swiss Bell Metal, they are light but strong and lasting. Musical in tone. They add to the appearance of herd besides making them tame and tractable. Strap with each. Sold direct in sets or singly to introduce. Made in 8 sizes. Circulars on Cow, Sheep and Turkey Bells Free. **Bevin Bros. Mfg. Co., East Hampton, Conn.**



80 RODS A DAY
This handy little machine will weave 60 to 80 rods of wire fence in a day. Works so easy a boy can run it. Weaves up rights on any size of smooth or barb wire. Best new fence machine made. Can make meshes any size you want to turn little chicks, horses, cattle, etc.
THE McCLOSKEY WIRE FENCE CO. LTD.,
BOX A WINDSOR ONT

Calgary City and District.
THE CITY.

The city of Calgary has a population of 4,162, according to the last census. It is located on the main line of the C. P. R., 840 miles west of Winnipeg, near the center of "Sunny Alberta," and in a district known as the Rencher's Paradise. The city is a terminal point of the Macleod branch of the C. P. R. and of the C. & E. railway. Among the manufacturing establishments of the city are a creamery, a brewery, cigar factory, sash and door factory, carriage factory, and a tent and mattress factory. A number of wholesale houses, in addition to the usual business concerns in a place of this size, are doing a large business, and the heads of the respective firms are very sanguine of a brilliant future for their progressive city, which is replete with an electric light and power plant, city water-works and all the up-to-date facilities of a Western city.

The Inter-Western Pacific Exhibition Company has its headquarters here, and will hold its annual exhibition in July of the present year.

WHAT SOME OF CALGARY'S BUSINESS MEN SAY:

"Prices of cattle, sheep and horses for the past year in Alberta have been exceptionally good, and land has doubled in price."—Mr. W. R. Hull, dealer in cattle and coal, etc.

Mr. A. C. Sparrow, an early settler of twenty years' standing, is convinced that never in the history of Calgary were prospects so bright as they are at the present. Mr. Sparrow does a large business in the stock exchange and real estate line, and is an acknowledged authority on live stock.

"Calgary is bound to go ahead, and is fast becoming a very important commercial center. If I did not believe this

I would not have resigned as Deputy Commissioner of Agriculture to accept my present position."—Mr. C. W. Peterson, Secretary Calgary Board of Trade.

"The future of the West is now assured, and we in Calgary are very fortunate to be located in the best ranching and mixed-farming zone of the world."—Mr. Hutchings, Manager of the Great West Saddlery Co.

"Calgary has always been a good business center, and is to-day in the best condition of her history, from a business standpoint."—T. H. Doll, jeweler.

Mr. J. G. Edgar, Manager of the Hudson's Bay Co.'s stores, thinks, with the great many advantages Calgary already has, the prospects are very bright for the future of this city. A stranger seeing the great number of settlers coming to this district would naturally consider the land would soon be all taken up, but there are still very large tracts of land suitable for farming or ranching.

Calgary District.

Not a few of the readers of the "Advocate" are interested in the ranching districts of Western Canada, and it is for the benefit of such that we publish the following description of one of the most promising ranch localities in Canada, known as the "Calgary Country." The plains surrounding the thriving little town of Calgary have been especially favored by nature in more ways than one. The whole district is watered by many beautiful timber-fringed rivers—clear, swift-running streams—fresh from the snow-capped Rockies, which form an enchanting background to the scenery of the district. The foothills and prairie surrounding the city of Calgary are covered with a profuse growth of rich and nutritive grasses, on which cattle feed and fatten the year round, and which have made Alberta beef famous the world over.

Most of the land in the district within a radius of fifty miles of the city is capable of producing wheat, oats, barley, rye, cultivated grasses, potatoes and other farm and garden produce in large quantities and of excellent quality.

The facilities in the neighborhood of Calgary for mixed farming are such as to assure to the industrious man, not only a good living for himself and his family, but the certainty of saving and adding to his possessions year by year, until he becomes comparatively wealthy. It proves so year after year with settlers who a few years ago came West and settled here with scarcely more than their railway fare. It is the country for the man with the small capital and who is endowed with an indomitable spirit of perseverance.

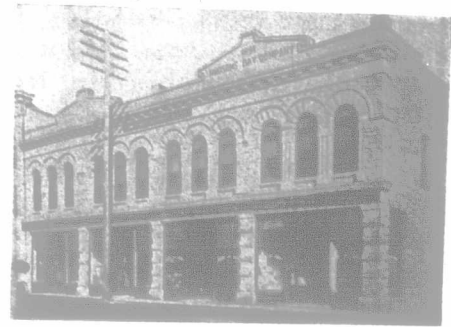
Dairying alone offers a means of paying all the expenses of living and operating the farm. The raising of poultry offers an easy source of profit, the city market for this produce having at present to be supplied from Ontario and Manitoba. The price of poultry to the consumer in Calgary is from 15 to 20 cents per lb.; eggs, 15 to 25 cents in summer and from 30 to 40 cents in winter. Pork is also a product of farming which pays well in this district.

It is, however, as a stock-raising district that Calgary pre-eminently shines. While the industrious farmer is paying expenses out of the smaller products, his band of cattle goes on increasing in size and numbers with little or no attention from the owner.

Speaking of the magnificence of the climate, it may be safely said (for the meteorological records prove it) that there is no place in the Western Hemisphere that enjoys more bright sunshine the year round than does Central and Southern Alberta. The autumn weather of Calgary is perfect. The air is chilly at night; the sun rises in matchless splendor; the blue vault of heaven is unmarked with even the shadow of a cloud; the atmosphere is so clear and bright that the peaks of the Rockies, seventy miles distant, are seen clear-cut above the horizon. The atmosphere the year round is bright and invigorating, thrilling every pulsation of feeling, sharpening the intellect and infusing ruddy energy into every part of the body. No words can do justice to the splendor of Alberta's climate. Day after day, week after week, this delightful fall weather is unbroken, warm, joyous, delicious, some-

times clear up to Christmastide. When winter sets in, the siege is usually short, sharp and decisive. While the temperature occasionally goes down considerably below zero, little or no discomfort is felt if one is suitably clothed. The summer weather is seldom or never uncomfortably hot, and the warmth of mid-day is always counterbalanced by the delightfully cool and refreshing nights, in which sleep is a pleasure.

Reader, consider the many advantages placed by the hand of nature, as well as the accommodation afforded at the hand of man, when considering a new home.



Hudson's Bay Company's Stores, Calgary.

Newcomers

to Alberta should visit our stores. We sell, wholesale and retail, everything to eat, drink, and wear. Farmers' and ranchers' trade solicited.

Best Goods. Lowest Prices.

Hudson's Bay Co.,
CALGARY.

MASSEY-HARRIS CO., Ltd.

Manufacturers of

FARM IMPLEMENTS

FACTORIES:

TORONTO AND BRANTFORD.

Head office for

ALBERTA BRANCH,

CALGARY.

W. R. HULL & CO.

LIVE STOCK DEALERS.

Importers and General Jobbers.

Agents for

The H. W. McNeill Co.'s Anthracite Coal.

The Gallagher-Hull Meat & Packing Co.

CALGARY, ALBERTA.

FOR SALE:

The Best Ranch Farm in Alberta

Within 20 miles of Calgary, comprising 3,000 acres. Would make an ideal thoroughbred stock ranch. Soil rich dark loam, all well fenced; unlimited supply of running water winter and summer. First-class ranch house, well finished. Frame stable for 20 horses; large granary, with windmill and grain crusher; implement shed and first-class outfit of farm implements, wagons, sleighs, harness, etc.; cattle shed 450 x 30 ft.; cattle shed 300 x 20 ft. Water running in troughs through corrals never freezes. 200 acres seeded to Bromo grass and timothy; 150 acres grain crop, in addition to which 1,000 tons of natural hay can be cut. **Going at a BARGAIN.**

Westbrooke Ranch

20 miles north of Cochrane, 35 north west of Calgary. 180 acres freehold, 1,600 leased; well fenced and cross-fenced, 100 acres to Bromo grass and timothy, 60 under crop; good trout stream, giving plenty of water and fishing; good house on stone foundation and cellar; sink and pump in kitchen. Extensive stables and other buildings, machinery, etc. Irrigation ditch belonging to property. At \$7,500. Further particulars about country and other bargains, write **A. C. SPARROW,** Live Stock Exchange, Calgary, Alta.

ALWAYS GROW

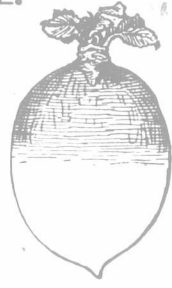
RENNIE'S - The best seed Canada produces.

IMPROVED ELEPHANT SWEDE.

A specially selected strain of this popular Crimson Top Swede. Vastly superior to the ordinary stocks usually sold under the name of Elephant. A heavy cropper and extra fine quality. 1/4 lb. 10c., 1/2 lb. 15c.

Pound 25c.
4 Pounds 80c.

Add 5c. per pound if wanted by mail.

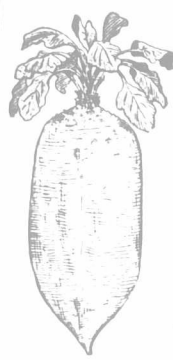


DANISH SUGAR BEET.

The greatest milk producing root the world has ever known. Yields immense crops and roots always nice and clean. Pink and white color, growing considerably above ground. A profitable crop to grow. 1/4 lb. 10c., 1/2 lb. 20c.

Pound 30c.
4 Pounds \$1.00.

Add 5c. per pound if wanted by mail.

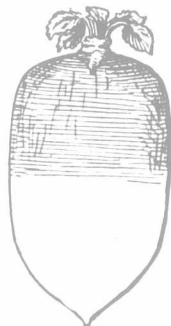


KANGAROO SWEDE.

The grandest of all Swedes. Keeps longer than any other sort and produces heavy crops everywhere. Very hardy. Similar in size and growth to the Elephant. Color bronze green. This is the most popular Swede in cultivation. Particularly adapted to districts where the land lies exposed. 1/2 lb. 12c., 1 lb. 23c.

Pound 30c.
4 Pounds \$1.00.

Add 5c. per pound if wanted by mail.



ANY 10 PACKETS 25c.

TAKE YOUR CHOICE. BY MAIL POSTPAID.

VEGETABLES.

1. Beans, Golden Wax.
2. Beet, Eclipse round.
3. Beet, Flat Egyptian.
4. Beet, Long Smooth.
5. Cabbage, Winning-stall.
6. Cabbage, Fottlers.
7. Carrot, Half Long.
8. Carrot, Gem or Ox-hl.
9. Cauliflower, Early Paris.
10. Celery, Self Blanching.
11. Corn, Early Minnesota.
12. Corn, Evergreen.
13. Cucumber, Pickling.
14. Cucumber, Lg Green.

15. Cucumber, White Spine.

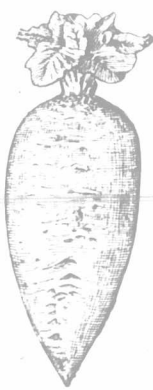
16. Herbs, Sage.
17. Herbs, Savory.
18. Herbs, Marjoram.
19. Lettuce, Nonpareil.
20. Lettuce, Denver Mkt.
21. Musk Melon, Early.
22. Water Melon, Early.
23. Onion, Latze Red.
24. Onion, Y.T.W. Danvers.
25. Onion, Silverskin.
26. Parsley, Curled.
27. Parsnip, Hollow Crown.
28. Peas, First and Best.
29. Peas, Little Gem.
30. Pepper, Ruby King.

31. Pumpkin, Large Cheese.

32. Radish, Rosy Gem.
33. Radish, Breakfast.
34. Radish, Long Pearl.
35. Salsify, Mammoth.
36. Squash, Marrow.
37. Squash, Hubbard.
38. Turnip, Red Top Globe.
39. Tomato, Champion.
40. Tomato, Extra Early.

41. Climbers, Mixed.

42. Everlastings, Mixed.
43. Mignonette, Sweet.
44. Morning Glory, Mixed.
45. Nasturtium, Tall.
46. Nasturtium, Dwarf.
47. Pansy, Mixed.
48. Petunias, Mixed.
49. Pink, Dianthus, Mixed.
50. Phlox Drummondii.
51. Sweet Peas, Mixed.
52. Verbena, Mixed.
53. Wild Garden, Flowers.
54. Zinnia, Mixed.



GIANT SUGAR MANGEL.

Unquestionably the most Profitable Root for Stock Feeding. — Outyielding the famous Mammoth Red Mangel in weight per acre. Valuable either for producing milk or as a flesh former. Handsome, perfect shaped roots of pinkish white color, growing high out of ground. Easy to harvest. The richest and sweetest of all roots.

Pound 30c.
5 Pounds \$1.40.

Add 5c. per pound if wanted by mail.

SOLD BY LEADING MERCHANTS IN SEALED PACKAGES - NEVER IN BULK.
OR DIRECT FROM **WM. RENNIE, TORONTO,** ADELAIDE AND JARVIS STREETS.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

All the world's a stage. Elgin Watches are the prompters.

Elgin Watches

are the world's standard for pocket time-pieces. Sold by every jeweler in the land; guaranteed by the world's greatest watch works. Booklet free.

ELGIN NATIONAL WATCH CO.
ELGIN, ILLINOIS.

GOSSIP.

At an auction sale, on April 3rd, at Woodstock, N. B., of Shorthorns, contributed by breeders in Ontario County, Ont., Mr. Geo. Jackson, Port Perry, acting as auctioneer, 14 head sold for an average of \$109; the highest price being \$156 for the young bull, Indian Duke, calved Oct., 1901, and contributed by Mr. Chas. Calder, Brooklyn.

IMPORTANT SALE OF JERSEY CATTLE.

Attention is directed to the advertisement of Messrs. Case & Walker, of Rushville, Indiana, appearing on another page of this paper. This firm, breeders and importers of Jersey cattle, will sell at public auction, on Tuesday and Wednesday, April 28th and 29th, the entire herd of Jerseys on their Jersey Isle Stock Farm, consisting of over one hundred head. Every animal to be sold was born on the Island of Jersey, the native home of this breed, except the young stock dropped last year on the farm by cows imported during 1900 and 1901. There has never been on this farm a cow of any description except imported Jerseys and those out of imported parents; and since the original stock has all been subjected to the tuberculin test, and there has been no chance for disease to enter the herd from outside sources, the cattle are in perfect health.

It is said breeders and dairymen will be pleased with the type of cows that are kept here. They will find them almost invariably with perfect udders, and teats of good size, the cows of superior finish and strong constitution, profitable milkers—and in many cases extraordinary ones—some of the cows milking over 56 pounds in one day, and the Babcock shows about 6 per cent. fat, as a rule. Cows are deep bodied, of great digestive capacity, always ready for their food, and with good backs and hips, their ages ranging from three to ten years.

From these cows there is an array of heifers and young bulls that will prove a valuable reinforcement for the herds into which they go. Their breeding is of the very highest character, the catalogue showing that every animal in the herd (with two or three exceptions) is descended from that greatest of all Jersey Island sires, Golden Lad, and that they carry from 12½ to 50 per cent. of his blood. His double grandson, Golden Fern's Lad (who sired the famous Flying Fox, that sold for \$7,500 at auction last year), has a son, four daughters and upward of forty grandsons and granddaughters in the herd. There are four daughters of Golden Lad, and several grandsons and granddaughters with 50 per cent. of his blood.

We are informed, on high authority, that this sale is worthy the patronage, every way, of those progressive dairymen, and breeders of Jerseys, who keep close to the time of the year, and are guided by the light of the Jersey cow, and at the same time, are of the family who believe that the best way to build up the reputation of a breed.

EGGS For hat hing, from choicest "utilly" and "fancy" strains of Brown Leghorns, Black Minorcas, Barred Rocks and White Wyandottes. Heavy laying strains. Circular, giving particulars, free. o JOHN B. PETTIT, Fruitland, Ont.

Eggs for Hatching—Barred Rocks exclusively—Two pens of Selected females, headed by an imported bird of Hawkins' Royal B'ne strain, and one of Bradley Bros.' show birds. \$1 per setting of 13. A. E. SHERRINGTON, Box 100, Walkerton, Ont.

EGGS from Brahmas, Cochins, Langshans, Rocks, Wyandottes, Leghorns, Minorcas, Spanish Dorkings, Houdans, Hamburgs, Polands, Games, ducks. \$1 per setting. R. J. LAURIE, Wolverton.

Eggs for Hatching BARRED ROCKS a specialty. From a grand pen of 30 hens, famous for their large size, marvellous laying qualities and splendid color, mated to a large, robust, National-strain cockerel. \$1 per set of 13. Order early. CLAUDE BLAKE, Poplar Vale Poultry Yards, Elgin County, LYONS, ONT.

EGGS FOR HATCHING. Barred Rocks only, from two pens. Choice pullets and excellent cockerels. Eggs and birds sold in 1902 gave splendid satisfaction. Per 13, \$1.50, or 40 for \$3.50. John Campbell, Fairview Farm, Woodville, Ont.

EGGS FOR HATCHING. S. C. Brown Leghorns exclusively. Most prolific layers. This strain wins highest honors at New York, Boston and Philadelphia shows. \$2 per 15, well packed. W. O. BURGESS, Queenston Ont.

EGGS FOR HATCHING—White Wyandotte, Buff Orpington, Houdan and Pekin duck. \$1.25 per setting. C. W. BEAVER, Pinegrove, Prescott, Ont.

Eggs for Hatching From three grand pens of Felch's Barred Rocks. \$1.50 per setting of 15. A. T. GILBERT, Elmvalle, Ont.

FOREST CITY POULTRY YARDS 33 Brisbane St., London, Ont. WM. PULVER, Prop., breeder of pure-bred Black Minorcas, Barred Rocks, S. and R. C. Brown Leghorns and S. C. White Leghorns. Orders taken for eggs, \$1.25 per 15 eggs. Stock first-class and prices reasonable.

Eggs for Hatching We offer eggs from pure Barred Plymouth Rock pens at \$1 per 15, \$2 per 45, \$1 per 100. Pekin Duck eggs, \$1.50 per 12. Free circular. H. GEE & SONS, Fisherville, Ont.



The Hardie Potato Sprayer

Is a strong, simple and practical attachment which can be quickly and easily connected to any spray pump. Fits on the back of an ordinary wagon or cart. Sprays 4 rows at a time, covers the entire vine with a fine fog-like spray—and one man can spray 20 acres in a day. Does exactly the same work as a \$75 machine and only costs \$7.00. Write for our free illustrated catalogue giving full information about our complete line of Spraying Machines.

Hardie Spray Pump Mfg. Co., Windsor, Ontario.

Death Rides Through Bug-land on an Aylmer Sprayer.

This is the Dirge of the Bugs: NO more gladness, nought but sadness. Bitter tears fill Bug-land now. Every day ascends our prayer: Take away the Aylmer Sprayer. Take it quick, we care not how.

THE LESS-ON WE TEACH.

AYLMER SPRAYERS are clog-less. Thorough agitation in the barrel before spraying, and always at point of intake while in use. Sag-less; no soft packing; mechanically-perfect spring rings hold all the pressure. Delay-less, superlatively simple, well made; not a purpose-less particle in the whole outfit.

Write now. **THE AYLMER IRON WORKS,** AYLMER, ONTARIO.

GOSSIP.

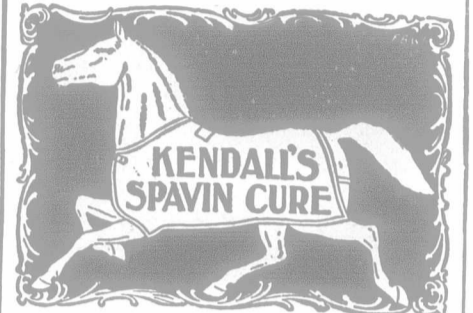
In another column of this issue appears an advertisement from Mr. S. V. Bray, of Wolseley. Mr. Bray is an old settler, having been in the district for twenty years. He has a 500-acre farm adjoining the town, 320 acres of which is out on shares. Last year he sold \$2,100.00 of wheat off 133 acres, and took a large crop off 60 acres, which he has seeded to brome grass. The soil is clay loam with clay subsoil, an excellent soil for wheat-growing. Anyone desirous of learning more about the district, of Wolseley, or of buying a good farm at a low figure, would do well to address S. V. Bray, lumber dealer and general merchant, Wolseley, Assa.

Two miles east of Dutton, on the M. C. and L. E. & D. R. railways, lies Green Oak Stock Farm, the property of John McFarlane, breeder of Shorthorn cattle and Oxford Down sheep. It can be readily seen that the Shorthorns kept on this well-appointed farm, some of which are imported and others home-bred, are full of quality. Heading this herd, and also that of W. A. Galbraith, is the imported bull, Royal Prince, a handsome, smooth fellow of dark red color, and quite worthy of his sire, the widely-known bull, Golden Fame 76786. His dam is Mattie, Vol. 47, p. 382, which, when three years old, weighed 1,700 lbs., and took first prize at Guelph in 1902. Among the imported cows is Lady Bess, a red, and an exceptionally fine cow of the Missie family, sired by Abbotsford 2nd (69838), which now heads the herd of Duthie, Collynie, and which took championship at Aberdeen and second at Royal Show in England in 1902. This cow has by her side a bull calf, Abbotsford 3rd, by Evening Star. Also Tidy Lass, a worthy representative of the Alexandrina family, sired by Morello, Vol. 48. This imported heifer is in calf to Prince of Archers 72260. The Flora family has a model representative in the beautiful deep roan cow, Kate, dam Flora, by Cancroper Boy. Then there is Bernice, by Sodus, of Barrington family, which is an exceptionally good milker, of Bakewell breeding. Also Dido, a large, well-bred Bakewell cow, which comes of Darlington family. There is also Zada, a large, deep and well-proportioned cow of the up-to-date kind. Also, Rosy B., a typical Scotch-bred heifer, successful as a prizewinner, sire Blue Ribbon (imp.), dam Jeanette, by Royal George (imp.). There are in the herd ten young heifers, reds and roans, upwards of six months old, from such sires as Tecumseh Chief, Imperial 2nd, Blue Ribbon (imp.), Bowhill Heir. Some of the heifers are in calf to Royal Prince. There is also Billie of Dutton, nine months old, and Blue Ribbon 2nd, 15 months, as advertised in another column, for sale at reasonable prices. In sheep, there are some nice ewes, sired by Byron 5th and Kempford Hero 8th, both imported rams.

THE HORSE MARKET

Demands Sound Horses Only.

Lame horses sell at less than half their actual value and are neither desirable for use or sale. The remedy is easy. A few bottles of



will work a permanent cure for Spavins, Ringbones, Splints, Curbs, etc., and a form of Lameness. It cures thousands of cases annually. Such endorsements as the one following are a guarantee of merit.

Cured two Bone Spavins of Ten Years' Standing.

Earlville, N.Y., Mar. 11, 1902.
Dr. B. J. Kendall Co., Gentlemen:—Some years ago I used your Kendall's Spavin Cure on a horse that had two Bone Spavins, and it removed them entirely. These Spavins had been on him from birth, and were of ten years' standing. I now have a case of a mare that was injured by falling through a bridge, and am going to give her complete treatment with your Spavin Cure. Please send me a copy of your "Treatise on the Horse and its Diseases." Yours very truly, CLARK G. PORT.

Price \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the book free, or address

DR. B. J. KENDALL CO., Enosburg Falls, Vt.

DOLLARS

Coarse grain and screenings will net \$1 a bush if turned into chicken flesh. Poultry is the surest crop. The demand is unlimited.



The Chatham Incubator

will pay for itself in one hatch. It is built to last a lifetime, and will hatch a dozen broods a year. The prices are right. In the guarantee we lead where no other maker dares to follow. Write for catalogue and prices.

The M. CAMPBELL FANNING MILL CO., CHATHAM, ONT.

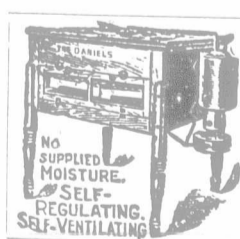
EGGS! EGGS! EGGS! Buff Orpington and Buff Wyandotte settings, \$2.00; White Rocks, Brown Leghorns, \$1.25. Big, beautiful Black Cochins cockerel, \$5. A. J. GEORGE, 52 Clarence street, London, Ont.

BARRED ROCK EGGS

From a pen of 40 Barred Rock hens, selected for their good laying qualities; nice barring, and are all large, strong boned, healthy birds, having the free run of orchard, and mated with 2 choice cockerels, extra well barred, and of a fine type. \$1 per setting of 13, or \$2 for 3 settings.

W. C. SHEARER, BRIGHT, ONT.

The Daniels Incubators



Are the latest and most modern invention for artificial hatching of turkeys, chickens and ducks. Do not forget, we guarantee the Daniels incubators to be satisfactory to the purchaser. Our brooders are perfect; at least our customers say so.

We carry a full line of poultry supplies. Our new catalogue is out, and is free for the asking. C. J. DANIELS, 196 to 200 TORONTO.

Poultry and Eggs Wanted

CHICKENS } Empty crates forwarded on application.
DUCKS }
TURKEYS } Highest market prices paid.
GEESE } Correspondence solicited.

Toronto Poultry and Produce Co. OFFICE: 740 YONGE ST., TORONTO.

"A FREE SAMPLE PACKET"

of Delicious "SALADA" Ceylon Tea (Black, Mixed or Natural Green) will be sent to any person filling in this coupon and sending it to us with a two-cent stamp for postage.

(Write plainly and mention Black, Mixed or Natural Green.)

Name.....

Address.....

"Farmer's Advocate."

Address "SALADA" TEA CO., TORONTO.

Concrete Piggery and Henhouse

OF MR. FRANK LOCKWOOD, DELAWARE, BUILT WITH

THOROLD CEMENT



THE HENHOUSE.

Wall, from foundation to peak, built with THOROLD CEMENT.

THE PIGGERY.

Basement walls built with THOROLD CEMENT.

READ WHAT MR. LOCKWOOD SAYS:

ESTATE OF JOHN BATTLE, DELAWARE, ONT., March 16, 1900.

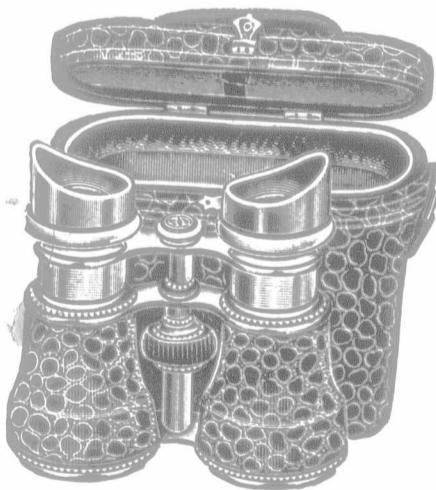
Manufacturers of Thorold Cement, Thorold Ont. DEAR SIRS,—I used your Thorold Cement in my building. It gave the best of satisfaction, and I recommend it to all who intend building. Both buildings are piggeries. The largest one is 20x40, 8 ft. high, 12-in. wall next the bank, and 10-in. on other side and both ends. I do not know just how much material I used. Have forgotten. But I used 5 to 1 of Cement. Could not say just the time I was building it. Had five men, and six part of the time. The small building is 16x20. Cement walls 11 ft. high at the eaves and extend to gables, walls 9 in. thick. The top story is a henhouse. Took five men about 5 1/2 days to build this one. There are Cement floors in both, and Cement troughs also. The top story of the largest building is a granary for 20 feet and machinery the other half. I did not keep count of how much gravel I used, as the buildings are built right on the side of the gravel hill. I supply the township with gravel.

Yours respectfully,

FRANK LOCKWOOD.

FIELD GLASSES-50-Mile range-\$3.55

REGULAR RETAIL PRICE, \$10.00.



We recently secured 98 pairs of regular \$10 Field Glasses at such a remarkably low price that we are able to offer them to the readers of the "Farmer's Advocate" at \$3.55 a pair, almost one-third below the regular wholesale price. They are beautifully finished throughout, and are covered with either black pebbled leather or imitation tan alligator, with black or nickel trimmings. Each pair of glasses comes in a strong waterproof case, with leather carrying strap. The outer, or object, lenses are over two inches in diameter, which gives them great power at long range. These particular glasses, of which we have just secured 98 pairs, are not made to fit the eyes as shown in the illustration, but, instead, are provided with hoods, which may be drawn out to shade the lenses from the light, and thus ensure a perfectly clear view at all times. No jeweller or optician in Canada would sell you a pair of glasses equal to these for less than \$10.00, and no wholesaler for less than \$10.00. We know that if you could see them you would be quick to realize what a great bargain we offer. We are therefore willing to send a pair for examination to any address in Canada. We ask not one cent in advance. You simply write, saying that you wish to see a pair, and we will at once ship them to your nearest express office. When they arrive, you call and test them thoroughly, and then, if satisfied that they are worth \$10.00, pay the express agent only \$3.55 and express charges, and you will own as fine a pair of glasses as any dealer would sell you for \$10.00. They are beautifully finished throughout, fitted with extra powerful achromatic lenses. On a clear day you can see 50 miles with them. Remember, they are not the small pocket field glasses of use only on race tracks, but genuine long-distance field glasses, suitable for any purpose. They are worth their weight in gold to cattlemen, farmers, hunters, prospectors or fishermen. Allan C. Arvidson, Regina, N.-W. T., said:—"The glasses arrived all O. K., and I must say they are excellent value, and I am highly pleased with them. I don't think any better value in field glasses was ever offered to the public." Frank Telford, Merrickville, Ont., said:—"To say I was well pleased with the field glasses would be putting it very mild. They were far better than I expected, and a wonderful bargain at the price." H. Kirkland, Sarnia, Ont., said:—"I received one of your special field glasses all O. K., and am entirely satisfied with them. I found them exactly as advertised and satisfactory in every particular. I think they are a great bargain." Remember, we were able to get only 98 pairs of these special glasses, and they will not last long at this price, so order to-day without fail. If you do not live near an express office, send \$3.55 cash with order and 35c. to pay postage, and we will forward the glasses by mail and guarantee safe delivery. Address THE MAIL ORDER SUPPLY CO., Dept. 555, Toronto.

BOYS can earn a Fountain Pen in a few hours by selling 8 packages of Blue-Ease at 10c. each. A superior blue. Every family uses it. Send to-day for Blue-Ease. O. COBER, Hespler, Ont.

DAVIDSON'S Latest improved Warehouse and Farm Fanning Mills and Bee Supplies. Circulars free.

B. DAVIDSON, Box 48, Uxbridge, Ont.

GOSSIP.

ROSEDALE STOCK FARM.

Attention is directed to the enlarged advertisement, in this issue, of the Clydesdale and Shire horses, Shorthorn cattle and Leicester sheep of Mr. J. M. Gardhouse, at Rosedale Stock Farm, Weston, Ont. On few stock farms in Ontario are to be found more prize-winning animals than at Rosedale. Among these is Newnham Duke [343], champion Shire stallion and winner of gold and silver medal, Toronto, 1902, now looking better than ever. Victoria [147], an extra large, smooth mare, rising four years, is now in foal to Newnham Duke. She has an unbeaten record in the showing. Her dam was the great show mare, Queen of Highland. Orphan Girl [154], full sister to Victoria, is the making of a grand good brood mare. Louise [172], five years old, by the well-known stock horse, Pride of Hatfield, grandam imported Lottie, is an extra good breeder, and is now heavy in foal. Other good ones are Cauliflower [104], a ten-year-old bay mare, sired by imported Kher Konk, dam imported Columbine, and English Slut [176], imported, by English King (9309).

Imp. Royal Kerr, Vol. 25, a three-year-old Clydesdale stallion, heads the stud. He was recently purchased from Dalgety Bros., and is an exceptionally good horse, sired by Royal Champion, winner of Girvan Premium four years ago. Royal Kerr is a choicely-bred colt, both on side of his sire and dam. Mr. McNeillage, of the Scottish Farmer, writes of him: "Perhaps the best horse shipped this year." Baron Duke [3439], a very large, flashy colt, combining great substance with lots of quality, is by the sweepstake horse, Baron Burgie. Of the Clyde mares, the imported three-year-old Duchess of Millfield, Vol. 25, comes first—a big, clean filly, and a great prizewinner in Scotland—her sire being by Marquis of Millfield =10813=. Another nice filly is Jessie Keir =3694=, sired by Lord Lynedoch =3004=, a champion at Chicago; dam, Cairnbrogie Queen, by Sir Walter, a great prizewinner. It would be difficult to improve on her breeding. These mares are all at work doing the spring seeding, etc.

The Shorthorns number about forty, of which fifteen are imported Scotch-bred cattle, among which is the roan, Fancy 8th, bred by Mr. John Young, sired by Remus, of the favorite Jilt family. She is half-sister to the champion bull, Choice Goods, and is now nursing a nice young bull calf by Prince Victor, imported in dam. One of the great cows of the herd is imported Missie 159th, bred by W. S. Marr, sire Spicy Robin. She is of the same breeding as the \$6,000 cow, and is considered by good judges as one of the best Missies in America. Dalmeny Primula (imp.), a beautiful three-year-old roan, by Principal of Dalmeny, is a very thick, well-fleshed heifer, with such top sires as Spicy Robin and Scottish Archer. Aggie Grace 2nd is a four-year-old red, bred by A. & W. Law, sire Lord James Douglas. An extra good imported heifer is by Lucretia, sired by the great breeding bull, Cornelius. Border Lass is another roan two-year-old, sire Dynamite (78770), of the Amelia family. Among the rest are: Rothnick Beauty, bred by John Young, sire Scottish Prince (73593), has an excellent roan bull calf at foot, imported in dam. Pride 21st, Bess 8th, Miss Howie of the Miss Ramsden family, Strawberry 4th, Dalmeny Maggie by Wanderer's Heir. Among the Canadian-bred cattle are several of the Strathallan family, so well known to Canadian breeders. Of the Orange Blossom family are Monarch's Lady and Warden's Blossom; of the Missie family, Missie of Avondale 4th and Whitfield Missie. The rest of the herd are from the families Crimson Flower, Lavina, Cruickshank Lovely, Lady Elmira, Bruce Mayflower, Wimple and Verberna. Last, but not least, comes the imported two-year-old red bull, Chief Ruler, bred by W. S. Marr, sire by Bapton Chief (75976), dam Blithesome, sold by W. D. Flatt to Geo. E. Ward, Iowa; grandsire Wanderer (60138); great-grand sire William of Orange (59694).

There is yet to mention the flock of

(Continued on page 394.)

GET AN EMPIRE

The Empire Cream Separator turns more easily, is more easily cleaned and kept clean, is more satisfactory in every way than any other cream separator made, because it is simplest in construction and has fewest parts. It will pay you to investigate. Book free.

Empire Cream Separator Co. Bloomfield, N. J. H. C. Sparling, Canadian Representative, Lock Box 493, Toronto, Canada.

THE Empire Way MAKES COWS PAY

NINTH ANNUAL

Canadian Horse Show

Under the joint auspices of the Canadian Horse Breeders' Association and the Toronto Hunt, held in conjunction with the

Fifth Military Tournament

The Armouries, Toronto, Canada,

On Wednesday, Thursday, Friday and Saturday,

April 29, 30, May 1 and 2, 1903,

Entries close on Saturday, April 18th, 1903, and should be addressed to

HENRY WADE, Parliament Buildings, TORONTO.

DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER

WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP THE W.A. FREEMAN CO. LIMITED HAMILTON ONTARIO

WANTED—Position by young married man, experienced stockman and practical farmer; capable manager. Best of references as to character and ability. Write at once, giving particulars and stating wages. Address: FARMER, Kerwood, Ont.

SEED PEAS FOR SALE

Shipped to any point in Ontario.

Write the WOODSTOCK CEREAL CO., Ltd., WOODSTOCK, ONT.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Page Acme Poultry Netting

A bird cannot fly through as small a hole as it can crawl through, so Page Poultry Netting is made with small meshes at bottom and large at top. No. 12 gauge wire top and bottom—no sag. Get Page fences and gates—they're best.

The Page Wire Fence Co., Limited, Walkerville, Ont. Montreal, P.Q., and St. John, N.E. 8

NOTE
CLOSE
MESH
AT
BOTTOM

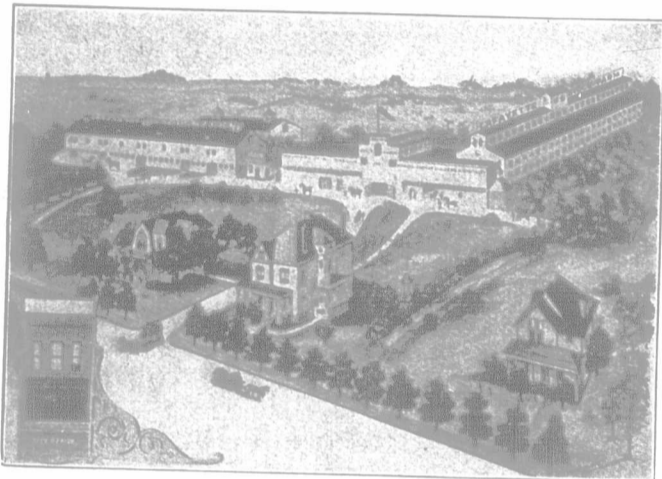



BELGIAN STALLIONS and MARES

IMPORTED LAST SEPTEMBER. THOROUGHLY ACCLIMATED.

The up-to-date drafter, big and medium weight, dark colors, short, straight back, no hair on legs, immense rumps, pony-built body. Not a shaggy lump of fat. A Klondyke in your stable. Honest value for honest money. Write, or, better, come to

BARON DE CHAMPOLOIS, Importer,
DANVILLE, QUEBEC. -om



LA FAYETTE STOCK FARM,

J. Crouch & Son, Props.

Importers of all breeds of **STALLIONS.**

We are the largest Importers and Breeders of Oldenburg German Coach horses in America. We also import Draft horses of all kinds, including Belgians, Clydesdales, English Shires, and Normans. 359 head of Coach and Draft stallions imported in last 15 months.

La Fayette, Ind., U.S.A.

Terms easy. All stock guaranteed.

ROSEDALE STOCK FARM.
IMPORTED SHIRE and CLYDESDALE HORSES.
SHORTHORN CATTLE and LEICESTER SHEEP.

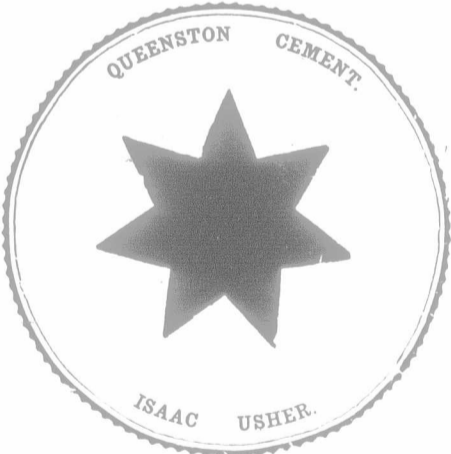
Newham Duke, the gold and silver medal four-year-old Shire stallion, and the imported Clydesdale stallion, Royal Kerr, in service; also Clyde and Shire stud colts for sale. Imp. Chief Ruler, bred by W. S. Marr, breeds the Shorthorn herd. Of the females, 15 are imported, from such families as Marr Missies, Strathallans, Jealous Girls, Crimson Flowers, Orange Blossoms, Wimples, Lovelys, Jilts, Secrets, Verbenas, etc. Farm 15 miles from Toronto, on G. T. R. and C. P. R. Post office, telephone and telegraph.

J. M. GARDBOUSE, Weston, Ont.

Going to Build?

A new house, barn, silo, concrete floor, or any other such work? If so, use

Queenston Cement



THE old brand made by a new process. No better cement made. All who contemplate using cement should first inspect the different structures built of the different kinds of cement, and then they would know which is best and cheapest. We especially request those interested to ask our many patrons about the new process Queenston Cement used during the latter part of last season. Do not be misled by statements from those who sell the goods most profitable to themselves. Write for prices, estimates and full particulars. We can save money for you when building.

ISAAC USHER,
QUEENSTON, ONTARIO.

SAVE 20 CENTS PER SHEEP on every sheep you shear with **STEWART'S PATENT SHEARING MACHINE**

The old-fashioned hand shears is past. No owner of 10 sheep or more can afford to hand shear, though the work be done for nothing. Shear with this machine and save ONE FORTY-NINE CENTS PER SHEEP. It will more than cover the cost of shearing and will save you money.

STEWART'S PATENT SHEARING MACHINE CO., 110 Ontario St., CHICAGO.

GOSSIP.

(Continued from page 393.)

seventy-odd Leicester sheep, imported and home-bred, with a fine crop of lambs, by the imported ram, E. 60, bred by Lord Roseberry, and with a prizewinning record scarcely equalled by any other flock in America. Parties desiring to purchase stock in any of these lines should write Mr. Gardhouse, to Weston, Ont., or give him a call. Weston is only seven miles from Toronto.

A choice 100-acre farm, with complete buildings and other outfit of more than usual importance, is advertised in this issue, by C. H. Chapman, Wyoming, Lambton Co., Ont.

Recently, our representative called on Messrs. Jas. Tolton & Son, 3 1/4 miles from Walkerton, and there saw their recent purchase, the promising young imported roan Shorthorn bull, Prince Homer, bought from Mr. John Isaac, Markham, and bred by Sy Campbell, Kinellar, Scotland; sire Knight of Strathbogle 2nd =79172=. They have also bought Lady Mary (imp.), roan heifer, with very sweet head and shape, bred by Alex. Brown, Wartle Mills, Scotland; sire Bounding Willow =78438=. They have several imported cows of good Scotch breeding, and others of such noted families as Miss Ramsden, Favorite, Strawberry, etc.; also, three red yearling bulls, in first-rate condition, for sale, besides numerous calves from the grand bull, Heir of Hope =32637=, from imported Kinella. Besides the breeding of Shorthorns, a nice flock of Oxford Down sheep is kept, of thirty breeding ewes and a well-grown lot of fifteen yearling ewes and twelve yearling rams, by imported ram, Reading's 28th 1899—a thick, well-wooled ram, well marked, strong bone, and a sure sire. Of these, the rams, yearling ewes and some two-year-old ewes are for sale.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office.

We have had placed in our library, by the Orange Judd Company, a volume entitled "The Book of Corn." There are about 350 pages or reading matter, dealing with every phase of the corn industry. The work has been prepared under the direction of Herbert Myrick, by the most capable specialists, such as A. D. Shamel, Prof. H. J. Waters, Albert W. Fulton, Bernard W. Snow, Prof. Luther Foster, Prof. Willis G. Johnson, Prof. Levi Stockbridge, Clarence A. Shamel, Prof. E. V. Voorhees, Prof. Hugh M. Starnes, E. C. Powell, Prof. J. C. Arthur, Prof. C. S. Phelps and many others. Farmers and all other students of advanced agriculture will find this a most useful and up-to-date authority on the greatest of the world's cereals. Price, through this office, \$1.50.

\$50 to California and Return.

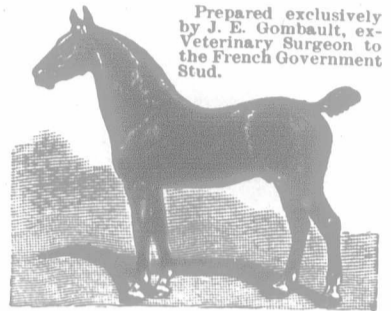
Via Chicago & North-Western Railway. First-class round-trip tickets on sale from Chicago, May 3rd and May 12th to 18th, to Los Angeles and San Francisco. Correspondingly low rates from other points. Favorable limits and stop-over privileges. Low one-way settlers' rates to Western points in effect daily until June 15th. Three trains a day from Chicago to the Coast through without change. Daily and personally conducted tourist car excursions to California, Washington and Oregon. For particulars apply to your nearest ticket agent, or address, B. H. Bennett, 2 East King St., Toronto, Ont.

Horse Owners

Look to your interests and use the safest, speediest and most positive cure for ailments of your horses, for which an external remedy can be used, viz:

GOMBAULT'S CAUSTIC BALSAM

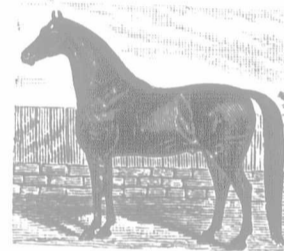
Prepared exclusively by J. E. Gombault, ex-Veterinary Surgeon to the French Government Stud.



SUPERSEDES ALL CAUTERY OR FIRING.

Impossible to produce any scar or blemish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Cattle. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

DR. PAGE'S ENGLISH SPAVIN CURE



For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, 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.



New Book on how to prevent and cure diseases of horses and cattle, to know sound horses, age, constitution, valuable recipes, etc., prepared especially for farmers, from facts gathered in 20 years' practice, by S. S. Dickinson. (Out shortly.) Advice by mail, \$1.

Address S. S. Dickinson, Port Hope, Ont.

BAWDEN & McDONELL
Exeter, Ont.



IMPORTERS OF **Clydesdale, Shire and Hackney Horses**

are now offering several imp. Clydesdale, Shire and two Hackney stallions, prizewinners in England, Scotland, and Canada, and representing the best blood alive; also several choice Canadian-bred ones. These animals are all true to type, and possess substance, quality, style and action.

THE KINDERGARTEN STUD FARM, GUELPH. JAMES HURLEY, Proprietor. Breeder of Thoroughbred horses from noted sires and dams. All classes of horses for sale.

"SURE-GO" HAMEFASTENER. A 20th Century Idea. No Buckle. Outlasts Harness. Simple; quick; works like a charm. Sent prepaid at 50 cents a pair, to introduce them. JOHN HAUSAM, 175 A, RACINE, WIS., U.S.A.



DEATH TO HEAVES Guaranteed. NEWTON'S Heave, Cough, Distemper and Indigestion Cure. A veterinary specific for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can. Dealers, Mail or Ex. paid. Newton Horse Remedy Co., Toledo, Ohio. Druggists supplied by Lyman Bros. & Co., Toronto and Montreal.

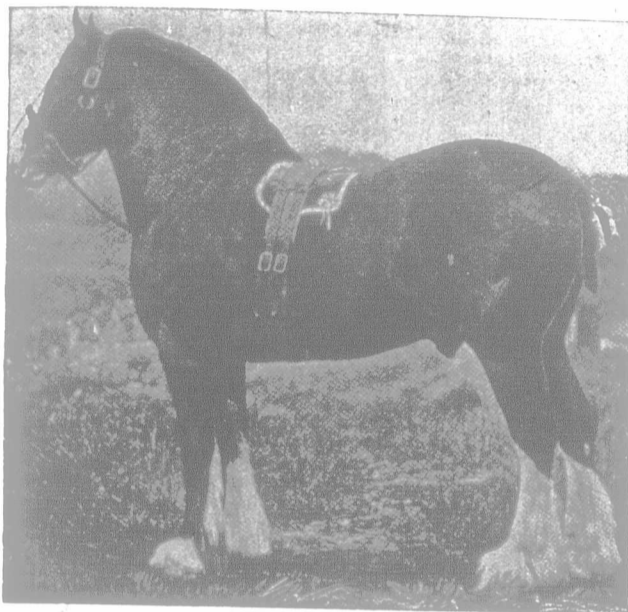
NEW IMPORTATION

Arrived January 21, 1903.
Thirty-five first-class stallions just added to our stock gives buyers an unequalled selection.

CLYDESDALES SUFFOLKS PERCHERONS
SHIRES HACKNEYS.

Call early and be convinced of the superior quality of our horses and our very reasonable prices. Over twenty years at the front.

ALEX. GALBRAITH & SON, Janesville, Wis.,
and Brandon, Manitoba.



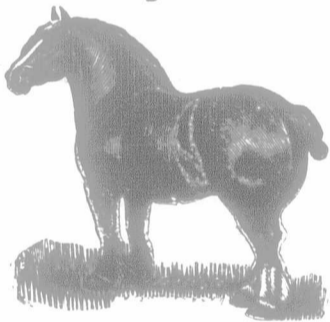
ROBERT BEITH,
BOWMANVILLE, ONT.,
IMPORTER AND BREEDER OF

Clydesdale AND Hackney Horses

Is offering for sale a number of choicely-bred Clydesdales and Hackney stallions; also a number of Hackney mares. The Clydesdales are sired by the noted horses, Prince of Albion, King of the Roses, Lord Stewart and The Prior.

JOHN BRIGHT, MYRTLE, ONTARIO,
BREEDER OF

Clydesdales and Shorthorns,



Is now offering for sale 8 stallions, sired by such horses as Prince Patrick (imp.), Erskine's Pride (imp.), Sir Erskine (imp.), Royal Laurence (imp.). Also a number of mares and fillies. Shorthorns of all ages, of such families as Miss Ramsden, Clementina, Strawberry, Crimson Flower, Village Girl, Stamford, Rachel, etc.

Myrtle Station, G. T. R. and C. P. R.
Farm connected by long-distance telephone.

Hodgkinson & Tisdale

BEAVERTON, ONT.,

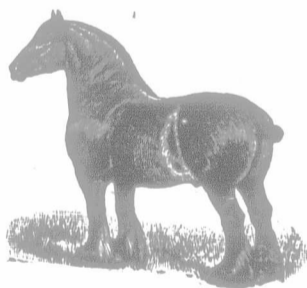
Breeders of

CLYDESDALE AND HACKNEY HORSES

AND SHORTHORN CATTLE,

are now offering a number of choice mares and fillies, and a few young stallions, winners at Toronto; also a few nice harness horses.

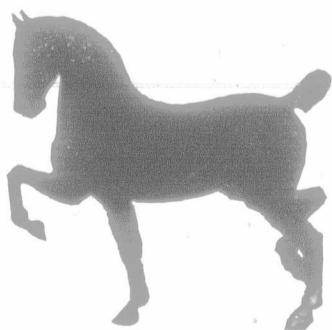
Shorthorns of both sexes for sale.
BEAVERTON P. O. AND STATION.



100 PERCHERON, SHIRE AND HACKNEY STALLIONS AND MARES



All good ages, good colors, with lots of size, quality and action, at prices below competition, on easy terms. Every stallion sold on a gilt-edge and responsible guarantee. At the Indiana, Ohio, New York State Fairs, and International at Chicago, on eighteen head won 178 first prizes, grand sweepstakes and gold medals in the last three years. SPECIAL INDUCEMENTS TO CANADIAN BUYERS.



LEW. W. COCHRAN,

607 WEST MAIN ST., CRAWFORDSVILLE, IND., U.S.A.

GOSSIP.

Volume 54 of the American Shorthorn Herdbook has been received at this office, thanks to the courtesy of the Secretary, Mr. John W. Groves, Springfield, Ill. This volume contains the pedigrees of bulls numbered from 189533 to 194183, both inclusive, and also the pedigrees of 6,806 cows. This volume, which is a very creditable production, is now ready for general distribution, the price of same being \$3 at the office or \$3.30 prepaid. Volume 55, containing about 12,000 pedigrees, will be started to the printer within a few days, and nearly enough pedigrees have been received to fill Volume 56. Entries for this volume will close about the middle of the present month, or very soon thereafter.

Not far from Chatsworth, on C. P. R., is the farm of Mr. John McKenzie, who is building up what promises to be a very up-to-date herd of Shorthorns, as he is paying considerable attention to breeding along fashionable lines. Recently, the herd was strengthened by the addition of a very handsome Missie bull, Mischief-Maker =1398=, bred by W. D. Flatt, sire of Golden Fame (imp.) =26056=; also a very nice cow, Ury Girl 3rd =29425=, from imported stock, and Ury Ann 3rd =33589=, by Royal Saxon—shown at several shows and never beaten—a symmetrical cow, with well-placed teats and good mammary development. Among others of the herd is Kenward Dora =36612=, from Strawberry family; Lucia Ann 2nd, and from such families as Village, Syme, Missie, etc. There are for sale four heifers, from one to two years old, in good condition, and of good Scottish breeding, being by Golden Crown =29639=. Mr. McKenzie has also the silver medal Clydesdale mare of any age (1900), Toronto, Royal Lady, who is now in foal to Baron Burgie, gold medal horse in same year. A living testimony to her quality as a brood mare is also on the farm in a promising-looking two-year-old stallion, Royal McQueen, by McQueen—a well-grown colt, with good quality of bone, fine feet, with good disposition and in good condition. For further particulars, apply to Mr. J. McKenzie, Keward P. O., Chatsworth Station, C. P. R.

NOTICES.

BEAVER MANUFACTURING CO.—We would draw the attention of our readers to the Beaver Mfg. Co.'s striking advertisement, in this issue, in the column immediately preceding the editorial page. Although it is a straight advertisement, it is well written and well worth reading.

"SALADA."—By sending your name and address and a two-cent stamp to the "Salada" Tea Co., Toronto, you will receive, by return mail, a good-sized sample of their celebrated tea. Be sure and mention whether you drink black, mixed or green tea. The "SALADA" advertisement appears on another page of this issue.

A HANDY MAN with a simple device can often save considerable money that would otherwise go into the hands of a manufacturer. To meet the demand for such devices, the London Fence Machine Co. have put an article on the market with which a man can weave wire fence with any desired mesh. The machine is simple, easy to operate, and will last indefinitely. See the advertisement, in another column, and write for an illustrated catalogue.

STOCK FOOD.—Owing to the great rush of business, the International Stock Food Company have been compelled to put on a night crew and run their factory 24 hours per day. They have added 10 more typewriters, and this gives them a force of 130 people. Their office is the largest in the entire North-western States. Sales for 1903 have been much larger than for the corresponding months of 1902, and the March sale was the largest since the business was established. Farmers and stockmen obtain paying results from the use of International Stock Food.

Blood will tell



When an animal is all run down, has a rough coat and a tight hide, anyone knows that his blood is out of order. To keep an animal economically he must be in good health.

DICK'S BLOOD PURIFIER

is a necessity where the best results from feeding would be obtained. It tones up the system, rids the stomach of bots, worms and other parasites that suck the life blood away.

Nothing like Dick's powder for a run down horse.

50 cents a package.

Leeming, Miles & Co., Agents,
MONTREAL.

ABSORBINE



REMOVES

Puffs,
Tumors,
Thorough-
Pin,
Capped
Hock,
Swellings,

etc., without laying the horse up or removing the hair, strengthens strained and weak tendons, restores the circulation, allays all inflammation. Cures tumors, hernia, weeping sinew, etc., on human family. Price, \$2 per bottle. Circulars with testimonials free.

Manufactured by
W. F. YOUNG, P. D. F., Springfield, Mass.
LYMAN, SONS & CO., Montreal,
Agents for Canada.

RED RIBBON STUD

Largest Importers and Breeders of

Shire Horses



in the Dominion,

including first-prize winner at Royal Agricultural Show in England, and winning more prizes at Industrial and other large shows than all others combined.

Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

MORRIS & WELLINGTON,
Fonthill P. O., Welland County, Ont.

Thorncliffe Stock Farm

ROBERT DAVIES

usually has on hand some fine specimens of Clydesdales, Hackneys, Jersey and Ayrshire Cattle, Yorkshire Pigs.

Correspondence solicited. Visitors always welcome at

THORNCLIFFE,
TORONTO.

CLYDESDALES

AYRSHIRES and
POULTRY.



R. Ness & Sons, Howick, Que.

importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

TRUMAN'S PIONEER STUD FARM



BUSHNELL, ILL.,

Has for 24 YEARS been headquarters for the CHOICEST

SHIRE, PERCHERON, SUFFOLK AND HACKNEY STALLIONS.

Last importation received February 25th, 1903.

20 to 30 Good Practical Salesmen Wanted.

Best lot of draft stallions in the United States or Canada. Notwithstanding the superior quality of our horses, it is a fact that our prices are lower than can be obtained elsewhere in America. If there is no first-class stallion in your neighborhood, please write us. For our 24th annual catalogue, etc., address—

J. G. TRUMAN, Manager,
BUSHNELL, ILL.

NEW IMPORTATION ARRIVED FEBRUARY 20, 1903

ANOTHER LOT OF

First-class Clydesdale Stallions

has just been added to our stock, giving buyers an unequalled selection. These horses are sired by such sires as Baron's Pride, Prince Romeo, Prince Thomas, and other noted sires. They have superior quality, and are for sale at very reasonable prices. Persons desiring to purchase should write or call on

WM. COLQUHOUN, Mitchell P. O. and G. T. R. Station, Ont.

Imp. Clydesdales and Shorthorns



Messrs. Smith & Richardson,
COLUMBUS, ONT.,

Importers and breeders of Clydesdale horses and Shorthorn cattle, are now offering 14 stallions, 9 of them imported, including brothers of the world-renowned Baron's Pride, Hiawatha, and Royal Cairnton; also 13 mares bred from imported stock. Short-horns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G. T. R., Myrtle, C. P. R.

Long-distance Telephone, Columbus.
Telegraph, Brooklin.



International Importing Barn, Sarnia, Ontario.

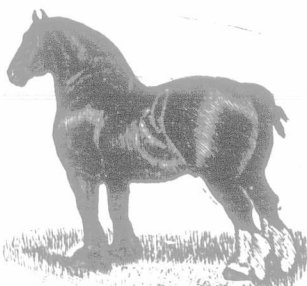
J. B. HOGATE, PROPRIETOR.

IMPORTER OF

Clydesdale and
Shire Stallions, and
Spanish Jacks.



My third importation within
the last fourteen months
arrived Sept. 4th.



I select every one myself, and it is conceded both in Europe and America that I do get the best ones that cross the Atlantic to America. My stallions are sired by the leading sires of Scotland; ages from two to four years. The Jacks are direct from Spain, and registered, two to four years old, 14 to 154 save you money. I pay cash for my stock. I buy where I can get the best. Write for particulars. Will mention this paper when you write.

H. H. CALISTER, Manager and Salesman.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

At the sale on March 26th, of Short-horn cattle from the herd of P. D. Fuller, at Sutherland, Iowa, the weather being very unfavorable, 33 head sold for an average of \$172. The highest price was \$400, for the imported two-year-old heifer, Jessamine 6th, purchased by John Rasmus, Lake City, Iowa.

Our entire herd of Ayrshires is doing unusually well—bulls, cows and calves. We are sending, daily, quite a nice lot of milk to cheese factory, in which there is good money. Cheese prices are uncommonly high. Spring is very early. Grass at this date, April 7th, has made quite a start, and everything indicates early growth. We have everything ready for rebuilding—gravel for cement walls and floors, to be 130 ft. x 50 ft., which ought to give us ample stable room. We are anxiously waiting the time we can turn out the stock and empty all the stables, to begin pulling down barns, stables, etc. The cows are milking heavily, and calves are doing well—feeding them new milk. Two of the bull calves are almost white, the others are light colored, but spotted. We have only three heifer calves, and you, Mr. Editor, can understand why we are anxious to sell our bull calves, as we have no accommodation for keeping them, and think the first loss perhaps the least, as to keep them and neglect them might mean more loss. The first buyer gets the choice, if any, and we think it a rare chance to get a cheap bull for a dairy or pure-bred herd. We only make this offer once, and do not bind ourselves to supply every inquiry, but "first come, first served," till all sold. Yours very truly, Alex. Hume.

GOODFELLOW BROS., MACVILLE, ONT.

During a recent visit to the genial Goodfellow Bros., of Oak Lane Stock Farm, one most noticeable feature of the place was the perfect confidence between the animals and their owners, from the largest bull to the recently-born calf—an object lesson as to what good handling and kindness will do. In such a herd, where none but the best is kept, we cannot mention all, but of those mentioned in the "Gossip" of December 2nd issue, Mamie Stamford, by Golden Standard 34686, by Golden Flame, has improved immensely since she took first prize in junior heifer class, and looks like a sure winner again. Water Lily is as fit as ever, and may be considered one of the best females in Canada—now in calf to Famous Pride. Buchan Lass (imp.), with calf at foot by Nonpareil Duke, he by Golden Fame, by Clan Alpine, and two very sweet yearling heifers, Roan Isabella, by the noted Precious Stone, by Corner Stone, and Lady Fragrance 9th (imp.), by Lochnagar =14854=, both in calf to Famous Pride, would prove a bonanza to anyone desiring to start a first-class herd. Famous Pride, by Golden Fame—the same family as Choice Goods—is a low-set, well-fleshed, vigorous young bull—a worthy successor to Shining Light (sold to Mr. Platt)—of almost faultless conformation and great promise. Of three bulls offered for sale, Golden Fame 2nd is an unusually well-grown bull of great size, and although only eighteen months old, would weigh about 1,700 lbs. Favorite (imp.), yearling roan, by Golden Fame =76786=, will be shown in junior yearling class, if not previously sold. This bull has done exceedingly well since our last visit, as has Gipsy Lad =23916=, a red-roan of pleasing appearance. Gipsy Maid has a fine bull calf, by Shining Light, who will be shown in senior bull calf class. Orange Blossom II., by Scottish Prince; dam Orange Blossom, by Remo, by sire of Choice Goods, will be shown as a three-year-old. Water Cress (imp.), roan, first Western and second Toronto fairs as three-year-old cow, needs no comment. Tilbourie's Fancy (imp.), a sweet roan two-year-old, by Scottish Chief, grandam Star of Morning, has a calf at foot by Prince Victor, by Lavender Victor 76994. The Cotswolds, of which there is a fine flock of twenty ewes, are in magnificent condition, as are also the Yorkshire pigs.

Spavin
Ring Bone
Knee Sprain
Fistula
Poll Evil
Lump Jaw

The Books Are Free

If you have a horse that is lamed or blemished by any kind of a growth or enlargement, that is Knee Sprain or has Fistula, Poll Evil or Sweeney, or if there is a case of Lump Jaw among your cattle, write us at once. We will send you two big booklets. One tells you just how to cure these diseases and blemishes. The other proves that you can cure them, and we guarantee you success besides. Same methods employed by over 140,000 farmers and stock owners. Write for the books and tell us what kind of a case you have to treat.

PLEMING BROS., Chemists,
45 Front St., West, Toronto, Ont.

Horse Insurance.



You can insure your horse against Curb, Splint, Spavin, Sprained Cord and all forms of Lameness, by using

Tuttle's Elixir.

The safe plan is always to have a supply on hand.

Used and Endorsed by Adams Express Company.

Tuttle's American Condition Powders

—a specific for impure blood and all diseases arising therefrom.

TUTTLE'S FAMILY ELIXIR cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," FREE.

Dr. S. A. TUTTLE, 66 Beverly St., Boston, Mass.

Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all others; they offer only temporary relief, if any.

LYMAN, KNOX & SON, Agents,
Montreal and Toronto, Canada.

OAKLAWN FARM.

Greatest Importing and Breeding Establishment in the World.

Famous Prize-Winning Stud of



PERCHERONS and
FRENCH COACHERS.

On hand upward of
500 HEAD.

Four Large Importations in 1902,

forming, with our home-breds,

The Choicest Collection Ever Assembled,

including Four of the Six First-Prize winners

at the great annual French Show of the Societe

Hippique Percheronne in 1902. At the recent

INTERNATIONAL LIVE-STOCK EXPOSITION

at Chicago, the Oaklawn Percherons achieved

distinguished honors. The Champion Stallion

and every First-Prize winner (except one)

in the regular stallion classes were imported by

Dunham, Fletcher & Coleman.

Notwithstanding the superior quality of

our horses our prices are lower than can be

obtained elsewhere in America.

Catalogue sent on application.

DUNHAM, FLETCHER & COLEMAN,

WAYNE, DU PAGE CO., ILLINOIS.

GEO. STEWART, Howick, Quebec,

IMPORTER OF

Clydesdale

Horses

has now on hand for sale 3 two-year-olds and 1 year-

ling stallion, carrying the blood of Hiawatha,

Darnley, Lord Erskine, Prince of Wales and Time o'

Day, combining size, style, quality and action. Also

1 five-year-old mare, with filly foal. The best lot I

ever imported. Write quick.

GEO. STEWART, Howick, Quebec.

FOR SALE: 6 CLYDESDALE STALLIONS

from 1 to 8 years old, good individuals, of most

fashionable breeding and good breeders, and a few

young mares. Come and see them and their produce.

Also 2 young Shorthorn bulls. I. DEVITT & SON,

Burlington Junction Sta., on Freeman P. O.

G. T. G. 1 mile from farm.

HOLWELL MANOR FARM

FOR SALE:

Two Scotch Collie bitches, one 8

mos., the other 15 mos. old.

D. G. GANTON,

ELMVALE, ONT.

FOUR FREE FRIENDS FOR FARMERS

Our money winning books, written by men who know, tell you all about

Potash

They are needed by every man who owns a field and a plow, and who desires to get the most out of them.

They are free. Send postal card.

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MAGIC SODA

OR SALERATUS IS THE BEST.

E. W. GILLETT COMPANY LIMITED
TORONTO, ONT.

HIGH PARK STOCK FARM GALLOWAY CATTLE.

6 choice young bulls, from 10 months to 2 years old, for sale. Prices right. Come and see them. Shaw & Marston, P. O. Box 294, Brantford, Ont. Breeders of Galloway cattle.

AYRSHIRE BULLS. from 10 to 16 months old, sired by one of the best stock bulls in Canada, Rosland of St. Annes (8901), and from dams producing 50 to 60 lbs. of milk per day, write quick to D. LEITCH, Cornwall, Ont.

THE SUNNYSIDE HEREFORDS.

Onward 120463, by Imp. March On 76035, at head of herd. For sale: 4 bulls, ranging in age from 15 months to 3 years old; 3 choice young cows and 4 heifers, from 10 months to 2 years old. Visitors welcome. O'NEIL BROS., Southgate, Ont. Iderton station, L. H. & B.; Lucan station, G.T.R.

"Tweedhill" Aberdeen-Angus. Individuals from this herd or their calves have been first at all the best shows since 1896. Females and young bulls for sale. JAMES SWARP, ROCKSIDE, ONTARIO. Cheltenham station, C. P. R. and G. T. R.

ABERDEEN - ANGUS.

For Sale: One two-year-old bull and one yearling bull, sired by Laird of Tweedhill. Will sell right. W. HALL, Washington P. O. Drumbo Station.

SALE! INGLESIDE HEREFORDS.

Young bulls, cows and heifers of most up-to-date type and breeding. If you want good Herefords at good-value prices, send for illustrated catalogue, and state requirements. Also bred Hereford cows and heifers. H. D. SMITH, Compton, Que.

GOSSIP.

At a combination sale, by auction, of Aberdeen-Angus cattle held at South Omaha, Neb., March 24th and 25th, 109 head sold for an average of \$188. The highest price was \$670, for the two-year-old heifer, Blackbird of Denison 43rd, contributed by Chas. Escher, Jr., Irwin, Ia., and purchased by C. D. Hooker & Son, Maryville, Mo.

Mr. W. D. Flatt, Hamilton, Ont., reports the following recent sales of Shorthorns from his Trout Creek herd: To W. J. Asaph, Elmgrove, Ont., a yearling bull named Nonpareil Champion, of the well-known Nonpareil family, got by Village Prince, belonging to the Cruickshank Village family; grandsire Sitty-ton Seal—64866—, a Cruickshank Secret, won first at the Highland Society Show. He was by the Brawith Bud bull, Roan Robin, out of Sobriety, by Roan Gauntlet, a son of the great Princess Royal, by Champion of England; while his great-grandsire was Gravesend—46461—, an excellently well-bred Brawith Bud bull, and was used at Kinellar and afterwards at Collynie, until he was thirteen years old, when he was purchased then to head Lord Middleton's herd in Yorkshire. The dam of the young bull sold to Mr. Asaph was considered the best young cow in our herd. She was bred by Lord Roseberry. Her dam was sired by the late Sylvester Campbell, and was supposed to be the best cow in his herd at the time of his dispersion sale. I have never seen anything better in Scotland; carried an immense amount of flesh and was a great milker as well. Mr. Asaph is to be commended and should have the support of the people of his locality for the enterprise he has shown in trying to improve the cattle in that district. To Mr. Ormiston, Columbus, Ont., and J. Dyer, Enfield, Ont., a red imported yearling bull named Merry Master, bred by John Marr, of Scotland, of the famous Miss Ramsden family that produced the \$6,000 Brave Archer and many other good ones. His sire, Luxury—74958—, belongs to the well-known Rosewood family, which has furnished many Smithfield prize animals. He was got by Waverley, who, after winning at the Highland Society Show in Aberdeen, in 1894, was purchased to head the Inverquhomery herd, not only for his great merit, but also because of his excellent breeding. It will be seen by his breeding that Luxury is a half-brother to the famous bull, Silver Plate, that was the sire of the grand champion Shorthorn at Chicago International, last December. These gentlemen have also shown good enterprise in the purchase of this imported bull to the benefit of themselves and their locality. To Geo. Amos, Moffat, Ont., a red imported bull named Ben Lomond, a year old last month, was bred by A. Watson, Scotland, the gentleman who bred the famous Lord Banff. This bull belongs to the favorite Kibbaleen Beauty family, and has for his sire, Clifton—73241—, a Cruickshank Clipper, got by Prince of Fashion, and was the pick of Mr. Duthie's 1892 calves and a son of Scottish Archer. His grandsire, Craibstone, was without question one of the greatest bulls of his day. He belonged to the Marr Bessie family, which produced, amongst many good ones, the great show bull, Sign of Riches. Craibstone was got by the great Orange Blossom bull, William of Orange. Mr. Amos is a small breeder, but both he and his son are good caretakers, and this young bull will doubtless be heard from later on. They are building up a very nice herd, indeed. To V. O. Hildreth, Aledo, Texas, a bull calf named Choice Goods of America, bred by us, got by the famous Choice Goods, out of Rosaline 3rd (imp.), bred by Mr. Duthie, her sire being Lovat Champion, the well-known prizewinning bull, purchased recently by Mr. A. Chrystal, of Marshall, Mich., from Mr. Duthie, at a very long price. The great-grandsire was Chief of the Clan, the great-great-grandsire William of Orange. We have also made several other sales, which will be reported later on. Trade has been good; in fact, we have never known it better.

THE MOST NUTRITIOUS. EPPS'S COCOA

An admirable food, with all its natural qualities intact, fitted to build up and maintain robust health, and to resist winter's extreme cold. Sold in 1 lb. tins, labelled JAMES EPPS & Co., Ltd., Homoeopathic Chemists, London, England.

EPPS'S COCOA
GIVING STRENGTH & VIGOUR.

FOR SALE: Pure-bred Rough-coated Collies, from prizewinning stock; dark and light colors; male and female. J. D. RODDICK, Cobourg, Ont.

SPECIAL To Stock Raisers

500 Packages Given Free. We will give a 35 cent package of cream for calves free to any person purchasing 50 lbs. of Day's Aromatic Stock Food; price, \$3. Send cash by P.O. note or express. Ask your dealer, or write to THE Day's Stock Food Co., TORONTO

BEAVER VALLEY SHORTHORNS. Some choice heifers and young cows with calf at foot; also two bulls for sale. Inspection invited. E. & C. PARKINSON, Thornbury P. O. and Station, G. T. R.

OAK LANE STOCK FARM.

Shorthorns, Cotswolds, Yorkshires and Barred Rock Fowls. FOR SALE: Three bulls (2 imp.), cows and heifers, both imported and Canadian-bred. Still open to take orders for N.W. trade. Write for prices. Satisfaction guaranteed. GOODFELLOW BROS., MACVILLE, ONT.

Scotch-Topped Shorthorns—(Imp.) Captain Mayfly (No. 28858), winner of sweepstakes at Toronto (1900), 1st at Toronto and London (1902), at head of herd. Animals of all ages and both sexes for sale. JOHN C. BRICKER, Elmira P. O. and Station, on G. T. R.

SCOTCH-BRED SHORTHORNS. Bulls (2 reds and 2 roans) from 10 to 15 months old; also two heifers, 2-year-olds, in calf to Goldfinder, due in July. All good individuals as to size and quality, at "let-live" prices. L. K. WEBBER, Co. Waterloo, Hawkeville P. O., Ont.

H. PARKER, RIVER FARM, DURHAM. Breeder of SHORTHORN CATTLE. In service, Verschoyle (imp. in dam) = 36125. Stock for sale.

Shorthorns, Clydesdales and Leicesters FOR SALE: Young animals of both sexes always on hand for sale; bred in the purple, and as good as the best. 20 Leicesters, both sexes, all ages.

WM. McINTOSH, Burgoyne P. O. Port Eglon Sta.

MANITOULIN SHORTHORNS Edwin Beck, Gore Bay, Manitoulin Island Breeder of SCOTCH and SCOTCH-TOPPED SHORTHORN CATTLE. A few choice animals.

CEDARDALE SHORTHORNS FOR SALE—3 bulls from 1 to 2 years old, two of them of Lord Gloster 26945 and Flora dams, the other by Cedarville Chief 26838, Beauty dam; a big, growthy, sappy lot. Dr. T. S. Sproule, Markdale, Ont., P. O. and Sta.

Choice Shorthorns and Shropshire Sheep. I am now offering bulls from 8 to 16 months old. Heifers of all ages, some in calf. Present stock bull, Roan McKay = 37867. CHAS. CALDER, Brooklin.

TROUT CREEK SHORTHORNS



JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

R. & S. NICHOLSON
Sylvan P. O. Parkhill Station, Ont.
Importers and breeders of SHORTHORNS

Have for sale: 13 IMPORTED HEIFERS, 7 YEARLING BULLS, 20 HEIFERS (choice). Home-bred herd composed of Nonpareils, Minas, Clementinas, Cruickshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

Shorthorns and Yorkshires—Stock bull, Scotch Lad = 35908, and 1 bull, 12 months, for sale. Up-to-date Yorkshires, bred straight from imp. stock. Pigs of spring litters for sale. G. W. KEAYS, Hyde Park, Ont.

SHORTHORNS AND BERKSHIRES. Six bulls fit for service; also a few cows and heifers—best breeding and quality. A few Berkshires, 6 months old, both sexes. Prices reasonable. F. MARTINDALE & SON, Caledonia Station, York, Ont.

FOR SALE: YOUNG BULLS from the herd of the late D. Alexander, red and roan. Good breeding. Prices reasonable. ALEXANDER BROS., Bridgen, Ont.

W. R. Bowman, Mt. Forest, IS OFFERING YEARLING DURHAM BULL of an excellent dairy strain (weight 1,200 lbs.) for \$75.00. Two Aberdeen-Angus bull calves 13 and 9 mos., at \$75 and \$90. Yorkshire boars and sows, Suffolk Down sheep, shearing ewes and ewes in lamb.

QUEENSTON HEIGHTS SHORTHORNS

Derby (imp.) = 32057 = at head of herd. Bulls, good ones, 8 to 15 months, at reasonable prices. Also Large English Yorkshires. HUDSON USHER, QUEENSTON, ONT. Farm 3 miles north of Niagara Falls.

Lakeview Shorthorns. Herd represented by such noted families as Stamfords, Minas, Marr Floras, Grimson Flowers, Village Girls, Bucoo Lassies, and Lavinias. Some yearling and two-year-old heifers for sale. James Flower Strathairn P. O., Meaford Sta.

SHORTHORNS, COTSWOLDS, Berkshires and Barred Rock Eggs. Six bull calves for sale, from 2 weeks to 8 mos. old. A few young cows in calf. Choice ewe lambs. Barred Rock eggs, from Hawkin's Royal Blue strain, at 75c. for 13, \$2 for 50, \$3.50 a hundred. F. BONNYCASTLE & SON, Campbellford P. O., Ont.

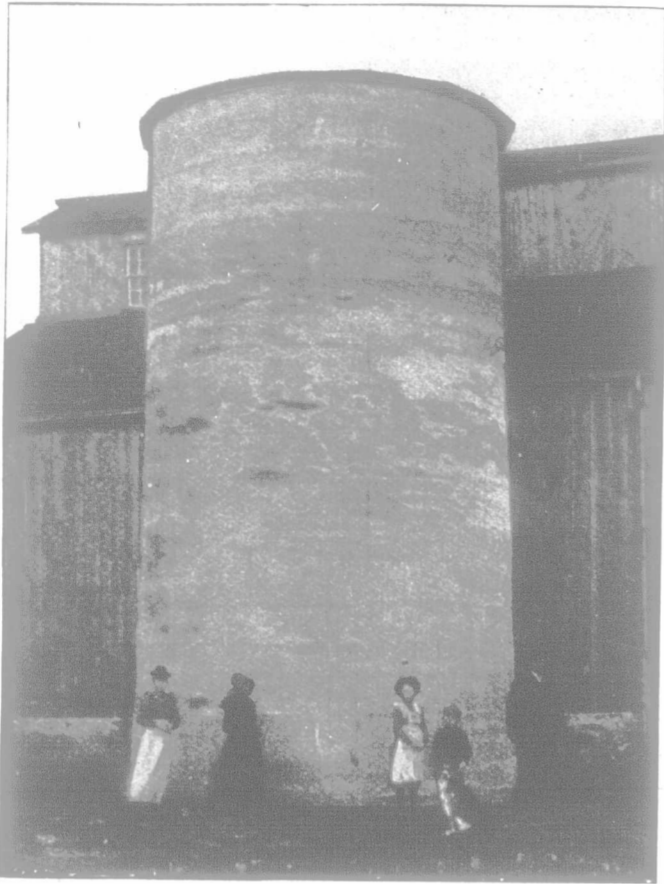
HERD is now headed by Aberdeen Hero 28850 (imp.). Am offering a few choice bulls from 10 to 20 mos. old. Am getting a number of choice Abbottsford heifers, and have some cows yet to calve, in calf to Abbottsford, J. K. HUX, Rodney, Ont.

HIGH-CLASS SHORTHORNS Now offering 5 bulls, from 4 to 17 mos. old, sired by Royal Duke, he by Royal Sailor (imp.). Also females, all ages, some in calf. Prices moderate. J. R. McCALLUM & SON, Iona Sta. & P. O., Ont.

SHORTHORNS and LEICESTERS HERD ESTABLISHED 1855. A number of young bulls and females for sale. Also my herd bull, imp. Christopher = 28859. A satisfactory reason for offering him. Also Leicester sheep of both sexes.

JAMES DOUGLAS, CALEDONIA, ONT. SHORTHORNS FOR SALE: 10 choice Shorthorn heifers and 10 young bulls, of choicest quality and breeding, at reasonable prices. G. A. BRODIE, Betheda, Ont.

Portland Cement Concrete Silo.



BUILT FOR SHERMAN HARRIS, VERSCHOYLE, ONTARIO,
14 feet in diameter and 30 feet high,

WITH
"RATHBUN'S STAR" BRAND,
MANUFACTURED BY THE CANADIAN PORTLAND CEMENT COMPANY, LIMITED.
SOLE SALES AGENTS:
THE RATHBUN COMPANY,
310 AND 312 FRONT STREET WEST, TORONTO, ONTARIO

Shorthorns, Leicesters and Berkshires
FOR SALE: 4 bulls, from 10 to 18 mos. old; 5 heifers, from 10 to 20 mos. old—rare good ones and winners, 11 ewe and 2 ram lambs. Berkshires, both sexes, all ages, not akin. **E. JEFFS & SON,**
Bond Head P. O., Bradford Sta.

S. DYMENT,
BARRIE, ONT.
Breeder of Scotch Shorthorns
Imported Morning Star at head of herd.

CHARLES RANKIN, WYEBRIDGE, ONT.
Importer and breeder of
Shorthorns, Oxford Downs and Berkshire Pigs
Young stock always on hand.

GREEN GROVE SHORTHORNS
This herd comprises such noted families as Nonpareils, Crimson Flowers, Mysies, Languishes, Butterflies, Jessamines, etc., and is headed by the noted Watt-bred bull, Spicy Robin—28259—winner of second prize at Toronto and London, 1902. A few choice young bulls and heifers from Spicy Robin, also cows in calf to him, on offer; also prizewinning S. C. White Leghorn fowl. Eggs, \$1 per setting.
GEORGE D. FLETCHER,
ERIS SHIPPING STA., C.P.R. BIRCHAM P. O., ONT.



T. DOUGLAS & SONS, STRATHROY, ONT.

Shorthorns & Clydesdales
100 SHORTHORNS TO SELECT FROM.
Herd bulls (imp.) Diamond Head, and other Double Gold—3, 2, 1. We offer for sale a large lot of young bulls, cow and heifers, from 1 to 3 years old, and one 3-year-old stallion, and one 1-year-old mare. Farm one mile north of town.

Shorthorns and Shropshires. Scotch and Scotch topped families of Shorthorns. Young bulls and heifers for sale. Shropshires, bred direct from imported stock: Mansell and Cooper strains. **BRUCE BROS.,** Souffville Station, G. T. R. **Gormley, Ont.**

Maple Grange Shorthorns
CLARETS, LAVINAS AND BEAUTYS,
Sired by such Scotch bulls as Commodore 31025 Scottish Bard, Imp. Baron's Heir. 18 heifers, 12 bulls, a number of cows (heavy milkers), to be sold well worth the money.
R. J. DOYLE,
Owen Sound P. O. and Station and Port.

Shorthorns and Berkshires.
Shorthorns sired by Arthur Bright, Dunblane and Blue Ribbon (imp.). Berkshires of the bacon type. Visitors welcome. Correspondence solicited.
MAC CAMPBELL, **Samson, Ont.**

BELLEVUE SHORTHORNS.
Both sexes. Imported and home-bred. All ages. Prizewinners at home and abroad.
EDWIN BATTYE, Gore Bay P. O. and Port MANTOUIN ISLAND.

CHOICE SHORTHORNS.
We are now offering 12 heifers from 6 months to 2 years of age, and 7 bulls from 6 to 10 months old, some of them extra choice and prizewinners—a low down, thick lot. Also, Yorkshires.
WM. McDERMOTT,
Living Springs P. O.,
Fergus Station.

Imp. Shorthorns and Lincolns
A. D. MCGUGAN,
RODNEY, ONT., P. O. AND STA.,

Imported Aberdeen Hero at the head of the herd, which is composed of the best Scotch families. Ten grand shearing and two-year-old ewes for sale, in lamb to a Royal winner. Also ewe lambs from imported Dudding ewes at reasonable prices.

R. MITCHELL & SONS,
NELSON P. O., ONT.
Scotch Shorthorns. The Marr Princess Royal bull, Imp. Greengill Victor heads herd. We have for sale 4 imported bulls; 1 imported heifer, and a large number of home-bred bulls, cows and heifers belonging to the most desirable Aberdeen families.
Boxington Jet, Station and Tele. Office

GOSSIP.

At a draft sale, by auction, of Shorthorns from the herd of Hector Cowan, Jr., Paulina, Iowa, on March 27th, '47 head sold for an average of \$242. The highest price for a female was \$465, for a bull, \$500.

We draw attention to the advertisement just put in by Mr. L. Burnett, of Greenbank P. O., Ont. Parties desiring Shropshire rams or Shorthorn bulls would do well to enquire for further particulars from the above well-known breeder, or go and see for themselves. Uxbridge Station, Greenbank P. O.

We are in receipt of the following from Mr. O. Sorby: I have sold Baron's Peer to Messrs. Allan Cameron & Buzza, of Owen Sound. He is a son of the celebrated Baron's Pride, and his dam is the massive brown mare, Lady Diana, a winner of numerous first prizes in Scotland, among which may be mentioned first at the Highland Show. She is a daughter of the noted Prince Romeo. Last season, Baron's Peer was engaged by the Duke of Portland for service on his estate. If he had not been sold to Canada, he would have been hired to go to the same district this year, as he proved satisfactory and a sure foal getter.

If experience counts for anything, Mr. Ben Davidson, Uxbridge, whose advertisement appears in this issue, should be and is amongst the best manufacturers of fanning mills and beehives, as he has been in the business over forty years. His special line is a large warehouse mill, which will run through 100 bushels of grain an hour, and can be used either by hand or power, is thirty-two inches wide, and the excellency of its work in either grain or grass seed has been attested by the most exacting trials. Also farm fanning mills and a small mill to attach to threshing machine are made here of best material and finish. That the hives are of right kind for our climate is shown at the factory by one hundred hives of bees, which have come safely and well through the winter. The hives are made so that they can be encased in chaff, thus ensuring the proper temperature for the most rigorous winter. All kinds of bee supplies are made by the firm: Bee-hives, honey extractors, section boxes, smokers, foundation comb, etc. To those intending to purchase in either of the above lines we can confidently recommend them to send to Mr. Ben Davidson, Uxbridge, for free circular and price list.

NOTICES.

FLOWERS OF ALL KINDS are among the influences that give to a house or lawn that best of all characteristics, the homelike appearance. Flowers of all kinds are valuable for this purpose, but for the busy people of to-day the perennials are particularly useful. Nothing can so much lend attractiveness to surroundings as a collection of these hardy plants, such as is offered by Webster Bros., of Hamilton. This firm make a specialty of flowers, and are prepared to supply the trade with the very best that can be secured. Notice their special offer on another page.

THE NEW FIELD ROOT—During the past few years there has been a big demand for sugar beets for feeding purposes, but they have been found to be either too difficult to harvest or not yielding a paying crop. The new root, Rennie's Giant Sugar Mangel, is rapidly taking the place of sugar beets and mangels for general crop. This new feeding root possesses in a high degree the essential elements of stock food, and yields enormous crops, as heavy as the Mammoth mangel. The roots keep longer than either mangels, sugar beets or turnips, and make the very best of feed for hogs, as well as cattle, horses, and poultry. The seed is sold by nearly all the leading dealers, and progressive farmers should plant a good acreage this season.

HIGH-CLASS Shorthorns

Now offering 12 bulls, reds and roans, from 6 to 24 months old—the thick, fleshy kind—and a few heifers. Also Clydesdale horses.

JAS. McARTHUR, Goble's, Ontario.

SHORTHORNS:
JILTS and MARAS: 6 heifers from 1 to 3 years old; 5 with calves at foot and in calf again to Imp. British Statesman. Also two young bulls (roan).
LOUIS ELLARD, Loretta P. O., Beeton Sta.

SHORTHORNS FOR SALE.
Three young bulls of choicest breeding and quality; also cows and heifers.
ALEX. FLEMING, Jr.,
Owen Sound Station. Kilsyth, P. O., Ont.

For Sale: One registered **SHORTHORN BULL** 15 months old, from a good milking strain. Apply to **W. B. ROBERTS,** Sparta, Ont.

MERCER'S SHORTHORNS

Comprise Missies, Stamfords, Floras, Clarets, Princesses, Red Roses, Young Sterlings, Fashions and Matchless. They number 60 head for sale. There are several choice heifers, 17 heifer calves, 3 bulls fit for service and 4 bull calves. A few older females.

Thos. Mercer, Markdale P. O. and Station.

SHORTHORN CATTLE and Oxford Down sheep. Imp. Prince Homer at head of herd. Present offering: Young bulls and heifers from imported and home-bred cows; also a choice lot of young rams and ewes from imported sire. **JAMES TOLTON & SON, Walkerton, Ont.** Farm 3 1/2 miles west of Walkerton Station, on

SHORTHORNS. Imp. Christopher = 28859 = heads herd. A few choice young cows, heifers and bulls for sale, of milking strain.
A. M. Shaver, HAMILTON Sta. Ancaster P. O., Ont.

HAWTHORN HERD
Of Deep Milking Shorthorns.
FOR SALE: Four young bulls, from 8 to 24 months old, from A1 dairy cows. Good ones.
WM. GRAINGER & SON, Londesboro, Ont.

Greengrove Shorthorns Number 35 head of choice Scotch families. For sale: Several young bulls, by Wanderer's Last, Imp. Fitz Stephen and Freebooter. Females of all ages.
W. G. MILLSON, Goring P. O., Markdale Station.

W. G. PETTIT & SONS
FREEMAN, ONT., CAN.,
Importers and breeder of

Scotch Shorthorns

and SHROPSHIRE SHEEP,
make special offering for January and February.
2 imported bulls coming 2 years old,
4 bull calves, from 8 to 12 months old,
from imported sire and dam.
6 bulls, 10 mos. to 2 yrs., by Imp. sire.
Imp. and home-bred cows and heifers of all ages.
Our entire flock of Shropshire sheep, 75 head.

JAS. GIBB, SUNNYSIDE STOCK FARM, Brookdale, Ont.
BREWER OF **SHORTHORN CATTLE.** Stock for sale

JOHN DRYDEN & SON,
BROOKLIN, ONTARIO,
BREEDERS OF
CRUICKSHANK SHORTHORNS AND OCHOICE SHROPSHIRE SHEEP.
Five choice young CRUICKSHANK bulls. Straight, smooth, low-down and of show-yard type. Visitors welcome.

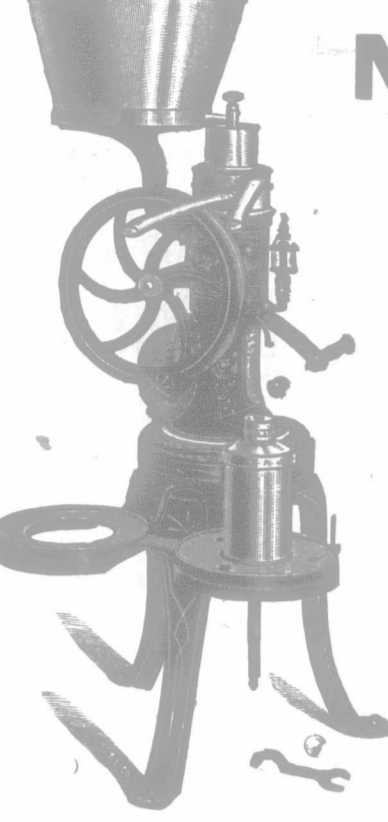
FOR SALE: 27 Head of Imported
SHORTHORNS
just landed from quarantine. Also one Clydesdale stallion.
JOHN ISAAC, Markham, Ont.

SCOTCH SHORTHORNS FOR SALE.
2 imported bulls; 2 from imp. sire and dam; 2 home bred. Females of all ages, imp. and home bred.
ALEX. BURNS, Rockwood P. O. and Sta., G. T. R.

The "STAY THERE"
Aluminum Ear Markers
are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. At any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address
WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.

Kindly mention the FARMER'S ADVOCATE.

WHAT THE NATIONAL WILL DO.



It will increase the yield of butter about 1 lb. per week, and about 30 to 60 lbs. per year, and will pay 8% on its cost price annually with one cow, and pay for itself in one year with 12 to 15 cows.

It will be placed on trial beside any other Cream Separator and prove to be superior in construction for convenience, easy operating, cleaning, close skimming, quality of cream and butter, style, fine finish and lasting service.

The only Cream Separator having its bowl and all parts made and finished in one shop in Canada under the supervision of the best Cream Separator experts obtainable.

The bowl is not filled with innumerable complicated parts to adjust and wash every time it is used. It has no stable-tainted, enamelled casing into which the milk and cream is discharged, that requires hot water at the barn to wash it every time it is used.

The National is designed for convenience and to overcome every objectionable feature found in other Cream Separators. A sample machine sent for a free trial to prove all that is claimed for the National.

NATIONAL No. 1A.
Capacity, 450 to 500 lbs. per hour.

NATIONAL No. 1.
Capacity, 330 to 350 lbs. per hour.

NATIONAL B.
Capacity, 250 lbs. per hour.

Give the National a trial. Send for particulars to any of the following general agencies:

The CREAMERY SUPPLY CO., Guelph, for South-western Ontario.
The T. C. ROGERS CO., Guelph, for Ontario North and East.
JOS. A. MERRICK, Winnipeg, Man., for Manitoba and N.-W. T.
JOHN A. ROBERTSON, 108 Union Avenue, Montreal, Quebec.

The Raymond Mfg. Co. of Guelph, GUELPH, ONT. LIMITED.

PINE GROVE SHORTHORNS AND SHROPSHIRE.

Our herd comprises over 150 females, including our last importation of 30 head, all of the most esteemed strains. Of Shropshires, we offer a few choice rams, also high-class ewes bred to first-class rams. Address

W. C. EDWARDS & CO.,
Rockland, - - - - - Ontario.

SHORTHORNS

WE ARE OFFERING FOR SALE a grand lot of young imported Scotch cows and heifers with calves at foot or safely in calf to the best imported bull obtainable.

Herd Numbers 150 Head.

Send for New Catalogue.

VISITORS WELCOME, AND CORRESPONDENCE PROMPTLY ATTENDED TO.
TELEGRAPH OR TELEPHONE.

H. CARGILL & SON,
Also have a choice lot of Oxford Down sheep, either sex, at reasonable prices. om Cargill, Ontario, Canada.

12 SHORTHORN BULLS 12

First-class Scotch Breeding.

CHOICE QUALITY. LOW PRICES.

WRITE FOR CATALOGUE. om **H. SMITH, EXETER, ONTARIO.** Farm adjoins Exeter, on the G. T. R., 30 miles north London.

IMPORTED AND CANADIAN-BRED SHORTHORNS

FOR SALE:

Number of 2-year-old heifers, bred to Bapton Chancellor (imp.). Also young imported cows (with calves at foot), and a few choice Canadian-bred bulls and heifers of popular breeding. Address:

H. J. DAVIS, WOODSTOCK, ONT.

MAITLAND BANK STOCK FARM

Seven excellent young bulls, straight Scotch breeding, also young cows and heifers, imported and home-bred, for sale. Prices moderate. om

Stock and Telegraph and Telephone office adjoin the farm. **David Milne & Son, Ethel, Ont.**

GOSSIP.

Mr. John Campbell, of Fairview Farm, Woodville, Ont., in ordering a change in his advt., reports unusually good success with his stock, and especially with his Shropshire sheep, the flock this season having exceeded any former record in the lamb crop as to numbers and apparent quality. The 1902 late fall importation, which met rough treatment on the way over the sea, is getting into proper shape once more. The ram and ewe lambs, with the shearing ewes, nearly all several times winners in England, are now promising to be a source of pleasure and profit to the owner. In his new advt., in this issue, Mr. Campbell makes a statement which should be very encouraging to his coming customers.

Mr. F. H. Neil, of Lucan, writes us, under recent date: "I have just delivered a carload of Shorthorns to a Michigan firm. I am receiving numerous enquiries through your valuable paper for Shorthorns and Lincolns, and wish to say to your readers that we have a very choice selection of both on hand, and are prepared to fill orders on short notice. We have quite a large crop of very choice Lincoln lambs this year, and intending purchasers will do well to write early, as orders for fall delivery are beginning to come in. In Shorthorns, we have a splendid lot of young heifers and bulls from imported Scotch sires. Can also spare a few young cows and heifers, bred to our present stock bull, Star Chief."

The buoyant feeling among breeders is well exemplified in Mr. L. K. Weber's recent letter to the "Advocate." In it he says: "The demand from our herd has been good and prices fair these last two years. Most of my shipments have been made to order, to which special attention is given. Shipments have been made as far east as Fredricton, N. B., and as far west as British Columbia, and to different points intervening, all of which have given every satisfaction. The young things out of our present stock bull, Goldfinder, are an excellent lot, mostly rams and nearly all heifers. We still have four bulls—two reds and two roans—from ten to fifteen months old, of excellent size and quality; also, two two-year-old heifers, in calf to Goldfinder, due in July, all of which will be sold at let-live prices. By breeding good cattle, fair dealing, and the use of the 'Advocate,' my business has been steadily increasing, as every head sold brings new customers."

DOMINION INDUSTRIAL EXHIBITION.

Mr. Henry Wade, Secretary, writes: "At a meeting of the Executive Committee of the Dominion Shorthorn Breeders' Association it was decided to change the dividing line of ages in the yearling and calf classes. Heretofore, the first of February has been the date between senior yearlings and senior calves, but for the future the first of January will be the dividing date in both yearling and calf classes.

Senior yearlings to be calved on or after September 1st, 1901, and before January 1st, 1902.

Junior yearlings, on or after January 1st, 1902, up to September 1st, 1902.

Senior calves to be born on or after September 1st, 1902, and before January 1st, 1903.

Junior calves, on or after January 1st, 1903, up to September 1st, 1903.

They also recommended that classes be provided for steers, either pure-bred or grades, sired by a Shorthorn registered bull, on the same basis as to ages as the above division is for yearlings and calves in the regular class.

This steer class is a new departure, and will, no doubt, be appreciated by breeders of cattle.

The Dominion Shorthorn Breeders' Association have voted the sum of \$1,500, in case it is duplicated by the Industrial Exhibition, and no doubt the prize-winners at this show will be kept for national honors at the coming St. Louis Exhibition, to be held in 1904.

J. & W. B. WATT
BREEDERS AND IMPORTERS OF

Shorthorns, Clydesdales and Berkshires

We breed our show cattle and show our breeding cattle.

The imported bulls, Scottish Beau, Viceroy and Scottish Peer, head the herd.

Imported and home-bred cows and heifers for sale. A few choice young bulls on hand.

Our herd at Toronto won three firsts, a second and third out of five herd classes. om

Salem P. O. and Telegraph Office. Elora Sta., C. P. R., G. T. R.

ARTHUR JOHNSTON,
GREENWOOD, ONTARIO,


Offers for sale at times' prices, 6 young SHORTHORN BULLS, from imp. dams and by imp. sires.

6 YOUNG BULLS of purest Scotch breeding.

10 YEARLING and 8 TWO-YEAR-OLD HEIFERS.

Pickering Station, G. T. R. Claremont Station, C. P. R. om

Spring Grove Stock Farm
Shorthorn Cattle and Lincoln Sheep.



HERD prize and sweepstake at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Suabeam, imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply om

T. E. ROBSON, ILDERTON, ONT.

SCOTCH COWS and HEIFERS

of good quality, in calf to one of the great Scotch sires of the period, and a few young bulls, for sale at prices you can stand. Shropshire rams and ewes of greatest individual merit and breeding, for sale as usual. Ask for catalogue.

Representative in America of Alfred Mansell & Co., College Hill, Shrewsbury, Eng. om

ROBERT MILLER, - STOUFFVILLE, ONT.

SCOTCH SHORTHORNS AND SHROPSHIRE.

Present offering:—Have still on hand one bull and four heifers, and a few cows. Shropshires of both sexes and all ages. om

BELL BROS., Bradford P. O. and Station.

SHORTHORNS. Lady Fannys and Beautys for sale 7 heifers, from 1 to 3 years old, some of them in calf to Prince Eclipse 33049. om

James Caskey, Tiverton P. O., Kincardine Sta.

SHORTHORNS.

Dark red bull calf, Blue Ribbon 2nd, 15 months old, sired by Blue Ribbon (imp.) 17095 (63703), dam by Royal George (imp.) (64728). Bull calf, 9 months old, dark red; also yearling and two-year-old heifers. om

JOHN McFARLANE, - DUTTON, ONT.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramsden, 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

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

ROSEVALE SHORTHORNS.

Herd comprises Augustas, Polyanthus, Crimson Flowers, Minas, Strawberries and Lavinias. For sale, both sexes, the get of Imp. Marengo Heydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror. om

W. J. Shean & Co., Owen Sound P. O. & Sta.

GRANDVIEW SHORTHORNS

Are made up of Floras, Meadowsweets, Mary Booths and Ryan Duchesses. For sale, 3 bulls, extra nice, thick animals, sired by Fergus Chief, Royal Beau and Golden Count; also a few females. om

J. H. Black & Son, Allanford P. O. & Station.

H. K. FAIRBAIRN
ROSE COTTAGE,
Thedford P. O. and Station.

One bull 18 months old, 10 cows, 3 yearling heifers, 1 two-year-old in calf, 4 bull calves, 3 heifers, all the get of Royal Prince = 31241 =. om



BABY'S OWN SOAP

prevents roughness of the skin and chapping.

Best for toilet and nursery use. **ALBERT TOILET SOAP CO., Mfrs. MONTREAL.**

Orchard Hill Shorthorns. I am now offering 13 heifers from six months to two years, 4 bulls from 10 to 13 months old, and 7 very heavy milking cows. Here is a rare chance to get stocked with pure-bred cattle at reasonable terms. **A. Johnston, Vandevoort P. O., Markdale Sta.**

SHORTHORNS. Importer and breeder of choice Shorthorns. Scottish Hero, 156726 at the head of herd. **JAS. A. CREKAN, Shakespeare, Ont.**

PENNABANK STOCK FARM Three choice Shorthorn bulls from 12 to 14 months old, solid reds. Prices reasonable. Also a few Shropshires left, of choice quality and breeding. **Hugh Pugh, Whitevale, Ont.**

SHORTHORNS and CLYDESDALES. We have for sale five bull calves, from 8 to 24 months, from imp. sire and dams; also six extra good stallions, from two to six years old.

JOHN MILLER & SONS, BROUGHAM, ONT. CLAREMONT STATION, C. P. R.

SHORTHORNS (IMP.)

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

Scotch Shorthorns

Duchess of Gloster and Mina strains. Three bulls, ready for service. Also a few choice heifers.

HARRY SHORE, White Oak, 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 n-w for sale.

A. W. SMITH, AILSA CRAIG STA., G. T. R., MAPLE LODGE P. O., ONT. 3 1/2 miles.

Shorthorns, Berkshires and Leicesters. FOR SALE: Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Boars and sows fit for breeding, and young pigs.

ISRAEL GROFF, ALMA, ONTARIO.

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.

REDMOND BROS., Millbrook Sta. and P. O., 40 rods north of Stouffville station.

BONNIE BURN STOCK FARM, offers Scotch Shorthorns; choice Shropshires and Berkshires from imported and Canadian bred sows. All at farmers' prices. Inspection invited.

RUSSELL, STOUFFVILLE, ONT.

SHORTHORNS. Young, vigorous and pure-bred sheep and goats.

SHORTHORNS

One imported Scotch Shorthorn bull. A few cows and heifers.

THOS. RUSSELL

GOSSIP.

A sale is advertised, in another column, of Kent or Romney Marsh rams, which will take place on Friday, October 3rd, 1903. This English breed of sheep are long-woolled, of good size, and are said to be remarkably suited for bleak, flat lands. Catalogues and other information regarding the sale will be furnished on application to W. W. Chapman, Fitzalan House, Arundel St., Strand, London, Eng.

O'Neil Bros., Southgate, Ont., write: "We received from quarantine, on March 31st, the nine Herefords recently imported from United States, including the bull, Onward 120463, to head our herd. This remarkable youngster is twenty-seven months old, and weighs in medium condition 1,900 lbs. His sire, March On, imported by the late C. S. Cross, and later sold to head the herd of W. S. Van Natta & Son, Fowler, Ind., has probably sired more prize stock than any bull ever imported to America; while his dam, Columbia 58791, will be remembered as the dam of the so successfully exhibited Christopher and Columbine. He is of the large type of Hereford, wonderfully smooth and deep, with quarters well let down on hocks and padded full of meat, as is also his back and loins. He is of the heavy-fleshing quality, with a very mellow, pliable hide, and those who have seen Imp. Protector, formerly champion of England, can readily form an idea of this coming young bull. He carries the blood of Grove 3rd three times, through the mighty Rudolph 13478, also having the blood of Horace three times in the female line, then he has the blood of Lord Wilton and Anxiety, through their best sons and daughters; in fact, it would be difficult to find a bull of choicer breeding or individual merit. In females, there is Imp. Portia 111620, formerly from the Weavergrace herd of T. F. B. Sotham, Chillicothe, Mo., who purchased her from the importer. She was then acquired by that prince among Hereford breeders, Mr. Frank Nave, of Attica, Ind., and while there was mated to Protector, to whose service she now has at foot a choice bull calf, and is also bred again to him. Her sire, Post Orbit, was a most successful sire, and his get, whenever imported to America, have been much appreciated in breeding herds and the showing. Next comes Salisbury Lass 86083, by Salisbury (imp.), and at one time the highest-priced Hereford bull ever sold at auction, bringing \$3,000 in the late cattle depression. He was a double Lord Wilton and Grove 3rd. Her dam, Stella, is a granddaughter of St. Louis, and she also has two other crosses of Garfield blood, through the great Earl of Shadeland 22nd, as well as crosses of Sir Richard 2nd and Lord Wilton. She was bred at Sunny Slope, and is now four years old, and as a broad-backed, thick-fleshed cow has few equals. She has a bull calf by the \$2,000 Pretorian at side, and is now in calf to the \$6,000 Imp. Protector. Another in the lot is Thora Velta 92278, a very choice four-year-old, with a bull calf at side by Golden Star. This is one of the best calves we have yet seen, and if she proves a breeder of such youngsters will soon be heard of. She is a show cow of the first water, and she carries the blood of the champion Fowler 12899, through Cherry Boy and Sweepstakes, her sire, he being from an Archibald cow. Her dam is an Anxiety-bred cow, through such channels as Anxiety 3rd and Assurance and Thegreham. We also imported for Mr. Thos. Skippen, Hyde Park, the two-year-old heifer, Lemon 129833, by Dixie, who is a very intensely-bred Anxiety, carrying that blood through Anxiety 4th, Don Carlos and Don Juan, while her dam is Lady Fowler, by Lord Fowler, by Old Fowler. She has a bull calf, Lenox, by her side, and is bred and safe in calf to Mr. Nave's Imp. Protector. We have made some very good sales of young bulls and cowboys being the lovers of good cattle to respect our herd, also, we desire to thank our customers, who are nearly all readers of the Farmer's Advocate, for their patronage, and the advertisement for our Hereford sale, which is now being held at the following address: O'Neil Bros., Southgate, Ont."

I GUARANTEE A \$5.00 PACKAGE OF BARREN KOW CURE postpaid, to make any cow under 10 years old breed, or refund money. No trouble, no risk. Given in feed twice a day. **L. F. Selleck, Druggist, Morrisburg, Ont.**

A SNAP IN JERSEYS. Three fine young cows, bred, and a good young bull, not akin to cows or progeny. Price, \$225 for the four. Write for particulars. **W. W. EVERITT, Dun-Edin Park Farm, Box 562, Chatham, Ont.**

JERSEYS: Present offering: Two bulls, 8 months old; solid color; choice animals; sired by Nero of Glen Rouge, and out of deep-milking dams. **E. B. MINMAN & SONS, GRAFTON, ONT.**

Jersey Bulls

Out of tested show cows and sired by Brampton's Monarch (imp.). As we have the largest herd of pure-bred Jerseys in Canada, we are able to offer good choice. Come and see or write for what you want. **B. H. BULL & SON, C.P.R. and G.T.R. stations, Brampton, Ont.**

Best Jersey Bulls AT LOWEST PRICES.

Owing to the large sale of registered Jersey cows, all in milk (18 head), that I have just made, I offer several bull calves, of unsurpassed breeding and from tested dams, at prices that will surprise purchasers. This, because the sale of so many cows in profit leaves me short of milk for the present. Also some choice heifers in calf.

Mrs. E. M. Jones, Brockville, Ont. Box 324.

JERSEYS, COTSWOLDS, YORKSHIRES, Registered Jersey cattle, Cotswold sheep and Yorkshire pigs for sale. A few nice heifers, 6 mos. to 2 years, and 1 yearling bull, by Count of Pine Ridge, grandson of Adelaide of St. Lambert, record 34 lbs. milk daily, on **WM WILLIS, NEWMARKET, ONT.**

SUNNYLEA FARM. Jerseys—6 yearling bulls; females for sale; any age. Tamworths—30 boars and sows, different ages. Shropshire sheep—rams and wags of good breeding. Prices reasonable. **H. E. WILLIAMS, Knowlton, P. Q.**

Lyndale Holsteins

We are now offering a number of young bulls, fit for service, sired by Lady Waldorf's De Kol, Spring calves of both sexes.

BROWN BROS., Lyn P. O. and Station.

30 HOLSTEIN CALVES

For March, April and May delivery. Also cows and heifers, sired by such noted stock bulls as Pietze De Kol 2212, and Maud's Prince of Elgin 2087, and from imported and home-bred cows with great butter and milk records. Pedigrees furnished. All express charges paid, and safe arrival guaranteed. Write for prices **H. George & Sons, Crampton, Ont.**

Spring Brook Holsteins.

One cow 4 years old, three 3-year-olds, two 2-year-olds, one yearling heifer, 4 heifer calves, one bull calf: all De Kols. Quality unsurpassed. Tamworths of all ages for sale. Write at once for bargains.

A. C. HALLMAN, - - Breslau, Ont.

Brookbank Holsteins

16 to 25 lbs. of butter in 7 days' official test are the records of this herd of Holstein cows. Heifers of equivalent records. Bulls for sale whose sires and dams are in the Advanced Registry, with large official butter records.

GEO. RICE, Currie's Crossing, Ontario OXFORD COUNTY.

DEEP-MILKING STRAIN AYRSHIRES AND GUERNSEYS

Young stock of all ages for sale, of superior breeding. 3 excellent Guernsey bulls, 6, 12 and 18 months; 2 Ayrshire bulls, 18 months; 1 fine young bull, white, with few brown spots, age 6 months. Write for information. Prices reasonable. Address

ISALEIGH GRANGE FARM, - - DANVILLE, QUE.

AYRSHIRES

WATSON OGILVIE, PROPRIETOR.

Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1900; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals. The cows are all imported, and were carefully selected for strength and constitution, style, size of teats, and milk (quantity and quality). The herd is headed by Douglassdale (imp.), Black Prince (imp.). Stock, imported and home-bred, for sale at all times.

ROBERT HUNTER, Manager.

Near Montreal. One mile from electric cars. **Lachine Rapids, P. Q.**

HOLSTEIN-FRIESIANS Three Holstein yearling bulls and one heifer (in calf) for sale. Apply to **WM. SUHRING, Sebringville, Ont.**

7 HOLSTEIN BULLS FOR SALE.

Five yearling bulls, sired by a grandson of De Kol 2nd; 1 bull, rising 2 years old, and 1 aged bull, Korndyke Queen De Kol's Butter Boy, of Korndyke and De Kol breeding. **JAS. A. CASKEY, Madoc, Ont.**

Riverside Holsteins

8-BULLS FOR SALE—8 from 3 to 10 months old, sired by Victor De Kol Pieterje and Johanna Rue 4th Lad. These young bulls are from Advanced Record of Merit stock.

MATT. RICHARDSON & SON, Baldimand Co., Caledonia, Ont.

IF YOU WANT A HOLSTEIN BULL, bred from producers, and that is again capable of siring producers, at a living price, write

H. BOLLERT, Cassel, Ont.

HOLSTEINS, TAMWORTHS, COTSWOLDS.

Present offering: Young boars and sows fit to breed, and younger ones. Choice animals. Ram and ewe lambs and two 2-shear rams. Perfect covering. **E. O. MORROW, Hilton Ont., Brighton Stn.**

HOLSTEINS & TAMWORTHS.

Two bull calves, 8 and 9 months; 3 yearling heifers, bulls and heifer calves, all double De Kols. In Tamworths we have 3 sows, 5 months old; 25 March boars and sows. Bargains if taken at once. Enquiries promptly answered. Write or call.

BERTRAM HOSKIN, THE GULLY P. O., Grafton Station, G. T. R.

Maple Park Farm Holsteins. Netherland De Kol (Imp.) stock bull. Stock of all ages for sale from the great De Kol Pieterje Clothilde and Barrington strains. Home of the great cows, Edgeley Mol, milk record 104 lbs. in 24 hours; Emery Beauty, the great public test winner, and many others with heavy records. **SIDNEY MACKLIN, Streetsville P. O. and station, C. P. R.**

HOLSTEIN BULLS 4 For sale: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aaggie, and Tritonia Prince, and out of imported females that have proven their worth at the pen. **THOS. B. CABLAU & SON, Warwick.**

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. **E. W. WALKER, Utica P. O. Shipping stations: Port Perry, G. T. R.; Myrtle, C. P. R.**

CHOICE AYRSHIRES.

Having several (5) Feb., March and April bull calves, and as we have to pull down all our stabling for rebuilding, we offer them at \$15 each, with registered pedigrees. They are bred from imported sire, heavy milking dams, and are good calves. We trust every dairyman and breeder will avail himself of this offer. This is the only time this "ad." will appear. See Stock Notes. **ALEX. BUME & CO., Hoard's Stn., G. T. R. Menie P. O.**

W. F. STEPHEN, Trout River, Que., breeder choice bulls fit for service, and several bull calves, sired by Klondike of St. Annes 2897, and from deep milkers, with good udder and teats. Carr's Crossing, 1 mile, G. T. R.; Huntingdon, 5 miles, S. L. & A. R.

Maple Cliff Dairy and Stock Farm

BREEDERS OF **AYRSHIRE CATTLE, HERKSHIRE and TAMWORTH PIGS.**

Special offer this month in young bulls of both breeds, fit for service. One young bull, 2nd at Toronto last year as yearling. Farm adjoins Central Experimental Farm. **R. REID & CO., Hintonburg, Ont.**

DEEP-MILKING STRAIN AYRSHIRES AND GUERNSEYS

Young stock of all ages for sale, of superior breeding. 3 excellent Guernsey bulls, 6, 12 and 18 months; 2 Ayrshire bulls, 18 months; 1 fine young bull, white, with few brown spots, age 6 months. Write for information. Prices reasonable. Address

ISALEIGH GRANGE FARM, - - DANVILLE, QUE.

AYRSHIRES

WATSON OGILVIE, PROPRIETOR.

Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1900; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals. The cows are all imported, and were carefully selected for strength and constitution, style, size of teats, and milk (quantity and quality). The herd is headed by Douglassdale (imp.), Black Prince (imp.). Stock, imported and home-bred, for sale at all times.

ROBERT HUNTER, Manager.

Near Montreal. One mile from electric cars. **Lachine Rapids, P. Q.**

AYRSHIRES

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ROBERT HUNTER, Manager.

Near Montreal. One mile from electric cars. **Lachine Rapids, P. Q.**

Kindly mention the FARMER'S ADVOCATE.

BEST and CHEAPEST IN THE MARKET.

Kemp's Instantaneous Sheep-Dipping Fluid.

1-gal. Imperial tin for 75c.

STRENGTH EQUAL TO ANY.

Instantly kills ticks and parasites on sheep and lambs. Improves and waterproofs the wool. A sure remedy for vermin, mange, etc., on horses, cattle, sheep, and dogs.

W. W. STEPHEN, Agent, MEAFORD, ONT.

FOR SALE

High-class IMPORTED AND HOME-BRED AYRSHIRES.

Including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write.

WM. WYLIE, - HOWICK, QUEBEC

Homecroft Stock and Dairy.

Ayrshires, Chester Whites, B. P. Rooks. Write us for best young bull in Canada. Some A 1 bull calves; also some beauties for young sows. See that you look up our chickens.

J. F. PARSONS & SONS, BARNSTON, QUE.

Springhill Farm Ayrshires.

FOR SALE

One bull 16 months old, three bulls 7 months old, all from imported sire and deep-milking dams. Females, all ages.

Robt. Hunter & Sons, Maxville, Ont.

DAVID A. MCFARLANE,

Breeder of high-class AYRSHIRES.

Young stock for sale from imported and home-bred foundation. Prices reasonable.

Springburn Ayrshires.

We are making an especial offering of five bulls, from 9 to 12 mos. old, bred by Lord Minto 10133, and out of producing dams. A grand, typical lot. Write quick, as we are selling cheap. H. J. WHITTAKER & SONS, North Williamsburg P. O.

SUNNYSIDE AYRSHIRES.

Our present offering is 10 heifers, from 10 mos. to 2 years of age; 1 bull, 6 mos. old, and 8 young cows—a rare good, straight-lined lot, and will be sold right. J. W. LOGAN, Allan's Corners P. O., Howick Sta., Que.

STOCKWOOD AYRSHIRES.

Our herd now numbers 40 head of all ages, with milk records from 40 lbs. a day up. Stock of both sexes for sale. Bulls a specialty. WATT BROS., Allan's Corners P. O. St. Louis Sta., near Howick, Que.

AYRSHIRES AND YORKSHIRES.

My Ayrshires are all bred from imported stock; Yorkshires from Mr. D. C. Flatt's imported stock. Choice young animals for sale.

James McCormick, Sr., Rockton, Ontario.

Menie Stock Farm

Choice young AYRSHIRE bulls and heifer calves, from 2 to 9 months old. Also cows and heifers all ages. Write WM. STEWART & SON, Menie, Ont.

Tredinnock Ayrshires.

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchincrain, 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. G.T.R. & C.P.R., 20 miles west of Montreal.

High-Class Ayrshire Cattle

FOR SALE—Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prize-winners bred from this herd, including Tom Brown and White Floss, sweepstakes prizewinners at the age of 10 months. DAVID BRUNING & SON, Williamstown, Ont.

NETHERLEA AYRSHIRES.

Present offering: 3 bulls fit for service, prize-winners; also a few young females, sired by Napoleon of Auchincrain (Imp.), whose dam's record was 45 lbs. a day, and all of them out of record cows. T. D. McCALLUM, Belleville P. O. and Station, Quebec.

GOSSIP.

From Mr. John Gardhouse, Highfield, we recently received the following interesting news: "Imp. Scottish Prince, which arrived home from quarantine a short time ago, is doing well. He was bred by Mr. Alex. Watson, Auchincrain, Skene, Aberdeen, Scotland, and belongs to his well-known Magazine family. His sire, Golden Champion (78977), was bred by Mr. Wm. Duthie, and is a worthy son of the famous Lovat Champion (74948). From his breeding and general appearance, we think he will make a worthy successor to Imp. Prince Louis, our present stock bull, which we are still using among the older cows, but will offer him for sale in a short time. Our stock is in excellent condition, and have wintered well. Sales have been good. All our young bulls are sold. We still have a number of young cows and heifers, which we are offering for sale at the right prices, bred to imported bulls, Prince Louis and Scottish Prince."

MAMMITS OR GARGET.

Symptoms and Treatment of the Disease.



THIS disease is an inflammation of the udder or mammary gland. Inflammation of the udder usually results from blows or injury or lying on cold ground; from only partially taking the milk; from exposure to cold; sudden change of food; over-feeding of milk-producing materials; allowing animal to go for too long a period without milking.

Symptoms.—In severe cases, the disease comes on with a chill and swelling of the udder, which is hot and painful and hard to the touch. The breathing is increased, and the temperature of the body is raised, and the animal evinces great pain.

Treatment.—In severe cases, a physic should be given at once, unless the bowels are already quite active. A pound of Epsom salts in a half gallon of warm water should be given as a drench. The drench should be administered slowly.

If there is much pain and the temperature runs high, ounce doses of sweet spirits of nitre with fifteen drops of tincture of aconite root should be given every four hours until the temperature is reduced. The udder should be bathed frequently with warm water, and all the milk possible drawn at least three times a day. The udder should also be gently hand rubbed.

Support to the udder by a wide bandage passing under the udder and fastened up over the back will also be of great advantage. Hoies should be made in the bandage for the protrusion of the teats. An ointment made of a dram of solid extract of belladonna and a dram of gum camphor rubbed up in two ounces of vaseline gives excellent results in allaying pain and inflammation.

Throughout the treatment of garget or mammitis tonic doses of Dr. Hess' Stock Food should be given. The amount given is small—one to two tablespoonfuls—it tones the vital organs and establishes good health.

In every package of Dr. Hess' Stock Food is a little yellow card entitling the purchaser to free consultation with prescriptions from the eminent veterinarian, Dr. Hess.

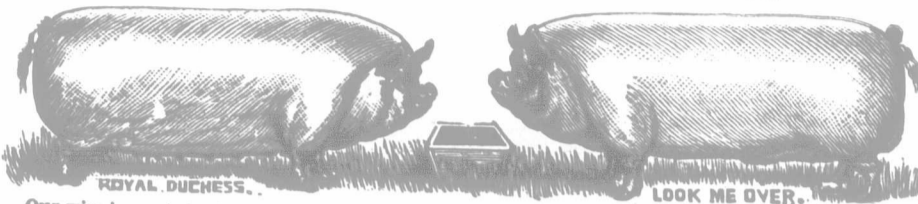
Dr. Hess is a graduate of famous medical and veterinary colleges; therefore, no unprofessional manufacturer can equal Dr. Hess' Stock Food; 100 lbs., \$7.00; 50 lbs., \$3.70; 25 lbs., \$2.00; 12 lbs., \$1.00; 7 lbs., 65 cts. Fed in small dose. Sold on written guarantee.

Dr. Hess has written a book on the diseases of stock and poultry—the only complete treatise for farmers and stockmen. Consulted and commended by leading veterinarians.

Write and state what stock you have, what stock food you have fed, also mention this paper. Address Dr. Hess & Clark, Ashland, Ohio, U. S. A., and you will receive one of these valuable books free, postage paid.

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 ad, 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. on Telephone: Millgrove, Ont.

HILLCREST HERD OF Large English Berkshires

My brood sows are imported or show animals, and the sires are big, long fellows of young pigs, and a few young sows recently bred. Can supply pairs not akin. Enquiries promptly answered. Vine station, G.T.R.—near Barrie. Jno. Lahmer, Vine, Ont.

Farnham Oxfords and Shorthorns

My present offering—125 one and two year old rams, sired by Bryan's 125, Hampton Hero 4th, Royal Windsor 4th, and Kempsford Hero 8th (all imported), 35 of which are flock headers, the balance strong, vigorous ranch rams. Also 50 choice yearling ewes, and the rare, nice ten-month-old bull, Royal Arcanum 45133, by Imp. Sittlyton Conqueror, and four heifers, from 10 to 20 months old, by 20th Crown Jewel. Gulph four miles.

HENRY ARKELL, Arkell P. O. and Station.

AYRSHIRE CATTLE

SHROPSHIRE SHEEP. B. P. ROOK FOWL and 20 YOUNG LARGE ENGLISH BERKSHIRES FOR SALE.

J. YUILL & SONS, on Carleton Place, Ont.

W. W. BALLANTYNE, Stratford, Ontario, offers three YEARLING AYRSHIRE BULLS

of choice breeding, and right good individuals, at reduced prices, to make a clearance this month. Also bull calves, all ages, and heifer calves, yearlings and two-year-olds.

EUROPEAN ADVERTISEMENTS.

English Berkshires

About the end of June the well-known prize-winning herd, the property of the EARL OF CAERNARVON, will be sold without reserve, at HIGHCLERE CASTLE, NEWBURY. This herd contains more prize-winning blood than any other English herd. At the record sale at Biltmore on Feb. 3rd last (221.90 for 61 head of English Berkshires), several of the pigs sold were bred at Highclere sows, thus showing how highly-valued this blood is, and intending purchasers should not miss this opportunity of obtaining it. Full particulars from

W. T. HALL, HIGHCLERE FARM, NEWBURY, ENGLAND.

English Shorthorns.

Booth and Bates Shorthorns, topped with Cruick shank bulls. Young cows, bulls and heifers always on hand for sale. Eligible for the American head-book. Royal and Highland prizewinners included for the last two years. Close on \$400 won in prizes last year and this.

WM. BELL, Ratsborough Farm, Alnwick, Northumberland, Eng.

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.

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

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England, or to our American representative, Robert Miller, Shouffville, Ont., Canada.

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The breed for hardiness and early maturity. The highest average daily gain, alive, 2 lbs. 8 3/4 ozs., and also the highest percentage, 68.02, of carcass to live weight of any animal, for its age, at Smithfield Show, was given by Mr. Gerald Ward's first-prize Sussex steer at the age of 681 days. Leading honors won at all the principal shows. Selections always on sale. Apply G. Wards, West Farleigh, Kent, England.

NO HUMBUG Three in One.

Swine V. Stock Marker and Calf Dasher. Stops ewes from rooting. Makes 48 different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If 1 fails, send balance. Pat. May 6, 1902. Hog and Calf Marker only 75c. FARMER BRIGHTON, FAIRFIELD, IOWA.

FOR SALE: Six Shropshire shearing rams, and two roan yearling Shorthorn bulls, by imported Duthie bull, Count Sarcasm. For further particulars apply to L. BURNETT, Greenbank P. O., Ont.

FAIRVIEW SHROPSHIRE

A great lot of good young lambs. Home-bred and imported shearing rams. A beautiful lot of home-bred ewes. Whoever was to such, let him write. All 1902 customers fully satisfied, and I am determined to please each and every 1903 customer by furnishing good stock and dealing fair.

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Dorsets & Chesters Young stock in Dorset and Chester White Hogs of good quality for sale, reasonable. R. H. HARDING, THORNDALE, ONT. "Mapleview Farm."

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Lincoln Sheep and Shorthorn Cattle Bred from best English stock. Bred from Scotch bulls of fashionable families. CAN SUPPLY EITHER IN CARLOAD LOTS.

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Imported and home-bred stock, prizewinners at all the leading fairs. ELGIN F. PARK, on Box 31, Burgessville, Ontario, Canada.

IMP. COTSWOLD SHEEP

Five rams (year-olds), both sires and dams imp.; 10 ewes (year-olds), sire imp. Also this year's lambs, both sexes; Yorkshire and Tamworth hogs.

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W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT.

Importer and breeder of Shropshire sheep. My flock was represented at Toronto, and won first on shearing ram, first and second on aged ewes, and second on the pen. First time exhibiting. In need of a first-class yearling ram, imported or home-bred, write! Your wants can be supplied, and at prices consistent with quality. Have a choice lot to choose from, and can guarantee satisfaction. Come and see them, or a card will bring them.

Station One-half Mile from Farm, Wabash and G. T. E.

SHROPSHIRE FOR SALE.—Shearing rams, ram lambs, ewe lambs, also shearing and older ewes, about 50 head all told. All registered or eligible. Low-set, well covered, in fine condition and form. Sires from Campbell and Dryden flocks. MALCOLM McDOUGALL, on Tiverton, Ont.

SHROPSHIRE.

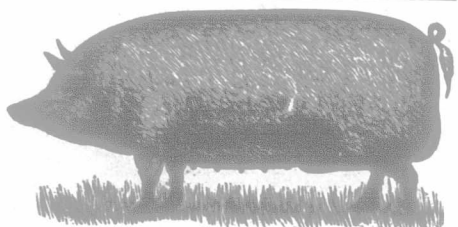
One well-covered yearling ram, with good bone, from imported Mansell ram, and four home-bred ram lambs. Write for prices. KOWAT BROS., HILLSDALE, ONT.

This season I am offering for sale
SHROPSHIRE
lambs of both sexes. Also shearing ewes and 2 shearing rams. Prices right and quality guaranteed. o GEO. HINDMARSH, Ailsa Craig, Ont.

LINDEN OXFORDS
at Toronto, 1902, won 1st open pen; 1st and 2nd Canadian pen; 1st and 2nd aged, yearling and ram lambs; 1st, 2nd and 3rd yearling ewes and ewe lambs. All these ewes retained in flock and the best rams o R. J. HINE, Dutton, Ont.

FOR SALE.
Chester White swine of good bacon type, and Shropshire sheep. Write for prices. o W. E. WRIGHT, Sunnyside Stock Farm, Glanworth P.O., Ont.

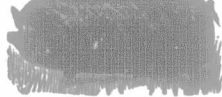
Newcastle Herd of Tamworth Swine
Have for a number of years taken a share of the best prizes offered at Toronto Exhibition, but this year has excelled all past records, having taken the sweepstakes for the best herd; also both silver medals for best Tamworth boar and best Tamworth sow, besides many other prizes in the various classes. Our present offerings are: A few choice young sows, 4 to 5 months old; 2 yearling sows, in pig; and we are now booking orders for spring pigs, both sexes. Enquiries promptly answered. om COLWILL BROS., NEWCASTLE, ONT.



One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a specialty. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices. o

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WILLOW LODGE BERKSHIRES
Herd headed by Long-fellow 10th of H. F., assisted by the noted prize-winner, Highclere Crown 3rd. Sows, the best money will buy, and are winners. Young stock of both sexes and all ages for sale, not akin. om W. WILSON, Snelgrove, Ont.



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Imported and Canadian-bred Yorkshires, from stock of the best British herds. A choice lot of boars, ready for service, and a number of sows being bred to Imported Dalmeny Long Sam, for sale. Also young pigs, all ages. om H. J. DAVIS, Box 518, Woodstock, Ont.

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The oldest-established registered herd in America. We have 12 imported boars and sows and 20 home-bred animals breeding, and have a limited number of young boars and sows for sale, suitable for this fall's breeding. Satisfaction guaranteed in all mail orders. o

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GLENBURN YORKSHIRES won Gold Medal at Ottawa, 1902. Herd averages 100, headed by the choice boars, Oak Lodge Prior and Pine Grove Squire. Twenty brood sows, 12 six-months sows, due to farrow March and April; 40 sows and boars, four weeks to three months old; pairs not akin. o DAVID BARR, Jr., Renfrew, Ont.

Large English Yorkshires

Sows safe in pig, boars fit for service, sows ready to breed, boars and sows 2 and 4 months old. Satisfaction guaranteed in orders received by mail. o JAS. A. RUSSELL, Precious Corners, Ont.

YORKSHIRES FOR SALE

Boars fit for service, sows in farrow, ready to breed, and young stock on hand. Can supply pairs, not akin, of spring farrow; also a Short-horn bull 21 months old. o

WILLIAM HOWE, Bruce Co., North Bruce, Ont.

WESTON HERD Improved Large Yorkshires.

Every breeding animal has proved a winner, is by a winner and has a long and profitable record. Write for particulars. om

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I have a fine lot of Yorkshires, also a few choice sows, and a number of fine poultry. Write for particulars. om B. Armstrong

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Best type and quality. Young stock constantly on hand. Prices right. o R. HONEY, Brickley P. O., instead of Warkworth.

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FOR SALE: Some choice young sows and boars, ready to breed; also Barred Rock eggs, \$1 per setting. om G. & J. CARRUTHERS, Cobourg, Ont.

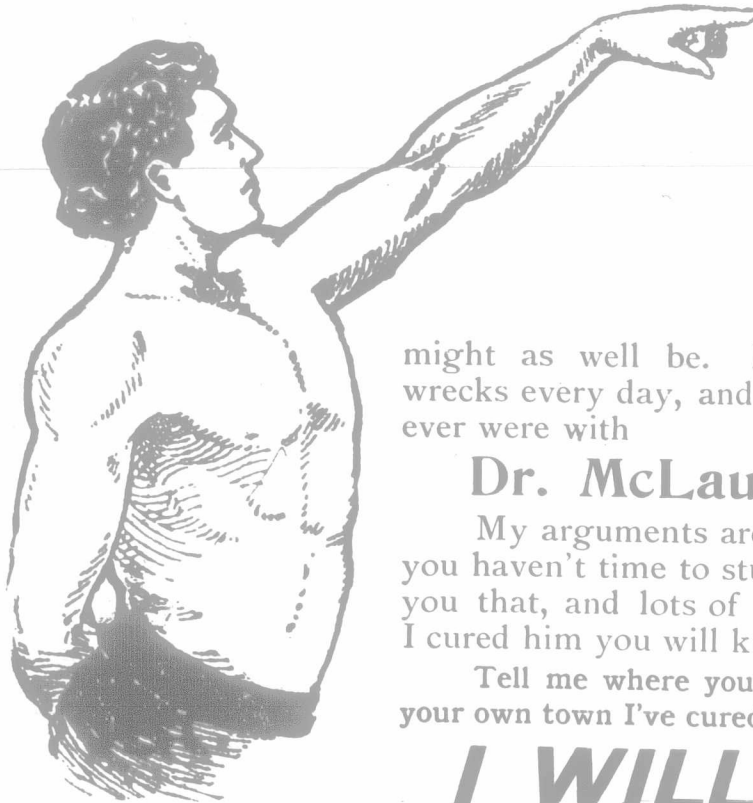
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I am expecting, by the first steamer next spring, a few choice sows with litters. Will book orders now for young stock, 8 to 10 weeks old, to be delivered at beginning of May. This is a rare chance to buy imported stock at reasonable prices. Write me now, and ask also for the finest poultry circular published in Canada. om GUS. LANGELIER, Quebec City.

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might as well be. It's easy. I am making men out of wrecks every day, and I can make you as good a man as you ever were with

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My arguments are good, my system is good, but I know you haven't time to study these. You want proof, and I give you that, and lots of it. When your own neighbor tells you I cured him you will know I did it.

Tell me where you are and I'll give you the name of a man in your own town I've cured.

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For a case of Nervous Debility, Varicocele, Early Decay and Waste of Power, Rheumatism, Lamé Back, Lumbago, Sciatica, any case of Kidney Disease that has not gone as far as Bright's Disease, Indigestion, Constipation or any weakness caused by ignoring the laws of nature, which I cannot cure with my new improved Electric Belt, the marvel of electricians, the most wonderful curative device that has ever been introduced.

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Most of the pains, most of the weakness of stomach, heart, brain and nerves from which men suffer are due to an early loss of nature's reserve power through mistakes of youth. You need not suffer for this. You can be restored. The very element which you have lost you can get back, and you may be as happy as any man that lives.

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CAUTION. To protect the reputation of my Belt, I am compelled to caution people against certain concerns that are advertising electric belts. My office contains hundreds of these magnet bands that possess no virtue. Even if they did, those selling them could not advise the proper manner to apply them.

READ WITH CARE.—Dr. McLaughlin's is positively the only electric appliance sold in Canada with which the patient has the care of a physician. I do not allow agents or drug stores to handle my Belts.

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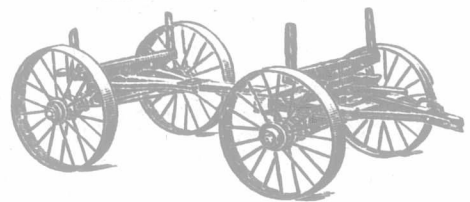
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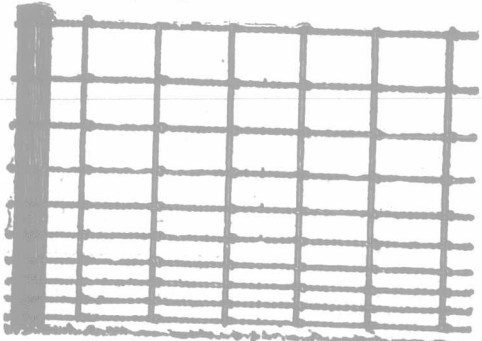


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Ten Superb Vegetables for 25 Cents.—One full-size packet each of Beet, Carrot, Onion, Lettuce, Cucumber, Radish, Parsnip, Squash, Cabbage and Tomato—all varieties of our own selection.

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Twenty Grand Summer Flowering Bulbs for 25 Cents.—1 Prize Tuberosa Begonia, 1 Magnificent Giant Gloxinia, 1 Beautiful Spotted Leaf Calla Lily, 5 Handsome Giant Summer Hyacinths, 7 Superb Childat Gladiolus and Rare Montbretias. (This parcel ready April 15th. Order to-day.)

Five Beautiful Dahlias and Cannas for 25 Cents.—1 New Double Dahlia, 1 Brilliant Single Dahlia, 3 Grandest and Richest Large Flowering Cannas (all different). (This parcel ready April 15th. Order to-day.)

FREE PKT. Crimson Plum Celosia, (Price 25c.) as a Premium with all orders.

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WM. RENNIE, - - TORONTO.



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BADEN, ONTARIO, Manufacturers of strictly pure Old Process Linseed Oil Cake and Meal, also Ground Flax Seed. Write for prices.

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Smokers! We are introducing a new brand of Cigars and to get you acquainted with them we will send with your first order all of the following: 1 Full size box of well made, regular weight, full length fine and durable American Cigars, fully guaranteed. Looks and keeps time equal to any finished Lever Top Collar Buttons, 25c.; 1 handsome gold-finish Watch Chain, with beautiful Intaglio C case 50c.; 4 14-25c.; 1 beautiful Imitation Diamond Shirt Button, 25c.; 1 pair Silver finished Cuff Links, 25c. Total value, \$9.00, all for \$2.97. Only one outfit at this price for each person. You call and examine everything thoroughly, and then when satisfied that we are offering \$9.00 worth of goods for \$2.97 you pay the express agent \$2.97 and extra charges and the outfit is yours. Agents make big money handling these cigars and jewelry for nothing. As an advertisement we have set aside 150 outfits to sell at this price. This is the greatest bargain ever offered. Order to-day. Ladies' Hunting Case Watch very pretty, instead of Gen's, or only 50c. extra. If you do not live near an express office send us with your order and 25c. extra for postage and we will forward the outfit by mail all charges paid. Address THE SNOW CIGAR CO., DEPT. 522 TORONTO, Ontario.

BARGAIN SALE

Remnants of SILK RIBBONS almost FREE

We have recently purchased several thousand dollars worth of Ribbon Remnants, in London, England, much below the actual cost of manufacture. We are thereby enabled to offer the lady readers of this paper an immense bargain in choice silk ribbons. They are all from one to three yards in length, and some 2 inches wide. Amongst these Ribbons are some of the very finest quality, Crown Edge, Gros-Grain, Moire, Pilot Edge, Satin Edge, Silk Broadens, Striped Ottoman and various other plain and fancy styles, in variety of fashionable colors, all shades and widths, suitable for Bonnet Strings, Neckwear, Trimmings for Hats and Dresses, Bows, Scarfs, etc., etc. All first class. No lady can purchase such fine Ribbons at these at any store in the land for many times our price. Don't miss this Bargain. Mrs. W. Gallagher, East Giffen, Ontario, says: "I consider your Ribbons the cheapest I ever got." Price, per box, only 15c., or 3 boxes for 50c. postpaid. Military Supply Co., Box 7 Toronto.

CAN YOU SOLVE THIS PUZZLE?

RA \$200.00



We will give \$200.00 in Spot Cash to the persons who send a correct answer to this puzzle which represents a well-known vegetable. Remember, we do not want you to send us a single cent of your money. Just study the picture carefully, send us your answer, and who knows but what you may win the cash? Should there be more than one correct answer the money will be treated exactly the same as everybody else who sends us a correct answer. \$200.00 is a nice lump-sum to live away at one time, but we are going to do it to advertise our business. There is only one slight condition which will take less than an hour of your time which we will write you as soon as your answer is received. Remember we mean it when we say that we do not want any money from you. As soon as we receive your answer we shall at once write and notify you if you are entitled to a cash prize. It is indeed worth trying. A Postal will do. See if you are bright enough to make out what vegetable is represented by the picture and to get a cash prize without investing a cent of your money. Address very plainly, The Prize Co., Prize Dept. 520 Toronto.

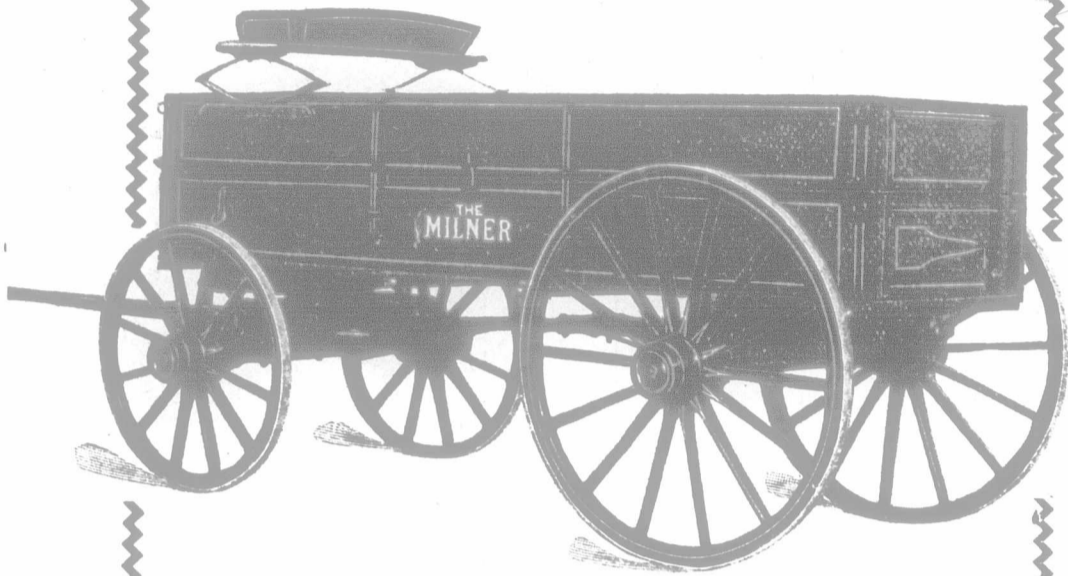
THE LOVELIEST SILK REMNANTS YOU EVER SAW. ALMOST GIVEN AWAY.



Enough heavy, rich, elegant Silk Squares to make 2 large soft cushions for only 15c. All good big pieces, some so large that you will have to cut them up. How can we do it? Why, because we picked up a great big lot at a European Silk Mill. They had an immense stock of extra fine samples of their very best silks cut in large pieces for their travellers to take orders with from wholesale houses and offered us the lot at a price which enabled us to give you this great bargain. We closed the deal and now we are giving our lady friends the benefit. Think of a package of these beautiful, large pieces, all of the newest patterns, stripes, checks, flowers, rich heavy quality, enough to make two large cushions, or drapes, ties, and a hundred other lovely things to beautify your home, for only 15c. In making this kind of fancy work a great point is to have a variety of patterns, is it not? Well, in the whole of this immense stock there are no two pieces alike. With each package we send free a booklet showing over 100 fancy stitches for ornamenting the sewing, which will add a hundredfold to the beauty of your work. Don't miss this chance. We shall never be able to offer to you like these again, and so will not be able to offer them to you. Read what ladies say who have bought our Silk Squares: Corval P.O., Ont., "I was very much pleased with the silk Remnants. There were more pieces and of better quality than I expected."—Mrs. T. Ibbotson, Salem P.O., Ont., "I think your Silk Remnants are just 1vely. Please send me some more."—Miss Aggie Smellie, Milledown P.O., "I enclose 25c. for 2 more packages of Silk Remnants. I was very much pleased with both the quality and quantity, as you may judge by my repeating my order."—Mrs. W. E. Saxby, Pembroke, Ont., "I am very much satisfied and delighted with the Silk pieces received. I have found them very useful and beautiful."—Mrs. J. Houten, Centralia, Ont., "I am sending for 2 more packages of silk pieces. I think they are very nice and the cheapest bargain I ever got."—Mrs. Wm. Huxtable, We have hundreds more like these. Price, 1 package, 15c.; 2 for 25c. Don't send stamps. Already we have filled 11,781 15c. orders, and 17,023 25c. orders. The Home Supply Co., Silk Dept. 538 Toronto, Ontario.

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Always a Leader.



STANDARD
FARM WAGON

MANUFACTURED BY

The Milner Petrolea Wagon Company, Petrolea, Ont.

WRITE FOR CATALOGUE.

**MELOTTE
...CREAM
SEPARATORS**

Are the popular farm cream separators for several reasons. One of them is illustrated here. The Bowl hangs on a hardened steel spindle which revolves in a socket fitted with ball bearings. Friction is thus reduced to a minimum, and the machine runs so smoothly as to necessitate the use of a brake, which is a feature of all the "1903" Melottes. An equally important feature of this beautiful arrangement is that the bowl is self-balancing, and thus all the annoyance and expense involved in a bowl getting out of balance is avoided. These invaluable features are possessed by no other Cream Separator. Ask our agents to let you have a machine for eight days' free trial, or write us for Illustrated Booklet.

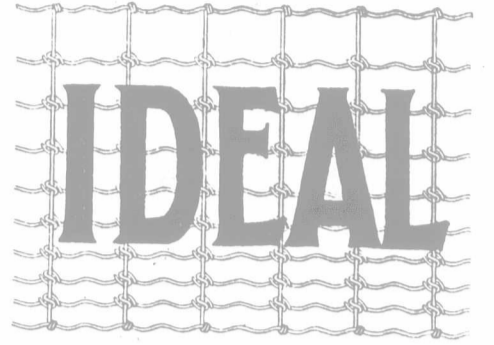


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Heavy uprights and bars of No. 9 hard spring wire, united by a perfect galvanized lock, make the **IDEAL FENCE**

**Strong,
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Contraction and expansion amply provided for. Write to-day for catalogue.

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"LONDON" IS THE NAME OF THE
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GREATEST FIELD WIRE-FENCE WEAVING MACHINE ON EARTH

IN POINT OF UTILITY, SPEED AND PRODUCTION OF HIGH-GRADE FENCE AT A MINIMUM COST.

WHY THE GREATEST?

Because it's fastest: a single revolution of its crank makes a joint, 20 seconds sufficing for one man to put an upright on a 10-bar fence. It has been done in 10 seconds.

Because it's easiest to operate.

It's so simple, a boy can learn to use it in 5 to 10 minutes.

Because it does its work perfectly. Doesn't curl or warp the fence, but makes its joints tight, stays straight, and does not injure any of the wires in the least degree.

Because the London will build any weight, height or spacing of fence desired, and can be adjusted to any in 3 to 5 minutes.

Because fence built on the ground with it is 25 to 50 per cent. more valuable than fence of the same weight woven in the factory.

Because there is no waste remnants to pay for; every pound counts.

Because it builds its fence perfectly over hill, dale or plane. Because its cost is from 50 to 60 per cent. only for fence of similar weight and grade of wire; or, in other words, you can fence two rods at the cost of one in factory-made fence.

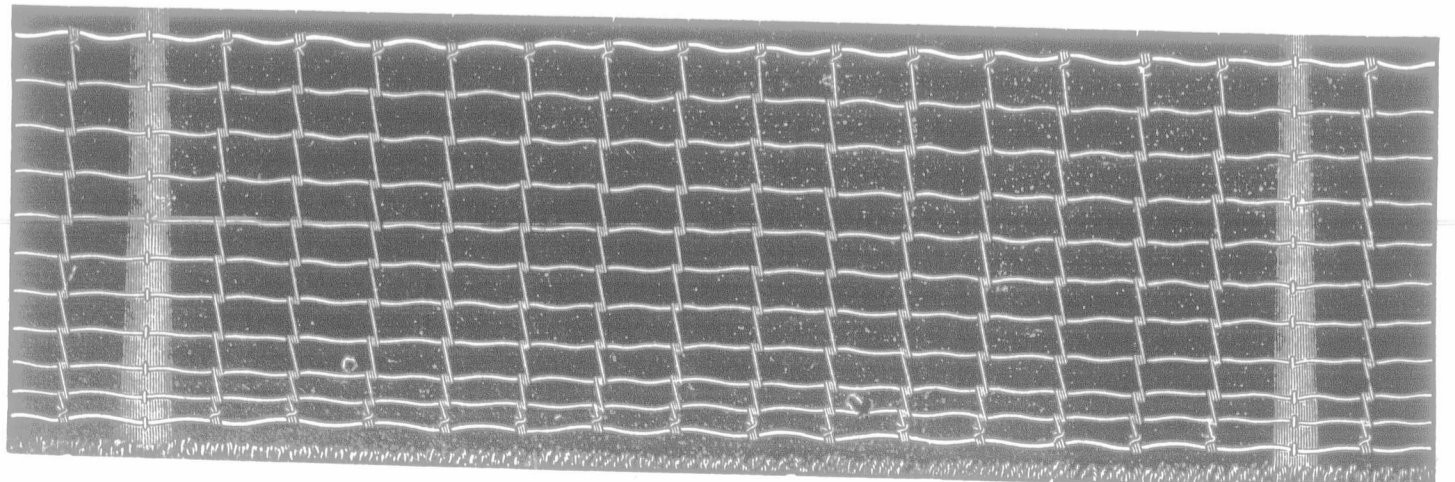
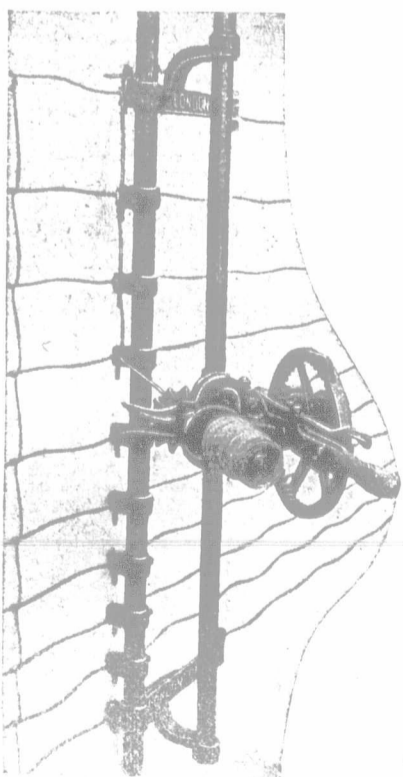
Because it makes the neatest, most serviceable and strongest wire fence that can be made for any certain cost. We challenge anyone to produce for the same cost 75 per cent. as much strength, utility and durability by any other style of fence, or way of building it, as is done by building it on the ground, as with London machines.

Because we can show you that a saving of \$100 to \$300 can be effected on a 100-acre farm, and a far superior fence built.

Because twice more London Fence Machines are being sold in Canada than all others put together. Thousands of practical, up-to-date farmers have tested them and are ready to testify to their great qualities.

The London Fence Machine Co. are the first Canadian manufacturers of wire-fence weaving machines to go after Yankee competitors in their own country. We have now a much larger factory in Cleveland, Ohio, than at London. Why? Because we know London machines will win the world around.

London Machines and London Wire make the best fence on earth, for least money.



Wire for 100 rods 11-bar coiled steel spring woven-wire fence, like the cut, with No. 7 top wire, No. 12 body wires and No. 9 bottom wire, with No. 13 stays 12 inches apart—the 100 rods as above and a London Machine complete, London Tackle Block Stretcher complete, a London Reel and a pair of Bernard's best 6 1/2 nickel-plated Cutting Pliers, delivered as above, for \$417 cash. Ask our agents for particulars, or write us.

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