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# FARMING

April 4th, 1899.

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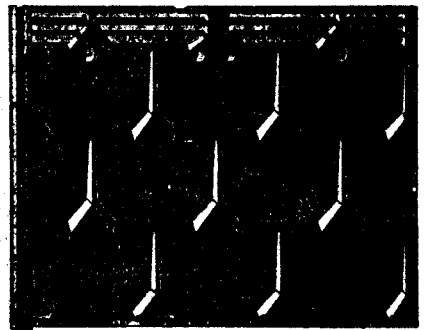
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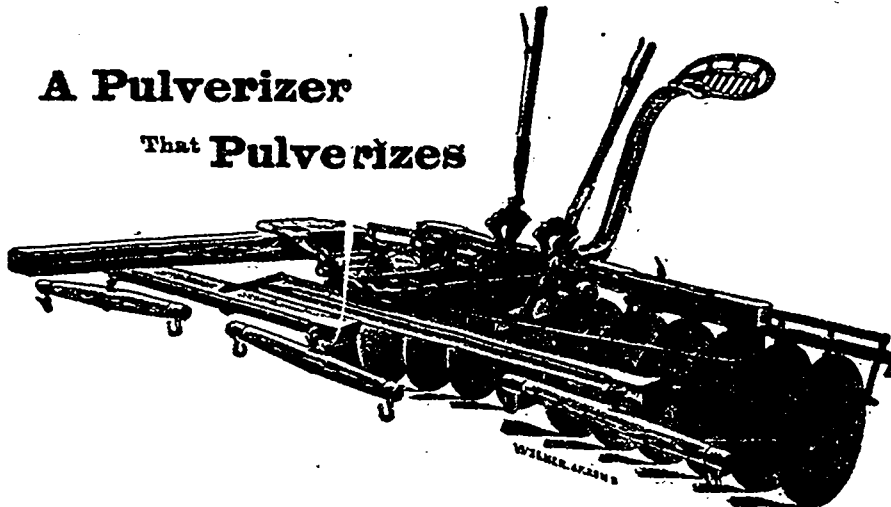
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# FARMING

VOL. XVI

APRIL 4th, 1899

No. 31

## Saw It in "Farming"

COBourg, March 25th, 1899.

DEAR SIRs,—With pleasure I enclose \$1, my subscription for 1899 I am coming west this week to buy some purebred cattle that were brought to my notice by your paper.

Yours truly,  
A. J. RUSSELL.

## Agricultural News and Comments

The United States is making rapid progress as an exporter of poultry to Great Britain. Kansas and Ohio are the chief sources of supply.

It is reported that a new company has been formed in Virginia with a capital of \$100,000,000, with the avowed intention of cornering the export beef trade.

A good motto for the farmer to have in mind as spring approaches is "A little farm well tilled, etc." There is often a rush on the part of the farmer to get through with his seeding operations too soon. No greater mistake than this could be made or that of putting in the crop with the land only half prepared for it.

The importation of poultry from the continent to Great Britain is reported to be declining. Canada, the United States, and Australia are each year sending more and more of this product. As we have frequently pointed out, this trade is growing in importance every year in so far as Canada is concerned, and our poultry raisers should make a particular note of this fact.

In Great Britain compensation has been allowed in cases where pigs are destroyed on account of swine fever since November, 1893, and the average yearly amount spent on this and for administration amounts to £190,000 per annum. This is rather a serious item, and if similar compensation were allowed in cases where cattle were destroyed because of tuberculosis the annual expenditure would be enormous.

It is said that expanding ammonia or carbonic acid forms a good means of cooling the air in a dwelling in hot weather. For this purpose ammonia is better suited and is cheaper than carbonic acid. In an ammonia-cooling machine the gas is compressed and cooled by water to a temperature below its critical point; it is thus liquefied, and, when allowed to expand, it becomes very cold, and may be made to cool the air directly.

The largest frozen-meat factory in the world is near Buenos Ayres, South America. The establishment is capable of an output of 3,500 sheep per day, or 100,000 mutton carcasses per month. The freezing rooms have a capacity of nearly 100,000 cubic feet, and have hanging room for 6,000 sheep. The store rooms, in which the sheep are stored after freezing to await shipment, have a capacity of 150,000 cubic feet, and can contain upwards of 50,000 sheep.

The paucity of cold storages in St. Petersburg and the almost entire lack of Baltic trading vessels fitted up with cold storage facilities have seriously injured the condition of the poultry and game shipped from some parts of Russia to Great Britain during the mild season of February. It is now clear that if Russia wishes to compete with other countries in this trade she will have to have a complete system of cold storage similar to that in operation in Canada.

The black faced mountain sheep of Scotland have several sterling qualities. They are hardy to a degree, thriving on the sparse herbage of the mountain side, where English sheep could not exist. Their mutton is of exceedingly high qualities, and the ewes prove excellent mothers. Since the great liver-rot, about twenty years ago, these sheep have been brought to England for breeding purposes. Many farmers in the northern and midland counties of England cross the mountain sheep ewes with border Leicester rams, and thus some very good, fat lambs are produced. One drawback of the mountain sheep is that they do not cut much wool.

## Selecting Seeds

One of the important tasks which every farmer has to perform as seed time approaches is that of selecting good seed. In no small measure the result of the crop depends upon a wise selection of seed. To prepare a field and get it into a perfect state of tillage and then sow it with an inferior quality of seed is simply an absurd policy to follow. Yet there are many farmers guilty of just such practices as this, and if when harvest approaches the crop is a failure they wonder what is the matter. In rearing cattle or any other kind of stock, good feeding and good breeding must go hand in hand. And so with growing grain, good seeding or providing good seed and good tillage and cultivation must go hand in hand. When both these are provided, and the land is in good condition as regards a sufficient supply of plant foods, an abundant crop is almost sure unless the elements over which the farmer has no control are very much against him.

A good way to examine seed is with a small magnifying glass. With this instrument the outside characteristics of the seeds, such as the size, color and broken grains, can easily be detected, and if there is a very large proportion of these inferior seeds the whole lot should be discarded and a better quality substituted. In no case should small or undeveloped seeds be sown. Nature provides that every well-developed seed has within itself a sufficient supply of food to enable it to grow under favorable conditions till it is strong enough to utilize the plant food in the soil around it. A small or undeveloped seed has not so large a supply of this food within itself, and unless the conditions for growth in the soil are exceptionally favorable it will hardly grow at all, and at best will produce a weak and spindly plant. For this and other reasons a shrunken seed is not good.

As the chief substance which the seed takes from the soil in attaining maturity is phosphate it is claimed on good authority that seeds grown on soils deficient in this substance have not within themselves the vitality to reproduce and give a productive crop. This is something for our experiment stations and farmers to work out and test for themselves. For this reason it is a good plan for the farmer, if his land is deficient in phosphates, to change seed frequently.

Of course, no farmer who has any pride in his profession will sow dirty or unclean seed. Weeds are plentiful enough on most of our farms without having the number increased by sowing dirty seed. Sometimes it may be difficult without a careful examination of the seed to detect any foreign matter as would be the case with wild oats in regular oat seed. Then there are the smaller weed seeds in the grain that sometimes cannot be detected unless a close examina-

tion is made, such as we have already described. All this requires careful attention on the part of the farmer and should not be neglected if he wishes to make the most out of his farm. Many farmers make a specialty of growing grain for seed and are able to dispose of the product at a good profit if only they can guarantee clean seed, which they cannot do unless special attention as to the kind and quality of the seed sown is given.

### A Great Canadian Canal Scheme

Sometimes we have to go from home to find out about ourselves. In an English publication, entitled *British Refrigeration and Allied Interests*, just to hand, is given a detailed account of a great Canadian canal scheme. The proposal is to connect the Ottawa river with French River by means of a canal, and then by dredging and improving the streams referred to to form a complete waterway system between Montreal and the Georgian Bay. The distance from Montreal to French River is 430 miles, of which a natural waterway, 351 miles long, is found in the Ottawa River. The remaining 78 miles, it is said, can be so improved that 29 miles of canal only are necessary and the estimated cost is \$17,000,000.

It is stated that a syndicate has been formed in London to support the promoters in the active operations undertaken. It is also stated that one firm is willing to accept the contract upon a Dominion guarantee of three per cent., or an Imperial guarantee of two and a half per cent. This English journal further states that the project has received the strong commendation of the present Governor-General and the approval of Sir Wilfrid Laurier, which makes it possible that the guarantees may be looked for. If the scheme goes through it is claimed that it will effect a saving of four days from Chicago to the seaboard over the Erie Canal route, and of one and one-half days over the St. Lawrence route. It is proposed to make the waterway navigable by large ocean steamers, and if such could be done it would give great impetus to the trade and settlement of the Northwest, and would probably seriously affect

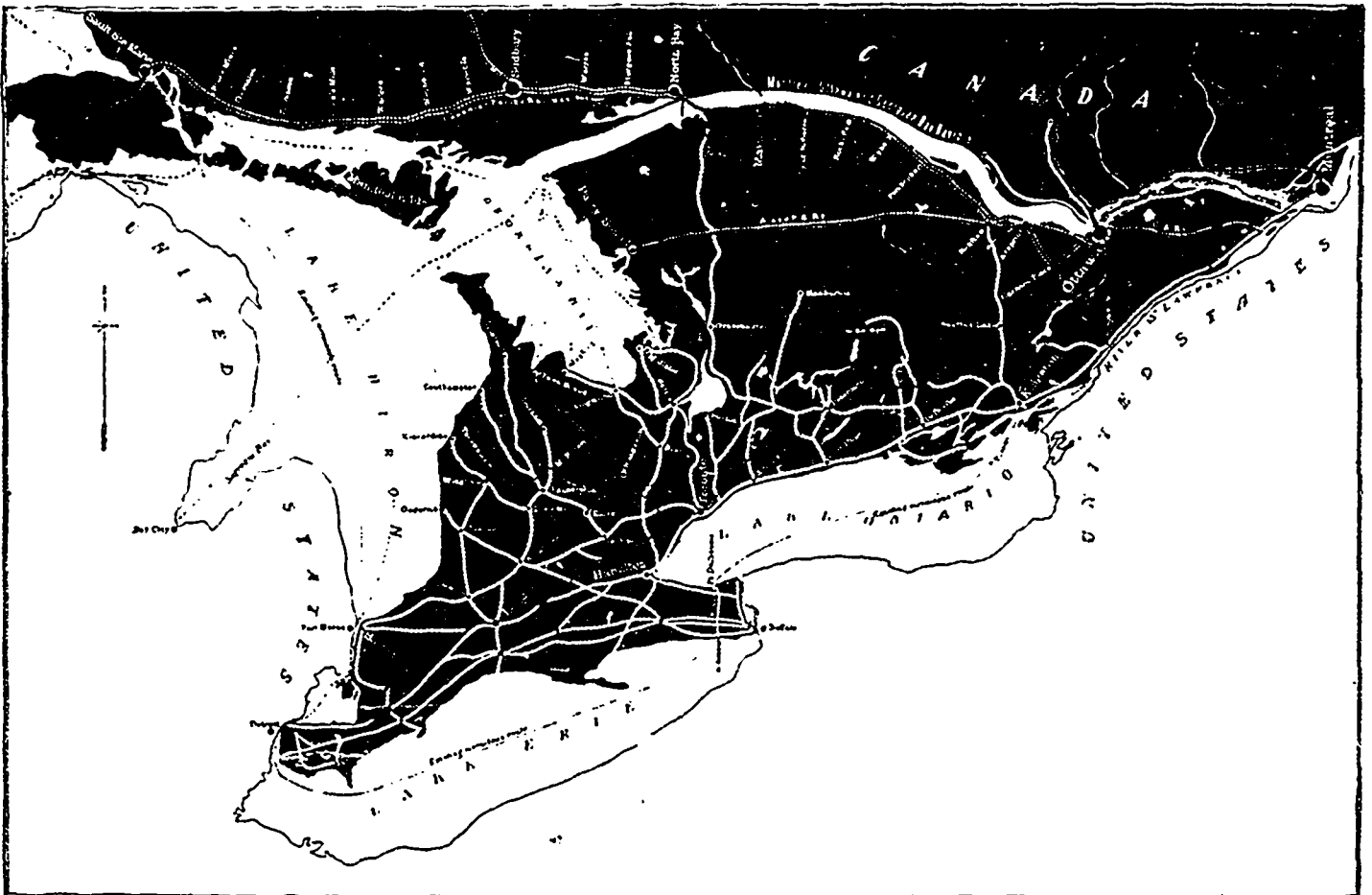
New York and other Atlantic ports during the open season by diverting a large portion of the trade now passing *via* Chicago to these seaports.

The scheme is strongly commended by the journal referred to, which goes so far as to say that the required Imperial guarantee should be given and more than that, should be proffered in order to facilitate the beginning of the work. We reproduce, herewith, from the same source, a map outlining the proposed waterway. It shows clearly the great advantages to be gained by such a scheme as compared with the route through the great lakes. By this plan in the distance from Sault Ste. Marie to Montreal of 615 miles there are 585 miles of sheltered lake and river and 30 miles of canal. Of the 30 miles of canal in the scheme 15 miles are already in operation, including the Lachine Canal, and the Ottawa River is navigable from Montreal to Ottawa, a distance of 110 miles. The proposal was first mooted as far back as 1847, but it is only within the past year that it has taken anything like definite shape.

### The Transportation Problem

Every one should read the letter of W. A. Robinson in this issue relating to the transportation problem as it affects the farmer. He certainly gives very strong reasons why the farmers should be as much if not more interested in this problem than any other class of our citizens. As he very clearly points out the farmer in a great many cases has to pay the freight charges on what he consumes as well as upon what he sells. This is a view of the situation, though not new, that has certainly not been given very much prominence in a public way.

The people living in Eastern Canada may not be able to realize fully the difficulties which the Western farmer has to contend with in the way of freight rates and railway monopoly as pointed out by our correspondent, but they can do so in a measure at least, as it is not all smooth sailing in so far as transportation in the Eastern Provinces is concerned. To the Western farmer cheap transportation means everything, situated as he is so far from the seaboard.



With the competition there is to secure a place in the world's great food markets, the country or section of country that cannot get the advantage of cheap transportation in getting its products to that market will not be able to successfully compete with countries which have these advantages.

Canada is a large and growing country, and one thing more than anything else that it needs and to which every Government should lend its energies to secure is cheap transportation in getting its products into the world's markets. In this regard we are at an immense disadvantage as compared with our competitors in the great republic to the south of us. As we have pointed out more than once in these columns the producer in the United States has such an advantage in the way of cheap transportation as compared with his Northern competitor that, if the only profit he made were the difference in the ocean and railway freights charged in getting his products to the European markets, he could make money by his vocation. As we have frequently stated, the difference in freight rates in shipping cattle from the Western States to Great Britain as compared with those from Ontario points is \$6 per head, which means a good profit to the producer. We understand that this difference is due to the ocean freight rates. But it matters little where the difficulty is—the Ontario farmer has to pay the difference by taking that much less for his cattle.

### New Legislation as it Affects the Agriculturist

Generally speaking the farmer exhibits comparatively little interest in the legislation enacted at either Houses of Parliament affecting his own business. This attitude, however, is not observed by other classes of the community. As soon as there is the least inkling of legislation affecting their interests we find the merchant, the banker, the large corporation, and, in fact, every other element in the country but the agriculturist on the alert lest anything should be done that would be likely to injure their business. And if it should happen that any legislation is broached that imposes a slight tax or some other obligation on any one of these classes, the Government is beset by deputations galore, and every effort made to check such legislation or to have it modified to suit their ideas. But not so with agriculturists as a class. They, seemingly, are totally unconcerned as to what is being done in our legislative halls, either for their benefit or to their detriment. This should not be. Every farmer should feel that he has a special and particular interest in every item of legislation that directly or indirectly affects his calling.

The session of the Ontario Legislature, which closed last week, has not been very fruitful in new legislation affecting the farmers' interests. There are, however, a few measures which are worthy of special mention. An act respecting cheese and butter manufacturing associations, among other things, provides for the removal of old trustees and the appointment of others in their place at any general meeting or a special meeting called for the purpose. This makes clear a clause in the old act about which there has heretofore been very much doubt.

A more important measure affecting the dairy industry, however, is that relating to the organization of cheese and butter exchanges. Almost since the beginning of the cheese industry in Canada there have been in operation, more particularly in Ontario, local cheese markets or dairy boards of trade, where the representatives of the factories and the buyers met to sell and buy the output of the factories. These exchanges or boards of trade have been operated under no special law, and have had no authority for enforcing their rules and regulations, or compelling those who became members to obey them. A special act has therefore been passed at the session just closed whereby such exchanges can be incorporated, and can make their rules and regulations binding upon the members. Persons interested in the working of these exchanges in the past

from other than purely selfish motives, will heartily endorse this new legislation. Year after year these dairy boards of trade have met and adopted rules and regulations to govern the buying and selling of the cheese and butter offered by their members, but as they had no power to enforce them, rules were largely a dead letter, and made the operations of the exchanges a kind of farce. Provision is also made whereby all disputes arising between the members of the exchanges shall be decided by arbitration in manner directed by the rules of the exchange, and the decision so made shall be binding and conclusive on all parties, and shall not be subject to appeal. This law will put the working of these exchanges on a better basis, and will, we think, inflict no hardship on either the buyer or seller in enabling the rules and regulations to be enforced.

Another piece of legislation of importance to the farmer was that introduced by the Hon. John Dryden in his amendment to the San José Scale Act. The important part of the amendment is that relating to the fumigation of all nursery stock by hydrocyanic acid gas before it is allowed to leave the nursery or offered for sale. This may seem something like a hardship upon the nurserymen, but when we consider the interests of the thousands of fruit growers in the country who are every year buying trees, it is natural to conclude that the few should suffer in order that the many may be benefited. But this regulation does not impose any great expense upon the nurseryman if he has proper arrangements for fumigating, while it insures every one who buys a tree from having his orchard injured by this most destructive and persistent pest. In fact, this regulation should stimulate the buying of more trees by the farmers, as many of them heretofore have been somewhat afraid to venture for fear of the pest, and in this way the nurseries may be able to dispose of more stock than they otherwise would. The remainder of the bill relating to the inspection and destruction of affected stock is something that the average farmer is not particularly interested in.

Another amendment of some interest to the farmer was that brought in by the Minister of Education, providing for the giving of instruction in agriculture in the public and other schools by qualified persons engaged for this purpose by the municipalities and of which we made mention a few weeks ago. The announcement made by the Minister in one of his addresses to the Legislature is, however, of much more importance than this amendment. His announcement, and which we trust he will carry into effect at an early date, is that of making the teaching of agriculture in the public schools compulsory or of making it a compulsory subject in the departmental examinations. This is what we have been contending for for some time back, and we feel sure that, if the teaching of agriculture, at least in the rural schools, is made part of the regular duties of the teacher, it will do more than anything else to stimulate an interest in the farm and the farmer's calling among the rising generation. At any rate we shall maintain this view till it has been proven after several years of fair trial that the system is a failure.

There is not much change in the general appropriations for agriculture for the current year. The total appropriation for 1899 independent of the supplementary estimates is \$204,217 as compared with \$202,919 in 1898. Of this amount \$152,950 is for carrying on the work of the Agricultural Department, grants to agricultural societies, live stock, dairy, and other associations, dairy schools, pioneer farm, etc., as compared with \$150,650 in 1898 and \$51,267 for the agricultural college, including farm, experimental and dairy school work, as against \$52,269 last year.

### The Best in the Dominion

BAY VIEW, P.E.I., March 11th, 1899.

DEAR SIR,—I enclose my subscription to FARMING for one year from April next. I am well satisfied with your paper, and consider it the best agricultural journal in the Dominion.

Yours truly,

ARTHUR SIMPSON.

## Export Cattle on a Hundred-Acre Farm

If our trade in export cattle is to develop and grow as it should, a great deal will depend upon the attitude of the average farmer towards it. From the statements made frequently in our weekly market reports as to the large number of unfinished and inferior cattle offered we are inclined to the view that the average cattle feeder or farmer on a hundred acre farm either does not know how to raise and fit cattle properly for export, or is totally indifferent as to the needs of this important trade. This should not be. Every farmer should give this matter more or less attention. And what we mean by this is not that he should make his whole business that of raising cattle for the British market, but that he could very well combine it with his other branches of farming. There can be no doubt but that the best line of farming for the bulk of the farmers in the older provinces of the Dominion is mixed farming. And, as the facts stated in this article elsewhere show, every farmer on the average hundred-acre farm could raise several cattle for export every year without interfering very much with his other farming operations. Nearly every farmer raises a few steers every year, the bulk of which are sold to the local butcher or drover when only half-matured and for about half what they should bring if the right breeding methods had been adopted and proper methods of feeding and raising the calves had been followed. If the average farmer is going to raise cattle for beef purposes at all, let him do it in the best way, and in a way that will bring him the most money.

With the object of obtaining some practical information of value along this line we wrote to several of our leading breeders and feeders for their views on this subject, and are pleased to be able to give the following extracts from some of the replies received. These replies, as will be seen, are from four different counties where beef-raising has been made more or less of a specialty. A prominent feeder of Wellington county says:

"Replying to yours of the 8th, re farming, cattle-raising and fattening, I would say that, as I view it, the business of farming in this country appears to be shaping itself in the matter of an ever-increasing and growing trade with Great Britain. Keeping in view the rapid and relative growth of the cities and towns as compared with the producing capacity in the United States, and bearing in mind that already there is a noticeable falling off in the number of cattle of that country, it would appear that there are better prospects for doing more business and a better paying business along the lines of supplying the British markets with meat products than for some years. On the other hand, it is pretty generally conceded, by those who are in a position to know, that Canada has got to the limit of what it is likely to do in the matter of supplying the British market with cheese. Looking at it in this way, I would answer your questions as follows: What would be the best line of breeding to follow? While fully admitting the force of the arguments used in favor of breeding distinctly for either meat or milk, there is a good deal that can be said, as conditions now are, as to the desirability of the average farmer keeping the "general purpose cow." Or put it in another way, it would appear that the dairy business has been pushed sufficiently far, and it might be well for the average farmer not to depend altogether on one special line. There are many good herds of general purpose cows in this country, notwithstanding all that has been said to the contrary. What method of feeding and raising the calves would give the best results? When dairying and beef-producing is carried on at the same time unquestionably they should be raised by hand. Further, as good calves can be raised in this way as by allowing them to suckle, and at a very much smaller cost. The success, however, of this method will depend upon the closest attention being paid to every small matter of detail, such as accustoming gradually to the change from new to skimmed milk, occupying, say, three or four weeks. Add flax-seed tea as the new milk is withdrawn. Never allow a calf to

gorge itself, it produces indigestion, but it is well to give a full supply. Never give sour milk. The flax-seed ration should be light to begin with; say work up to half a pint between two calves at six to eight weeks old, then gradually increase the quantity to one pint between two, which is about enough. The flax seed should be prepared by pouring boiling water on the seed at night for the morning meal, and in the morning for the night meal. Use a gallon of water to a pint of flax-seed. Have milk as nearly as possible the temperature when drawn from the cow. The easiest and best way to secure the temperature is to have it warmed with the flax tea. Give grain as soon as the calves will eat it. Unground oats and bran is a good grain ration for calves. Keep the trough clean. As soon as they begin to eat regularly give no more than they will eat up clean. Give roots and nicely cured clover hay. The calves will grow much more rapidly and do better if kept stabled, although it is a good plan in hot weather to let them run in a grass paddock at night. The increase in weight with good animals, *when every small matter of detail is properly attended, might surprise some people who have been in the habit of carrying out this work in a slipshod manner in the past.* Would it be better to have the cattle ready for market during the winter or summer? It is difficult to give a straight answer to this question. Speaking in a general way, it is well to have a good deal of the flesh put on before the stock go into winter quarters. And then, as to the time of selling, one must be guided by the conditions under which they are farming. For a good many years past I have been in the habit of fattening all my cattle on rape in the fall and selling at Christmas, or thereabouts. I found it the best plan in my own case, but that is something quite different, for feeding for the export trade, and that speaking in a general way, is what we have most to consider. It is a very good plan to do as the Scotch feeders do, to have something coming on all the time. About how many cattle fit for export could be sold every year off a hundred-acre farm, and not interfere much with other farming operations? It is not easy to get at this. The number which might be kept and properly pastured depends upon so many things, such as whether making pork is being made a specialty, whether the cattle are raised on the farm or partly bought. Speaking in a general way, I would say half a dozen a year. But whatever the number, let them be thoroughly finished."

J. T., Bruce County: Your circular, re "Future Development of the Export Cattle Trade," to hand. In reply, would make the following suggestions: Without doubt, if profit (and that is what we are farming for) is to be considered, the best line to follow is breeding to purebred Shorthorn bulls. If beef only were to be considered, there are others of the beef breeds that would admirably meet the requirements of this trade. But, for the average farmer, who keeps a few cows for dairy purposes and the rearing of stock for sale, etc., by breeding them to a Shorthorn sire, he will get steers of which there are no better for the export trade, and heifers that will make excellent dairy cows either for the creamery or cheese factory. The method of raising and feeding the calves depends somewhat on the line of dairying the farmer is following. If he is selling the milk to a cheese factory, the calves should be dropped two months or thereabouts before the factory commences operations in the spring. In this way butter can be made until the factory opens and during a season that it will command as high price as any during the year, and the milk partly whole and partly skimmed can be fed to the calves, and by the time the factory opens the calves will be strong and able to eat a little meal; either chopped oats or even whole does very well, and with the addition of some pulped roots, hay, and chop, will get along nicely until there is grass. If butter is made, or the cream sent to a creamery, it matters not so much about when the calves were dropped, although it is better to have them early in the season so that advantage may be taken of the creamery season. In making butter the milk is kept on the farm and fed to the calves with the addition of some ground oats and other foods, as in the case of the cheese factory

In this way good calves can be raised the first summer. Then comes the first winter. In my opinion, this is a critical period in the life of the animal, whether intended for export purposes or a dairy cow. If properly treated the first winter, the steers can be made ready for the British market when at about three years old, and at the most profitable age, and the heifers will be well grown and matured earlier. In order to attain this object the first winter the calves should be kept in warm and comfortable quarters and fed liberally with pulped roots, chaff, and some ground oats or wheat bran and as much hay as they will eat. The second summer the run of a good pasture field is all that is necessary. The second winter, pulped roots, chaff, straw, or hay, with an addition of a little chop feed or wheat bran all the better. What is required is to keep them growing. During the third summer good pasture is all that is required. During the next fall, when cold nights and stormy weather commences, they should be put into warm and comfortable quarters and finished off for export. There are two methods of doing this; one is to dehorn the cattle and let them run loose in roomy boxes. The other is to tie them up in stalls. Both these plans have their advocates. In my own locality there are quite a large number of cattle fed for this purpose, and, with but few exceptions, the cattle are tied up. Then, as to the rations that should be given. This question is not definitely settled yet, and perhaps never will be, for, in my experience, good results are obtained from different methods. If roots are grown, the feeders can be fed two rations each day of about half a bushel of pulped roots and chaff and one feed of chaff and meal; ground peas and oats in equal quantities of each answers very well. The cattle should get some meal along with the roots and chaff. The quantity of meal fed should be increased towards the finishing period. If corn is grown and made into ensilage, it may take the place of the roots. In addition, hay should be fed liberally.

Whether it is more profitable to finish them in the stables or on the grass depends largely on the nature and kind of soil of the farm. If the soil is suitable and adapted for grass, then the summer would possibly be the better time to have them ready for the market. Finishing on the grass is the least expensive, as the cattle require no meal while on the grass, and a less quantity during the preceding winter, than they would if to be finished at that period. But if the farm is more particularly adapted for growing grain, roots and corn, then it is more profitable to finish in the stables. Then, as to the number an ordinary 100-acre farm could turn off each year without interfering (too much) with the other lines of operations carried on the farm. From my own experience and that of my neighbors, I think from six to eight head would be about right. This number can be reared mostly, if not altogether, on the farm. In looking over the weekly markets, we notice carloads upon carloads of Canadian stockers and half finished cattle sent to the Buffalo and other markets. This state of affairs should not exist, for the feeder who does the finishing gets the largest share of the profit. Every farmer who raises a stocker should finish that animal either for the butcher market or for the export trade.

A.R., Lambton County: A one-hundred acre farm of mixed farming should grow five or six acres of sweet turnips and mangels, also eight to ten acres of corn. All good straw should be cut up into chaff as well as all corn (cob and all). If the farm is not hilly the manure should be put out as fast as made and spread on the land. The calves should have new milk for a week or ten days, after that, let the milk be twelve hours old. As soon as they can eat they should have a little dry meal and a little flax seed meal. It will pay well to give this as long as the grass is growing fast (they will not scour then). The calves should have plenty of roots and cut straw and corn as well as clover hay during the winter. They ought to be fed liberally until two years old. Then, at the price paid for cattle now, they would fetch fifty dollars each. A farmer should have six to ten head of export cattle to sell every year, say in March, April or May. The manure of these cattle would

be worth six times as much as straw tramped down in the barn yard. There is not much chance to fatten cattle on grass on a one-hundred acre farm, as it requires all the spare pasture to keep other stock growing well. As soon as stock stops growing the feed you give them is all lost.

E.J., Simcoe County: Just the line of farming that would give the best result to the average farmer on 100 acres would depend on two principal conditions, with a minor one relative to the details of the management. In the first place, if the average farmer of 100 acres is near a well equipped cheese factory and creamery combined, that can secure enough milk so that it can turn over to its patrons a first-class article of cheese during the hot weather at a cost of about 11.8 cents per lb., and butter in the cooler months at a proportionate rate, then I think milk-producing will pay. The best plan is to run the farm for all that it can be made to produce. But as the above conditions exist only to a very limited extent in Ontario, the average farmer might expect to succeed by following somewhat along these lines. Secure, say six good, strong, grade milk cows. Mate them so as to have the calves dropped between the first of October and the first of December. Milk them until the next August or September, when you are very busy and then let them off on a holiday for about two months. The management of the calves might, of itself, occupy more time and space than circumstances will permit just here. But suppose one-half are bulls, castrate early, and keep well until say seven months old before they are let out to grass. Save two of the best heifers to replace two of the worst cows. This will, in all probability, leave three steers, one heifer and two old cows to fatten every year. Feed for spring sale so that the young ones would be two years and a half old. This would result in having eighteen head of cattle during the summer and twenty-four during the winter, and these cattle should realize \$500 per year. With a 60-ton silo and an average farm well tilled, food for these cattle and the horses necessary to work the farm ought to be grown on 50 acres, with the rest of the farm to carry on all other branches.

## Manures and Manuring

By T. C. Wallace, Before the Ontario Farmers' Institute

(Continued from last issue.)

### HOW PLANTS AND ANIMALS FEED.

A consideration in a simple way of how plants and animals feed is necessary, as well as interesting, in studying this subject. Animals take their food in bulk into their stomachs because they, being detached from the earth, have to carry their food with them while moving about. There it is acted upon by the digestive acids which, entering it, make soluble such of the food as can be dissolved by their respective acids combined with the water taken with the food.

They exert muscular action upon it and the liquid food so extracted from the mass in the stomach passes into the system, where, being made into blood, it flows all over the body to nourish the animal, building bone, muscle, flesh, etc. Different classes of animals have their varying degrees of digestion, as for instance, the dog, bear, jackal, etc., which can dissolve hard bone.

Their purpose in the world's economy seems to have been principally for destroying the bones and horns of animals which dying, left their remains on the land, where these carnivorous animals in their turn changed them into a condition to again form plant food.

Cattle can readily dissolve rough fodder and roots, and other animals, such as the horse, ass, etc., with grinders readily handle the coarse grains. We all know what success a cow makes when she tries to get phosphate by chewing bone.

It seems very much on the plan of "chewing air" as far as any food she is able to get from it is concerned. Man cannot properly assimilate either bones or hay, but must have his food partly digested for him by cooking or in the condition of ripened fruits.

The food in a mass, then, is passing through animals



while they are extracting sustenance from it. The plants, on the other hand, being fixed in the earth, pass their feeding roots through their food, and along their root system is the hydrosopic water of the soil, which is impregnated with the plant acids and soil acids. This impregnated water dissolves the soil about it and so renders it fit for assimilation by the plant. We may fairly look upon it as

#### THE FIRST STOMACH

of the plant, and it depends upon the condition of solubility of the surrounding soil as to what extent plant food is digested. Only such substances as are in a condition to be dissolved by this acidified water can be utilized by the plant, so that an abundance of food-forming material may be present in an unavailable condition and yet the plants may be seen starving. Various classes of plants evidently have differing degrees of dissolving power. The plants we grow in our farming operations are mostly cultivated varieties, and differ from the wildlings of nature as widely as the domestic animals differ from the wild animals of the forest and prairie. What I desire now to impress upon you is that the soils of our farms are

#### MINES OF WEALTH,

practically gold mines, and our success in making them pay depends upon our knowledge of them and our using rational methods of cultivation for the extraction of the wealth. It is mostly locked up as tightly as the gold is locked in the quartz, and we must neglect no proper methods within our power to bring these locked-up elements into plant food. This is by far the most important branch of manuring, and in attending to it we must endeavor to adopt measures to ensure permanent benefit, and not merely obtain temporary relief. The use of salt for this purpose is too drastic a measure, and the relief is but temporary, for in a few years evil effects follow. When we consider that its use, either to animals or plants, is almost entirely to aid digestion, and that a whole crop of wheat of forty bushels, including the straw, will only absorb about one pound of salt, we can readily see that it is not a manure otherwise than as a predigester in the soil. The same may be said to a great extent of gypsum (land-plaster), and it is quite within reason that much denudation of fertility can be traced to the practice of using these two materials too freely. Plowing and working the soil, aerating and sunning it, are valuable aids. Fall plowing, making the soil loose, so that the gravity water can assist the formation of new combinations by polarization, helps the case. Anything, in fact, which will assist the play of the elements.

Our next study in this problem is the farmyard manure.

(To be continued.)

## CORRESPONDENCE

### Sheep versus Dogs

To the Editor of FARMING.

I am not in the habit of ventilating my thoughts by writing, but when I read or hear anything said about dogs worrying sheep my indignation rises to that degree that I feel like making war against the whole dog fraternity, and yet there is no animal that I admire more than a good faithful dog. It is the useless curs that cause the trouble and very often they are owned by someone, if owned at all, who to all appearance is about as useless. I believe this dog and sheep question is as important if not the most important question coming before your readers and the agricultural interests in general. There is a great number of farmers, myself amongst the number, who on account of the dog nuisance do not keep sheep at all, and those who keep them are very much discouraged and put to great loss in trying to protect them from dogs by having to watch them continually and are put under the necessity of yarding them through the night in hot weather when they should do the best part of their feeding.

Our sheep industry will not be as profitable as it should be until we raise a greater number, and perhaps I might

say better sheep than at present. There is too much time and money lost in buying a suitable shipment which has a bad effect on both our market and the price realized. All are agreed on the importance of the sheep industry, calling them the "golden hoof" and other nice names, which is all right. Then let us see to it that they have fair play. So far I have merely referred to the evil without indicating a remedy. I would say that any enactment which would lead to the destruction of every dog that did not wear a tag indicating that a dollar or more has been paid for him and that dogs be shot indiscriminately found away from home or owner would be along the right line.

Mr. Editor, if you think the foregoing worthy of a place in your very valuable paper please insert it and oblige,

Yours very truly,

JOHN HARRISON.

Owen Sound, Ont., March 25th, 1899.



## The Farmer's Interest in the Transportation Problem

To the Editor of FARMING:

While Boards of Trade and other bodies representing our great commercial centres are earnestly pondering over the transportation question, it might not be amiss to draw the attention of the agricultural readers of FARMING to this very important problem. . . it be considered a topic worthy of careful study and earnest discussion on the part of the average business man, then surely it should receive much greater attention at the hands of the farmer.

The business man is generally in that almost enviable position, where the cost of transportation is simply an addition to the invoice price of his goods, which he in turn adds to the selling price for the consumer to pay, leaving his margin of profit unimpaired by the freight charges in connection therewith. With the farmer, however, freight makes a direct invasion into his profits, and where the profits are insufficient to satisfy the demands of transportation the latter does not scruple to lay violent hands upon the farmer's capital as well. Of course the legitimate cost of transportation is a justifiable charge against the consumer, but it is just as much the duty of the consumer to see that he is not overtaxed for this service, as it is the duty of the citizen to see that he is not overcharged by his butcher, baker or milkman.

The farmer is not only the largest consumer on earth but the greatest producer as well. It naturally follows that either in one capacity or the other he pays (either directly or indirectly) nearly all the transportation charges of the world. In many instances the same farmers pay the incoming transportation of such goods as they use for consumption on their farms, and also the outgoing freight and ocean rates upon the products of their farms. The Canadian farmer, and the farmers of nearly all other countries where the standard of living is high, consumes goods produced or manufactured both at home and abroad. Articles from all over the globe are brought over sea and land to his farm for his use, and in most cases the cost of transportation is an addition to the price of the articles abroad, which the farmer has to pay, thereby increasing, not only the cost of his living, but the cost of his products of the farm as well. Again, when such farmers come to sell their butter, cheese, animals and cereals, they find that the local prices offered (whether for consumption at home or abroad) are usually the prices for such goods in the world's market less the transportation and other charges necessary to ship the goods in question to the foreign market. In this manner freight rates very frequently cut into the farmer's profits from both sides, and, as already stated, often consume his entire margin. Between these additions of freight on articles consumed and deductions of freight on commodities produced, together with middlemen's profits upon both outgoing and incoming goods, it is not at all surprising that the Canadian farmer's profits, and a good portion of his capital, is often ground out by these "upper and nether millstones" of commerce. Hence, if there is one part of

the community more than any other that should take a deep interest in the transportation question it is the farmer. It is unquestionably to his interest that carrying charges should be reduced to the minimum.

It might be advisable to briefly review what has been done in the past to secure this boon for the Canadian farmer. In the eastern half of the Dominion, where water communication has been a potent factor to secure cheap transportation, the rates have not reached that extreme of extortion practised elsewhere, nevertheless the results have not proven altogether satisfactory, competing roads having been heavily bonused to obtain lower rates, only to find, perhaps, six months of "war" profitable to the public followed by six years of "peace" (profitable to the contending railway companies). Competition in labor, dry goods, groceries, blacksmithing, etc., where thousands can enter into these avocations with a small outlay of capital, may be productive of good to the public, but competition in railroading and kindred undertakings, requiring a vast expenditure of capital, involving large risks and where only a few can find the means to enter the business must be looked upon if not as a total failure at least as a very doubtful success. When competing companies fix rates, as they invariably do to suit both roads, we might nearly as well have a double track of the one line. Where competition is provided in this way instead of one line being run at a profit, the two are made to pay dividends at the expense of the public.

But it has been reserved for the western half of the Dominion to give an exhibition of blind, self-denying devotion to the interests of railway corporations, perhaps without a parallel anywhere. Here, we have given to transportation companies, free of charge, the largest and most valuable portion of our farm lands and have paid, or are paying, our share of the cash subsidies amounting well up to \$100,000,000, to these companies. In return for these trifling sacrifices on the part of the western public (chiefly farmers), we are allowed, after six years of servile bondage to one railway company, to purchase with our own money a slight local reduction in rates.

Our farmers have had the pleasure of repurchasing at prices ranging from \$3.00 to \$6.00 per acre the lands previously given the railway companies. They have had the satisfaction of paying municipal taxation upon the lands of the companies, in addition to their own, for the past seventeen years. They have had besides the privilege of waiting days and weeks every year for the rolling stock of our largest company to become disengaged upon the competing part of their line before getting the facilities for shipping their produce out of the country, and, to crown all, we have been given the distinguished honor of paying the highest passenger and freight rates perhaps ever imposed in the world's history of railroading.

In regard to a remedy for the present unsatisfactory conditions of transportation in Canada, the people of the West should have no hesitation in declaring that *Government ownership* is the most feasible and acceptable solution of the difficulty. We have here seen valuable assets of the State turned over to private corporations to the extent of three or four times the cost of the construction of the roads—they were intended to assist in building—and then we have seen these roads operated, to secure for the companies interested, the highest possible revenue out of the pockets of the patronizing public. In that guileless simplicity of thought and common sense which characterizes the average farmer on the prairie, we do think that we would be much better off if we only had to pay for our roads once, and then could secure their being run in our interests and not in opposition thereto. Of course we are told by a subservient railway press, by paid advocates of the railway companies and by politicians anxious to defend their past conduct towards the roads, that Government ownership is not desirable. But for all this our judgment leads us to believe that it would be an unqualified boon in comparison with our present ruinous method of thrice building the roads and then making a present of them to some soulless corporations, to bleed us *ad libitum* in high freight and passenger rates.

With roads constructed along the natural currents of

trade—no unnecessary lines—economically managed—good connections at road—equitable rates reduced to the lowest point consistent with efficient service and officials chosen because of integrity, intelligence and experience, State ownership of railroads in Canada should prove a powerful factor in increasing the prosperity of every farmer in the country and through the farmer every other class in the nation.

Elva, Man., Mar. 22, '99.

W. A. ROBINSON.

## Practical Poultry Keeping

To the Editor of FARMING.

In your issue of March 21st "J.R." asks certain questions concerning poultry which I shall, with your kind permission, try to answer, and in a way that may be of profit to your general readers. For this purpose his questions, Nos. 1 and 2, may be considered together as they both deal with one point, viz., has heat or its absence any effect on egg production?

With the farmer the hens lay more during the spring months—let us consider why. He raises and keeps a certain number of pullets and disposes of most of his aged hens, and when winter sets in the stock is placed in a small and generally none too comfortable place and fed with waste grain—as a result mature and are in fit condition to lay at an earlier or later period depending upon how early they were hatched in the season, but as such conditions are unfavorable few eggs are laid.

They are necessarily confined for probably twenty three hours of the twenty-four in quarters where they have just about room to turn around during the cold and stormy months of December and January and thus one of the essential circumstances needed to produce laying is lacking, viz., exercise.

Again, the food is not a full ration. No animal food is provided to take the place of the slugs, worms and insects of various kinds which they procure in such quantity during the warmer months, nor is any attempt generally made to provide a green ration to take the place of the grass, which in warm weather constitutes (by bulk) two-thirds of their food, and as for water, they are allowed to procure their own supply (in the form of snow) and melt it. These three requisites, viz.: animal food, green food and water, they go for themselves in the warmer weather, and in their efforts to get these the fourth requisite, exercise, is obtained.

How will artificial heating of their houses provide these principal requisites?

Still a comfortable house will not hurt them, but experience has demonstrated that fuel to warm fowl houses could not be bought by the sale of the extra eggs produced. A house in which the drinking water will not freeze during the day is quite warm enough.

In addition to the house for roosting in, they should have a shed or other place where they may work during the day, and which, by its arrangement, will prove attractive enough to them to incline them to work there. This is easily arranged for by the farmer, because he has a plentiful supply of straw, stalks and litter in which hens love to scratch, and all the whole grain fed them must be deposited there as a reward for their labors.

As to animal feed—the least that can be done would be to save up all the bones and scraps from the house for them—a hard head stone and an old axe will do in a pinch to convert the bone into small enough pieces.

Sixty or seventy degrees is not too warm for a hen house, but it is too warm for hens to roost in, and then expect them to go out during the day to work *with the same clothes on*.

As to what breed of fowls is the most profitable as broilers and as adults, I would only say, that the Rocks and Wyandottes have had the call with broiler men for some years, and when the cattle breeder can answer the question, "Which breed of cattle gives the richest milk and dresses the most beef?" I expect to be able to name the breed of fowl "J.R." is looking for.

JOHN F. HILL.

Welland, Ont., March 24th, 1899.

## QUESTIONS AND ANSWERS.

## GROWING BLACK WALNUTS.

To the Editor of FARMING:

Would some one please let me know what kind of land is best suited for Black Walnut growing? What cultivation is necessary? Do they stand transplanting? Please give me all the information you can and oblige,

FRED FALLIS,

Millbrook, Ont.

March 21st, 1899.

Answered by Professor Hutt, Ontario Agricultural College, Guelph, Ont.

The Black Walnut will thrive on a great variety of soils, from a light sand to a heavy clay, providing they are well-drained. Some of the finest specimens in this province are to be found on the heavy, rocky lands along the ridge of mountain from Niagara to Dundas, west of Hamilton. It has been thought by many that the walnut would not survive in more northern latitudes, but we have planted several hundreds of them on the experimental farm at Guelph and have found them to be quite hardy in this trying climate. Some of the trees twenty years planted will measure eight or nine inches in diameter.

The trees may be transplanted, but we think it would be better to plant the nuts where the trees are to remain. As the seedling trees are somewhat tender, it might be well in your section to protect them for the first and second winters.

This may be done by placing some cedar boughs or brush over them which will hold the snow. Like all other trees when planted singly, they will make the best growth if well-cultivated, but a cheaper and better way would be to grow them as we find them in nature, growing closely together along with other kinds of trees which cover and shade the ground so that cultivation is not necessary. Grown in this way they will form tall, smooth, straight trunks, and the inferior trees can be thinned out gradually as the walnuts require more room.

The walnut makes a comparatively rapid growth, and will begin to bear

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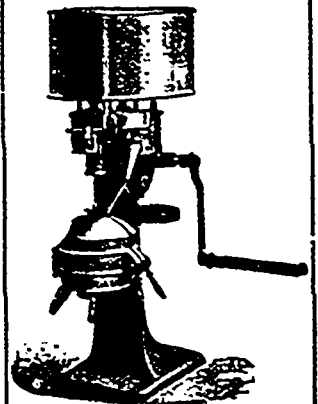
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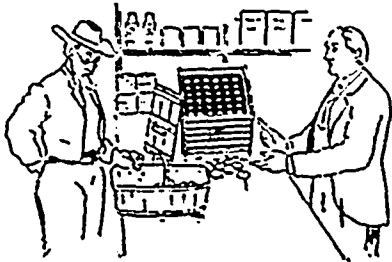
**THE CANADIAN HORSE SHOW.**

The fifth annual Canadian Horse Show takes place at the Armouries, Toronto, on Thursday, Friday and Saturday of next week, and should be largely attended by the farmers of this province. There is a renewed interest in horse breeding throughout the country and a good demand for the right kind of horses. This demand, however, is not for the "scrub" or inferior horse, but for the best types of heavy draft, coach and saddle horses. The very finest types of these will be seen at the coming horse show, and it will pay every farmer twice over to visit this show if for no other purpose than to find out the style and type of horse the market demands. We are informed by the secretary, Mr. Henry Wade, that the prospects are very bright for a large display of the kind of horses the farmer should know something about. This fact, coupled with the many other attractions of the show, should ensure a large attendance. Reduced railway rates, a reduced general admission and the earlier date at which the show is held makes it possible for everyone to visit this great Canadian Horse Show.

**NEW BACON HOGS.**

The Thin Rind breed of hogs, according to the *National Stockman and Farm*, is being pushed in some sections of the United States as the American bacon hog. The breeders of this kind of hog do not appear to have any for sale, as they do not advertise. The official history of the

**Humpty-Dumpty Egg Crates**



See what loss might have been prevented if the new Egg Crates were used by all farmers.

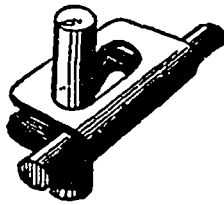
They are exceedingly cheap and very strong and durable.

**Be Sure You See Them.**

**THE DOWSWELL MAN'G CO LIMITED**

If your dealer has not got them send to us for Circulars.

...Hamilton



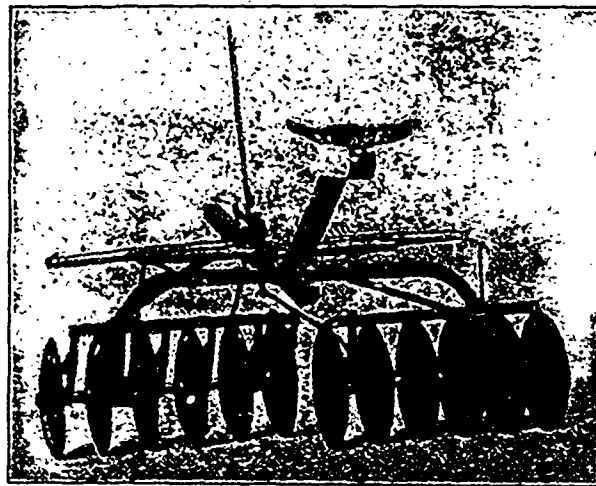
**Farmers Want It**  
and will have it  
**We Make It**  
and want you to sell it

-Write for our Illustrated  
-Fence Catalogue describing it....

**THE FROST WIRE FENCE CO.**  
WELLAND, ONT.

**The Cossitt Bros. Co., LIMITED**

A Record of Over 50 Years as  
Manufacturers of Farm Implements.



To see means to buy

**COSSITT'S**

**All-Steel  
Ball-Bearing  
Disc Harrow**

with Patent Lock  
Scraper and Clod  
Cleaner.

Without a doubt the best  
Harrow in the market.

Send for catalogue describing our Ball-Bearing Mowers; Tiger and Ithaca Horse Rakes; Reapers; Harrows; Sufferers; Corn Shollers; Root Pulpers, Etc.

Our Machines will speak for themselves when put in operation.

Head Office and Works: **BROCKVILLE, ONT.**

**WARRANTED SEED**

As the original Introdurers of the *Cory Corn, Hubbard Squash, Eclipse Beet, Miller Melon, Burbank Potato, All Seasons Cabbage, Danvers Carrot*, and over thirty other well-known vegetables, we solicit a share of the patronage of the public. Prices low. Tested Novelties—some found in no other catalogue. \$100.00 to seed purchasers for a name for our new squash. All our seed are warranted, as per page 1 of our free catalogue. **J. J. H. GREGORY & SON, Marblehead, Mass.**

FIFTH ANNUAL

**Canadian Horse Show,**

Under the joint auspices of the Country and Hunt Club of Toronto and the Canadian Horse Breeder Association, to be held in

**The Armouries, Toronto, Canada**

On Thursday, Friday and Saturday,

**April 13, 14 & 15**

1899.

ENTRIES CLOSE on Wednesday, March 29th, 1899, and should be, as well as applications for Prize Lists, addressed to **H. WADE, Parliament Buildings, Toronto.**

**J. E. Richardson's Selected Seeds**

Special Choice List of Vegetable, Field and Flower Seeds  
These are not cheap seeds, but the best that money can buy

CATALOGUE FREE

WRITE FOR IT

**VEGETABLE SEEDS**

Tomato—Richardson's Cre k-side Glory, 15c. pkt.  
Sweet Corn—Canada's Early Giant, 5c. pkt.  
Potatoes—Carman, No. 3, \$1.25 per bus.  
Great Divide, \$1.25 per bus.

**FIELD SEEDS**

Sugar Beet—Danish Improved, 50c. lb., 5 lbs. \$2.25  
Corn (Field)—Mammoth eight-rowed yellow, \$1.25 per bus.  
Barley—Success Beardless, \$1.00 per bus., 5 bus. and over, 90c. per bus.  
Oats—The New Black Medway (all-old).  
Clover and Timothy. Write for prices.

**FLOWER SEEDS**

Pansies—Richardson's Giant Mixture, 10c. pkt.  
Sweet Peas—Richardson's Princeton Mixture, 5c.  
Verbena—Mammoth Strain, 10c. pkt.  
Morning Glory—Japanese Imperial, 10c. pkt.  
Carnation—Extra Choice Double, 25c. pkt.  
Phlox Drummondii—Mixed large flowering, 5c. Splenden's Crimson, pure white eye, 10c. pkt.

**LAWN GRASS SEED**

Richardson's Special Mixture, 18c. per lb.


Address all communications to

**J. E. RICHARDSON** Seed Merchant and Grower **PRINCETON, ONT.**

hog gives the following description: "In color they are either listed or blacks, the most fashionable of which consist of black extremities with a white belt from four to twelve inches wide encircling the body, including the fore legs, which should also be white. Among other characteristics they have small heads, ears medium length and slightly inclining forward, light jowl, broad back of nearly uniform width, slightly arched; heavy hams, standing very erect on feet with legs set well apart, active and muscular, denoting great carrying capacity, and devoid of excess of bone, jowl and belly. The Thin Rind men claim that 'head, jowl and flabby sow belly are cheap meat,' and that they have bred grossness down to a minimum, which seems a fair claim, as Thin Rinds bring from ten to twenty five cents per hundred pounds more than any other hogs. While they never attain the size of fifteen hundred pounds, they often bounce the beam in excess of six hundred pounds and occasionally exceed seven hundred."

#### MARITIME STOCK BREEDERS' ASSOCIATION

The annual meeting of the breeders of pure-bred stock of the Maritime Provinces took place at Sussex, N.B., on Wednesday and Thursday, March 1st and 2nd. The meeting was a representative one. The programme comprised addresses and papers from the following representative stock-breeders and stockmen of the three provinces: President Elderkin, Amherst; F. L. Fuller, Superintendent Provincial Farm, Truro, N.S.; Major Campbell, Sussex; B. W. Chipman, Secretary Agriculture, Halifax; Hon. C. H. La Bllois, Commissioner Agriculture, New Brunswick; Col. Wm. Blair, Amherst, N.S.; J. A. Macdonald, Hermanville, P.E.I.; Robert Robertson, Supt. Farm, Nappan, N.S.; Hon. Senator Ferguson, Marshfield, P.E.I., and Dr. Jakeman, Halifax. The following are the officers elected for the ensuing year: President, E. B. Elderkin, Amherst, N.S.; Secretary-Treasurer, W. W. Hubbard, Sussex, N.B.; Vice-President of New Brunswick, M. H. Parlee, Sussex; Vice-President Nova Scotia, C. A. Archibald, Truro; Vice-President for P. E. Island, E. R. Brow, Charlottetown, Directors for New Brunswick—H. M. Campbell, B. M. Focett and John F. Frost. Directors for Nova Scotia—W. W. Block, F. S. Block, F. L. Fuller. Directors for Prince Edward Island—F. G. Boorger, Senator Ferguson, J. W. Calbeck. Auditors—C. W. Holmes, Amherst, N.S.; C. H. Blair. Representatives to Halifax Fair—C. A. Archibald, Truro; W. W. Block, Amherst. Representatives to St. John Fair—M. H. Parlee, Sussex; John F. Frost, Hampton. Representatives to Charlottetown Fair—E. B. B. Brow, F. L. Hazard, Charlottetown. Particulars later. J. A. M.



## POPULAR GOODS

## POPULAR PRICES

**Matthews New Universal Seeders and Cultivators**

They save practically all hand labor, that's expensive you know. They open the drill, drop the seed, cover the seed and roll and firm the earth all at one operation. In cultivating they cultivate deep or shallow, cultivate between the row or straddle the row and cultivate on each side of it. Destroy all grass and weeds and leave a mulch of fine earth on top, which effectually preserves the natural soil moisture. They are fast and effective, strong and durable. Our **Horse Hoe** with X beam frame and spring steel standards is unequalled. Our book describing and illustrating scores of more of different styles sent free to anyone.

**Ames Plow Co., Boston and New York.**

#### SUNNYSIDE POULTRY YARDS

I have for sale the following varieties of the richest strains of blood that can be produced, winning 493 Prizes at the following shows: Toronto Industrial, Provincial, Quebec, Galt, Drumbo, Paris, Brantford and Burford. Winter Shows—Ontario, Galt, Brantford and Hamilton.

Choice S.G. and W. Wyandottes, Light Brahmas, Black Langshans, Black Javas, Black Minorcas, Cornish Indian Games, B. B. R. Games, S. G. Dorkings, Brown S. C. Leghorns, Barred, W. and Buff Plymouth Rocks, W. C. Polish, Andalusians, Housans, B. B. R. Game and Pyle Bantams, M. b. Turkeys.

Eggs for Hatching—Light Brahmas, \$3 per setting of 15, all other varieties of poultry \$2 per setting of 15; Bronze Turkeys, \$3 per setting of 9.

**T. A. COX, - Brantford, Ont.**

#### LUCKNOW POULTRY YARDS

Our matings for '09 are the best we ever owned in Red and White Cochins, L. Brahmas, Buff Leghorns, Red Caps, S. L. Wyandottes, Black Minorcas, Langshans, Spanish and Javas. FGGs. \$1.50 per 13. Try our Barred Rock (imported strains), White and Brown Leghorns. Eggs, \$1 per 13. Pekin and Rouen Ducks. Eggs, \$1 per 11. We guarantee a good bat h. and safe arrival of eggs.

d 4-25 Won 300 prizes the past season

**J. C. LYONS, Lucknow, Ont.**

**W. R. VANDERVOORT, Sidney Crossing, Ont.**  
Eggs for sale in from pure-bred Barred Plymouth Rocks, Buff Cochins, Black Minorcas and S. W. White Leghorns, at \$1 per 13; also Pekin Duck eggs at \$1 per 11. [d4-25]

#### WANTED

Two first-class dairy farm hands to go "West." Good wages and steady situations. Apply by letter to office of FARMING, 44-46 Richmond St. West, Toronto. d 3-28

## HATCHED

90 to 100 per cent.

of the FERTILE EGGS in the

## TORONTO INCUBATOR

You can do as well. Write us for particulars. Address,

T. A. WILLITTS, 514 Dundas St., Toronto.

## Des Moines THE BEST AND THE CHEAPEST

SURE TO GIVE SATISFACTION.

## Incubator

Rock Roy Farm Sole Agent for the Dominion. Send 2 cent stamps for Illustrated Catalogue of Poultry and Poultry Supplies. Poultry's Guide, New Edition, 15 cts. per mail. P.O. Address, 24 St. Sulpice St., Montreal.

## SOLD ON TRIAL!

Buy no incubator and pay for it before giving it a trial. Many people have lost faith in incubators because they bought one that was never intended to hatch chickens—made merely to sell.

**The Von Cullen Incubators** are sold on trial subject to your approval. Simplest machine made. A child can operate it. The biggest catalogue and "poultry palates" book published, sent for 5c. Plans for brooders, poultry houses, etc., sent on receipt of 25c.

Von Cullen Incubator Co. 80 Adams St. Delaware City, Del.



**HATCH CHICKENS BY STEAM**—with the 4 simple, perfect, self-regulating **EXCELSIOR INCUBATOR** Thousands in successful operation. Lowest priced 1st-class hatchery made.

**GEO. H. STANLEY**  
Circulars free. Send 6c. for Illus. Catalog. 114 to 120 S. 6th St., Quincy, Ill.

# BINDER TWINE

# FARMERS'

PURE MANILA, 650 FT. TO LB.

SPECIAL MANILLA,

TIGER, STANDARD.

Farmers! Don't be taken in. There is none "just as good." These twines will not bunch at the knotter, and a Binder will run all day without stoppage, thus saving time, annoyance and a "lot o' cussin'."

We pack our twine in bags of the size of ordinary grain bags, and we are not ashamed to put our name upon it. Don't take any other.

## CONSUMERS' CORDAGE CO.

LIMITED,

MONTREAL.

**LITTLE WASTES IN FRUIT CULTURE.**

By H. S. HALL, Kansas Experiment Station.

In the fruit industry the waste often consumes the profits. An inopportune rain or wind at the time when the fruit is just ripening often ruins the hopes and anticipations of a whole year. The failure to use the right kind of a package, and to make the fruit look its best in it often degrades the quality in the estimation of the buyer from first to second class, with the corresponding reduction of price. The crowded market of Saturday often leaves on hand of the grower a few crates of berries which are worthless when the market ripens on the following week. The insects somehow find their way to the fruit, and just at the time when it should ripen we find that it is ruined. Nine cases out of ten of failure in the fruit business comes through loss due to waste.

The successful fruit grower must learn early in his career that his products are at all times tender and quickly perishable. He must, so far as he is able, prevent the contact of any agent that destroys or reduces the value of his fruit. This is not something that is beyond his power. By a vigilant warfare against insects he can greatly increase the quantity and improve the quality of the crop which he is to receive.

Cold storage affords one of the most practical means of preventing waste in the fruit crop that we have. Apples that fall from the tree when almost ripe, and are lost, are frequently ripe enough to be picked and placed in cold storage. The fact that apples for cold storage should be picked while solid is valuable information to those who realize that their fruit is dropping badly while in that state. An ice and cold storage house on the fruit farm is of immense value in preventing the waste in summer fruits that come naturally through rapid decay. Berries, cherries, plums, and peaches can be kept a number of days, even weeks, and there is thus afforded ample opportunity for using or disposing of them. Let the farmer and fruit grower be as painstaking to prevent waste in their products as the packers and the manufacturers are to prevent waste in their large commercial establishments.

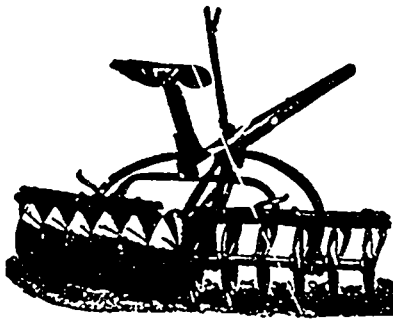
**THE CARE OF THE HORSE.**

Prof. Roberts, of Cornell University, says that the farm horse does not want his skin made too sensitive by frequent use of the curry-comb. He perspires freely and this keeps his pores open. What he does need is to have his feet and legs taken care of. Put your chief care upon him at night, after his day's work is done. Clean out his feet thoroughly, leaving no mud to dry in. He gets rheumatism from it. Only simple tools are needed to work with. First an old broom, and then finish off with a wisp of straw, rubbing legs and feet well, hard and quick. Cut off the fetlock if you like; the feet without it dry off more quickly. To keep the

**FREE**  **WE GIVE** this fine WATCH, with a chain and charm, for selling 2 dozen gold-topped, enamel-backed Lever Collar Buttons at 10c. each, or a lady's watch and guard for selling 3 doz. *No Money Required.* You run no risk. Write and we send the Buttons, post-paid, with our big Premium List. Sell the Buttons, return money, and we send watch, free of all charge. Unsold buttons returnable. Liberal commission if preferred. Be the first in your field. Send your name and address to-day. In writing, mention this paper.

**FOR ONE DAY'S WORK**

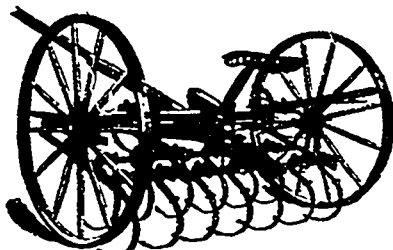
**LEVER BUTTON CO., TORONTO, ONT.**



McLON NEW BUFFALO PATENT ALL STEEL DISC HARROW.

**The Buffalo All-Steel Disc Harrow.**

This is the only Disc Harrow made or sold in Canada, having independent, adjustable spring pressure upon the inner ends of the gang disc, allowing any amount of pressure to be thrown upon the inner ends of the gangs, by the foot of the operator. By this means a perfectly flexible action is secured and the ground can be worked to a uniform depth. Examine this Machine carefully and compare with others.



McLON No. 12 SECTIONAL SPRING TOOTH CULTIVATOR.

**The No. 12 Cultivator**

IS A MARVEL OF SUCCESS. The only Cultivator made that both lines of teeth will cut an even depth in the ground. Examine it and you will see why. The only Cultivator with a movable tooth set so that the angle of the teeth can be regulated to suit any condition of soil. Pressure can be regulated to act differently on every section requiring it. The teeth are carried between the wheels instead of trailing behind, as in other machines, thus securing lighter draft. This machine is furnished with grain and grass seed box when required. It has reversible diamond steel points for the teeth; also extra wide thistle-cutting points can be furnished. Examine it and you will buy no other.

**THE BEST DRILL MADE.**

**The Hoosier Needs No Introduction.**

Over 40,000 Drills and Seeders of our manufacture in use in Canada. The only Drill made with lever for instant and perfect regulation of depth of hoe in all kinds of soil, while team it in motion. Sows absolutely correct to scale, saves seed, as every kernel is deposited at a proper depth to grow. Purchase only the best and you will be satisfied. We also manufacture Binders, Reapers, Mower Rakes, Cultivators and Pulpers, as good as the best. Send for illustrated catalogue.

**McLON BROS. MFG. CO., (Limited)**  
Ingersoll, Ont., Canada

**To the Farmers of this Canada of Ours....**

**WE** heartily thank you for the liberal and increased patronage which has made the past year a record-breaker in our business. Remember, we do not class our

**Queenston Cement**

with the Water-Limes and Hydraulic Cements now on the market, but guarantee it equal to the Imported or Domestic Portlands for all farm structures, such as Basement Walls for Stables, House or Cellar Walls, Cisterns, Hog Pens, Poultry Houses, and for all kinds of Stabling.

Kindly investigate our System of Ventilation. This system is fully covered by letters patent, but to our patrons we make no charge.

Write for our New Pamphlet for 1899, containing valuable information, prices, etc.

**Isaac Usher & Son, Queenston, Ont.**

horse clean and free from dust, a light blanket of cotton or jute costs less than the time for cleaning. Then, too, the blanket keeps the hair straight and keeps it from growing. Never blanket a horse in the stable while he is warm unless you give him a dry blanket shortly after. The driving horse must not be fat, but lean and hard, be well curried, sensitive in mouth and skin.

**MEDALS FOR HACKNEY HORSES.**

We have received a communication from the secretary of the American Hackney Horse Society to the effect that that organization will offer two silver medals at all horse shows in the United States and Canada where the money prizes aggregate not less than three thousand dollars. Formerly this offer was to horse shows whose prize list amounted to \$5,000 or over, which shut out the Toronto Horse Show. This year, however, the Canadian Horse Show, which takes place at the Armouries, Toronto, on April 13th, 14th and 15th next, will be able to take advantage of this offer, as the aggregate of prize money amounts to upwards of \$4,000. These medals are to be competed for under the following conditions: (1) For the best hackney stallion, mare or gelding, any age, by a registered hackney stallion and out of a registered or unregistered mare shown in harness to a suitable two-wheel vehicle. (2) For the best hackney stallion, mare or gelding, any age, by a registered hackney stallion and out of a registered or unregistered mare, to be shown under saddle.

**MAKE YOUR OWN PLANT CUTTINGS.**

BY W. H. MOORE, KANSAS EXPERIMENT STATION.

The cuttings of many of the plants to be used in the flower garden should be rooted during the months of February or March. Geraniums made during these months should be covered with blooms during the summer months if they are given proper care.

Other plants that add greatly to the beauty of the garden, and which may be propagated by cuttings, are the Coleus, Iresine, Althermanthera, and Centaura. These plants all root readily from cuttings; they can be started in a cutting box in the window, which should be as long and wide as desired for the limited space and about four or five inches deep. It should be filled with clear river sand. When the cuttings are first made they should be shaded during the heat of the day and sprinkled several times a day until the cuttings become thoroughly established. The sand should always be kept moist but never wet.

Cuttings are often rooted in a deep plate filled with moist sand. There are various contrivances used for rooting cuttings, but in each case the rooting medium is clean moist sand. Soil is apt to become saggy.

**ROOFS FOR THE KLONDIKE**



**ROOFS** must be chosen with care and judgment in any country, and especially so in Canada.

All our products are constructed for use in Canada, and ample provision is allowed for contraction and expansion, and we guarantee them to be water, wind and storm proof.

Information from any dealer, but should he offer you something "just as good," write us.

Pedlar's patent steel shingles are the best, and the best cost no more than the poorest.

**Pedlar Metal Roofing Co.**  
**OSHAWA, CANADA.**

**NURSERY STOCK IN VERITY!**



Our new catalogue is our agent, giving descriptions, PRICES, and how to plant fruit, ornamentals, shrubs, ROSES, Clematis, evergreens and small fruits. All well assorted, clean and handsome at the Central Nursery. Shall we send you one—nineteenth year? Also choice Seed Potatoes.

One Campbell's Early Grape Vine, two years, by mail, 75c.

**A. G. HULL & SON,**

Mention this paper.) St. Catharines, Ont.

**COLOR** and flavor of fruits, size, quality and appearance of vegetables, weight and plumpness of grain, are all produced by Potash.

**Potash,**

properly combined with Phosphoric Acid and Nitrogen, and liberally applied, will improve every soil and increase yield and quality of any crop.

Write and get Free our pamphlets, which tell how to buy and use fertilizers with greatest economy and profit.

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

USE

**Ulrich's  
Ensilage  
Corn**

MAMMOTH WHITE  
GIANT PROLIFIC  
YELLOW DENT  
IMPROVED LEAMING

**E. R. Ulrich & Sons**  
SPRINGFIELD, ILL.

Ask your dealer for samples and testimonials.

**Ewing's Selected Seeds**

Are thoroughly reliable, and better cannot be found. We MAIL FREE our ILLUSTRATED SEED CATALOGUE FOR 1899

TO ALL WHO WILL SEND US THEIR ADDRESS

PLEASE SEND FOR ONE

Our Assortment comprises all the best varieties of Garden, Field and Flower Seeds, as well as Clovers, Timothy and other Grasses, Corn and Seed Grain. Spray Pumps, etc. Thomas-Phosphate Powder and other artificial manures. Flowering Plants and Bulbs.

**WILLIAM EWING & CO.,**

142 McGill Street, MONTREAL.

**HELDERLEIGH  
FRUIT FARMS and NURSERIES**

400 ACRES



Sixteen years' experience. Everything wanted that is useful and valuable in the Nursery Stock line—either FRUIT or ORNAMENTALS.

SEND FOR CATALOGUE, which is furnished FREE to applicants.

Do not make the mistake of buying cheap stock—it is dear as a gift.

GOOD RELIABLE SALESMEN WANTED in a number of fine townships, to start work at once. Complete Outfit FREE.

Address, **E. D. SMITH**  
WINONA, ONT.

**PERMANENT PASTURES.**

Mr. Albion Rawlings, Forest, Ont., who has had a wide experience in growing all kinds of grasses, commends very highly the mixture given by Professor Day in our issue of Feb. 7th last. Mr. Rawlings has tried it, and claims that it is the best for a permanent pasture he knows of. The mixture is as follows: Orchard grass, 5 lbs.; meadow fescue, 5 lbs.; timothy, 3 lbs.; alsike, 2 lbs.; alfalfa, 5 lbs.; white clover, 1 lb; and red clover, 3 lbs. Total, 24 lbs. per acre. This mixture is recommended for land well-drained, naturally or otherwise.

**Publishers' Desk.**

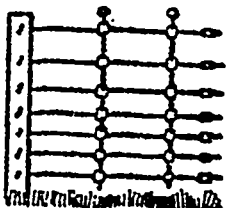
**Seeders and Cultivators.**—The Ames Plow Co., of Boston and New York, is advertising Matthews' New Universal Seeders and Cultivators in another column. This company is one of the most extensive manufacturers of tillage machinery in the United States, and a catalogue of their machines will be interesting reading to farmers generally. It will be sent free to any one who will take the trouble to apply for it by post card.

**Butter Wrappers.**—The quality and appearance of a package is very often an important factor in fixing its market value, and, as a distinguishing characteristic of the article, should be uniformly of the best material obtainable. This applies particularly to butter, which should not only have an attractive appearance, but is easily injured in flavor by the use of inferior material in the wrapper. The *Sentinel-Review* advertises butter wrappers which are said to be printed on genuine vegetable parchment made specially for the purpose, and which are guaranteed to be free from all objectionable features. Free samples will be sent to any address on application to the *Sentinel-Review*, Woodstock, Ont.

**Sheep and Cattle Labels.**—Please read the advertisement of Mr. R. W. James, of Bowmanville, Ont., in this week's FARMING. It seems to be unknown to many users of sheep and cattle labels that they can be obtained in Canada, and parties using them have been accustomed to send to the U.S. for their supplies. We can highly recommend these made by our friend, Mr. James, as we have been furnishing them to subscribers as premiums for the past two or three years, and believe they have given satisfaction. Mr. James manufactures a spring ear punch, which is a very handy tool for inserting the labels. He also makes a handy bag-truck and bag-holder that is not nearly so well known as it deserves to be. Mr. James being an exceedingly modest man, and a good and honest one as well, is perhaps less active in pushing and puffing his manufactures than others who are more aggressive, but it is not from lack of confidence in their merits. They are really equal, if not superior, to any of the similar articles we see advertised so extensively.

**Fence Machine Free**

With 100 Rods. Gold Stem-Wind Watch Free.

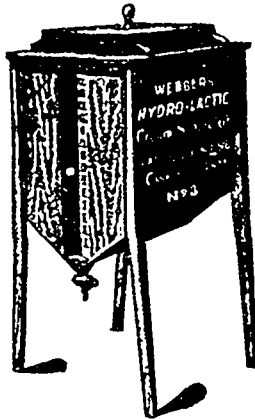


To introduce Diamond Grip Fence in new localities. Don't have to wind wires around each other (like old woven fences), as cross wires are gripped and protected from weather; can never slip or break; 5 times as strong and lasts 10 times as long, as any woven wire fence made; can use coiled spring, plain, twisted or barb wire. Cheapest Fence in end that was ever invented. Agents wanted; write quick to

CANADA FENCE CO., London, Ont.

**GOOD FARM FENCE**  
 should turn all kinds of live stock and even traps; should expand and contract according to the weather so as always to be tight; should stand all storms—over fire and last indefinitely.  
**The Coiled Spring Page**  
*Is just such a fence.*  
 Its virtue is attested by the fact that there is more of it in use than all other makes combined. Prices lower than ever this year.  
**THE PAGE WIRE FENCE CO., (Ltd.)**  
 WALKERVILLE, ONT.

**Webber's Hydro-Lactic Cream Separator**



**Combines**

**SIMPLICITY OF OPERATION  
 ECONOMY OF TIME AND LABOR  
 THOROUGHNESS OF WORK  
 DURABILITY AND CHEAPNESS**

It is the happy medium between the old-fashioned methods of cream-raising and the modern expensive centrifugal separator.

Every farmer with two or more cows should have one.

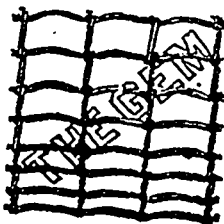
**PRICES, \$7.00 to \$14.00**

(According to size)

Write for descriptive circulars. Agents wanted

**J. F. GILL & CO.**

NIAGARA FALLS, ONT.



**FENCE MACHINE**

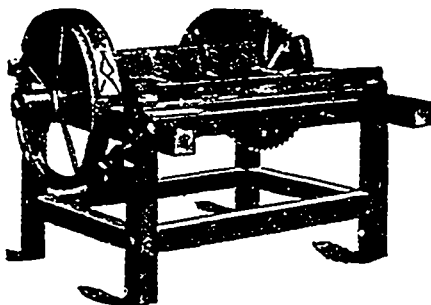
Still at the front! Not only the cheapest, but fastest and best. Price \$5 00.

Highest grade WIRE Coiled and other for sale. Write for particulars. Agents Wanted.

McGregor, Banwell & Co., Windsor, Ont.

d-3-14

**Experience Teaches**



LANCASTER MACHINE WORKS, Lancaster, Ont.

GENTLEMEN:—

I have used one of your Jubilee Circular Sawing Machines for two seasons and am perfectly satisfied with the work done by it. I have used other sawing machines but find yours the fastest cutting and lightest running of them all, doing more work than any other make. With a 26-inch saw I can cut a twelve inch stick without turning it. When cutting small sticks I put about eight inches under the heel of my power and then had to apply the brake frequently. The machine will cut easily 25 cords of hardwood a day.

Yours truly,

PETER K. McLENNAN,

Cashion's Glen, Ont. March 17th, 1899

**The Spramotor First**

A TRIAL of Appliances when conducted by a BRITISH GOVERNMENT, is sure to prove a valuable asset to the WINNER.

Rival manufacturers would gladly have us let the result of the Contest of Spraying Apparatus die, but how would this suit the purchasers of this kind of apparatus, who have been buying apparatus that has not been satisfactory in use and has caused more people to delay the practice of spraying than all other causes combined? Send for full particulars in our copy-righted catalogue on the diseases affecting fruit trees, vegetables etc., and their remedies.

Over 100 GOLD MEDALS AND THE HIGHEST AWARDS have been granted the Spramotor in 8 years.

Sixty-eight outfits are in use by the Ontario and Dominion Governments for experimental work. Adopted by six American and European Governments.

Certificate of Judges' Award:

THIS IS TO CERTIFY that at the Contest of Spraying Apparatus held at Grimsby, under the auspices of the Board of Control of the fruit experimental stations of Ontario, in which there were eleven contestants, the Spramotor, made by the Spramotor Co. of London, Ont., was awarded First Place.

H. L. HUTT, H. PATTIN, Judges.

Agents Wanted.

**SPRAMOTOR CO.**

357 Richmond St., London, Ont.

CANADIAN OFFICE, SCHOOL FURNITURE

FINE BANK OFFICE, CHURCH & LODGE FURNITURE, SEND FOR CATALOGUE



**The Hydro-Lactic Separator.** — Messrs. J. F. Gill & Co., of Niagara Falls, Ont., whose advertisement appears on page 585 of this issue, have issued a pamphlet entitled "Webber's Hydro-Lactic Cream Separator; What It Is, What It Will Do," and everyone who keeps cows, whether the number be large or small, should have a copy of it. One of the claims made on behalf of the Hydro-Lactic Separator is that it "will save more than twice its cost each year in increased yield over any pan system; it requires no ice, and is as easily cleaned as an ordinary milk pail." The company present many testimonials from their customers, and all speak in the highest terms of praise regarding the machine. Send for a copy of this pamphlet and investigate the merits of the machine.

**More Testimony.**—The business-bringing qualities of an advertisement in FARMING is being better understood and appreciated every day. Messrs. J. F. Gill & Co., the manufacturers of the Hydro-Lactic Cream Separator, of Niagara Falls, Ont., write on March 25th, "Your paper seems to reach the people we want to do business with, as we are receiving numerous enquiries every day." This is not a matter of surprise to regular advertising patrons, because FARMING goes to nearly all of the most progressive farmers in the Dominion, and ever since its adoption of the weekly issue has proved itself to be the best medium in Canada for reaching that class of the community. But nothing less than an actual test will convince some advertisers of the fact.

## Stock Notes

MR. A. J. RUSSELL, of Cobourg, Ont., writes on March 25th, 1899: "With pleasure I enclose \$1, my subscription for 1899. I am coming west this week to buy some purebred cattle that were brought to my notice by your paper." This is another practical evidence that FARMING does bring substantial results to those stock breeders who make use of its columns for the purpose of advertising their stock for sale. Last week the same fact was very strongly emphasized by the sale of a carload of stock by a leading advertiser to parties in Nova Scotia. Last week also Mr. James McCarty, of Ward's Creek, N.B., visited Ontario for the purpose of buying purebred Ayrshires. He informed us that the first herds he visited were those he saw advertised in FARMING. Facts are hard to down, and these, with scores of other instances we have given of a similar character, should convince advertisers that they can reach the best class of buyers in no other way than by an advertisement in FARMING.

MESSRS. WM. STEWART, JR., & SON, of Menie, Ont., are advertising choice Ayrshires and purebred poultry in FARMING this week. Their herd of Ayrshires is a noted one, and has frequently been written up in the columns of

## Lump Jaw

If once gains a foothold in your herd will in all probability carry off from ten to twelve per cent.

### MITCHELL'S ANTI-LUMP JAW

has proved by its effective work that a bottle of it should be in every cattle raiser's hands.

**WE ABSOLUTELY GUARANTEE  
TO CURE ALL CASES.**

If it fails we return your money. Endorsed by Canada's leading cattle exporters, Gordon, Ironside & Fares, Montreal and Winnipeg.

Price \$2.00,

Postpaid to any address.

**FREE**—Treatise on Lump Jaw and booklet of Testimonials sent on request.

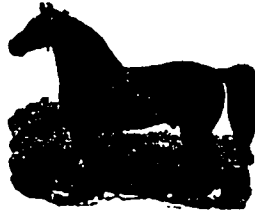
**W. J. Mitchell & Co.,**

CHEMISTS,

Prince Albert, N.W.T.  
Winnipeg, Man.

## Griffiths' Veterinary ...Menthol Liniment

A Veterinary Medicine Chest in Itself  
and the most Useful Home Remedy  
for Horses and Cattle.



IT CURES

Strains, Curb, Chapped Hocks, Wind Galls, Splints, Strained Tendons, Rheumatism, Over Reaches, Coughs, Colds, Sore Throat, Founder, Lameness, or any Soreness, Swelling, or Inflammation.

Griffiths' Menthol Liniment is endorsed by the highest live-stock authorities as the greatest of external applications.

It never blisters or removes the hair; should be in every home.

Sold by Druggists everywhere—  
25 and 75 Cents

**The GRIFFITHS AND MACPHERSON CO.**

SOLE PROPRIETORS

TORONTO and VANCOUVER, B.C.

## LEADING COLLEGES OF CANADA

TORONTO

## THE Best Job

Invariably goes to the one with best brain—one who has education, special training. Why not qualify for one of the best places going? You have the chance. The

**CENTRAL BUSINESS COLLEGE, TORONTO**

opens the door to success for many young Men and Women each year. It offers splendid equipment, thorough work, a strong staff and good results.

You may enter at any time. Write for prospectus. W. H. SHAW, Principal.  
Yonge and Gerrard Sts., TORONTO.

STRATFORD.

"NONE BETTER IN THE DOMINION!"

Central  
*Business College*

STRATFORD, ONT.

A Commercial School of the Highest Grade. Twice as large as many of the commercial schools in the larger cities; enjoys a large patronage; Staff of Nine Male Teachers; moderate rates, board cheap. Students admitted at any time. Write for beautiful Catalogue.

W. J. ELLIOTT, Principal.

## A SMART PUBLICATION

that pleases its readers will please its advertisers. The Co-Operative Farmer has the name of being a successful paper that pleased its readers from the start. Fathered by the leading farmers' organization in New Brunswick, it was quickly adopted and endorsed by the other Farm, Dairy and Stock Associations of the Maritime Provinces, and is to-day the Home Farm Paper of Eastern Canada.

Free Sample Copy and advertising rates on application to

**CO-OPERATIVE FARMER,**

Sussex, N.B.

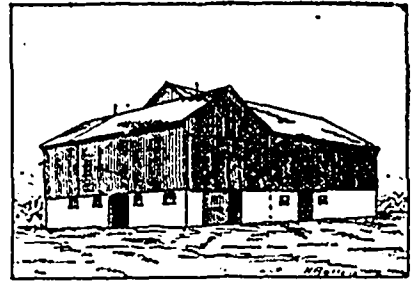
Established 1841.

53 Years in Use.

WORK DONE WITH

## Thorold Cement

SPEAKS FOR ITSELF



ILDERTON, ONT., MARCH 9th, 1899.

ESTATE JOHN BATTLE, Manufacturers Thorold Cement, Thorold, Ont.

DEAR SIR,—I have much pleasure in testifying to the excellence of your Thorold Cement for building purposes. In June last year I built under my barn a concrete wall of your Thorold Cement. It turned out a splendid job, and I have no hesitation in recommending your Cement to those requiring its use. Your traveller called here and gave me instructions for a few hours as to the proper method of using it. I then completed the wall myself. Yours truly, R. W. JACKSON, County Councillor, Middlesex Co.

E.S.—It is with pleasure I give you my testimonial, as your Thorold Cement is all you represent it to be. R. W. J.

Our Thorold Cement is the best and cheapest for Silos, Barn Walls, Floors for Horses and Cattle, Pig Pens, etc. Write us for free pamphlet and full particulars.

AGENTS WANTED in unrepresented districts

## ESTATE OF JOHN BATTLE

Mention this paper. of. THOROLD, ONT.

## Winona Nursery Co.

OFFERS FOR  
SPRING of 1899

A full line of stock, both fruit and ornamental, at very moderate prices. No agent's commission to pay.

Send for price list and catalogue. Dealers will find it to their interest to correspond at once with

J. W. SMITH, Manager,  
Winona, Ont.

## DEAL DIRECT

IF YOU CAN USE ANY:

Grape Vines, Currant Bushes, Ornamental Shrubs, Shade Trees, Norway Spruces or other Evergreens, or any Fruit Trees or Plants, write to

**E. MORDEN,** NIAGARA FALLS,  
SOUTH,

for his Price List. Stock reliable and cheap and can be shipped to any point in Ontario in good order and season if order arrives early enough.



Sheep, Cattle, Calf and  
Hog Labels.

Send for circular and prices.

R. W. JAMES,  
Farm Implement Forwarding Agency,  
Bowmanville, Ont.

FARMING in the reports of the leading Canadian fairs. Last year they carried off no less than nine prizes, representing nearly every class shown at the Toronto Industrial. At London, Ottawa, Cobourg, Peterboro, and other local fairs they were equally successful. A group of young cattle owned by this firm is the subject of an illustration in our issue of September 20th, 1898. In poultry the pens of Messrs. Wm. Stewart & Son are pretty hard to beat. The different varieties bred by them were shown last year at the Toronto Industrial, London, Ottawa, and the other principal local shows, and were amongst the leading prize-winners at every exhibition.

Sales from Brookbank Holstein herd continue good, write A. & G. Rice.

We have sold to Mr. David Rife & Son, the well known milkman of Hespeler, the cows Blossom Jewel 2nd and Jewel Martis Queen, a prize winner at our large shows. They also purchased the yearling bull Admiral Dewey.

Mr. C. W. Beaver, Prescott, Ont., purchased a seven months' old bull. Dewdrop's Paul de Kool, and the imported cow, Ruby Wayne, go to increase the herd of Mr. D. Coho, New Durham. Mr. G. N. Brntnell chooses Daisy Jewel 2nd, a fine young cow, daughter of Daisy Texal and sister to Daisy Texal 2nd, that won in her class at Brantford. We are all sold out of yearling bulls, and are sorry, as we are getting enquiry every day. Our oldest are 7 months old. We have a fine lot of youngsters just imported from Ohio. Bull, 3 months old, Count Calamity Clay; his dam is a daughter of Calamity Jane, and sire is a son of Eunice Clay. He unites the blood of those two wonderful cows.

CANADIAN IMPORTATIONS.—One of the firm of D. G. Hanmer & Sons, Mt. Vernon, intends to sail for England the last week in May, the object being to visit the flocks of the best Shropshire breeders in England and make selections therefrom to increase their already excellent flock, which has been diminished by very heavy sales during the past winter. This firm sold and shipped to the United States, during 1898, 200 ram and ewe lambs and over 100 ewes. These animals were bought by parties in Minnesota, Wisconsin, Indiana, Iowa, Ohio, and Michigan. Mr. Hanmer writes us under date of March 23rd that he is prepared to select and bring animals for other Canadian breeders. The Messrs. Hanmer are very reliable, each member of the firm being an excellent judge of cattle, sheep, swine, and light horses. We can heartily recommend them to parties who wish to obtain stock from the flocks or herds of Britain.

Lamorbey, Sidcup, Kent, Eng.

## IMPORTANT SALE OF FIRST CLASS SHORTHORN CATTLE

JOHN THORNTON & CO. will sell by auction on

Thursday, April 20, 1899  
at one o'clock

at LAMORBEY, 15 miles from London, the very choice and entire herd of pure-bred SHORTHORNS, belonging to E. Heinemann, Esq., consisting of some of the best tribes of Shorthorn blood, viz., the Annas, Brights and Ribys, the Homespuns and Bliss from Warlabby, and some excellent specimens of the Alpine branch of the Mantalinis and the Hecubas from Killerby. Among the sires are several famous Warlabby bulls. Mr. J. Dean Willis' Mountain Victor 67520, of the same line of blood as the Royal prize bull Count Victor, and Royal Bright 74138, purchased at the Warlabby sale, are now in service and included in the catalogue.

Catalogues may be had of JOHN THORNTON & Co., 7 Princes Street, Hanover Square, London, W., who will execute commissions and attend to shipment and insurance.

Telegrams—Shorthorn, London, England

# Canadian Farmers!

## 5 GOOD THINGS

**DANISH ISLAND OATS**-- Best White Oat in the World!

Mr. Steele, of Lobo, grew 5,000 grains from one kernel. Price, 75c. per bush.; 5 bush., \$3.25; bags, 15c.

**CARROT**--Pearce's Half-Long White-- Heads list at Experimental Farm Guelph. Price, 40c. per lb. post-paid.

**MANGEL**--Pearce's Canadian Giant-- Best Mangel grown. Per pound, 12 cents; Post-paid, 16 cents.

**SUGAR BEET**--Danish 'mproved-- True stock. This is no novelty. Stock not controlled by any one seed house. Our stock equals any ever offered. Price, 30c. per pound; pos -paid, 34c. Four pounds enough for one acre, \$1.20, post-paid.

**WEBB'S GIANT KING SWED** -- A large, handsome tankard-shaped variety. Splendid quality. A grand turnip for stock. Price, per pound. post-paid, 24c. TRY THEM. ORDER EARLY.

## JOHN S. PEARCE & CO.,

Seedsmen to the Canadian People.

Please mention this paper.

LONDON, ONT.

### BUTTER WRAPPERS.

THE SENTINEL-REVIEW  
WOODSTOCK, ONT.,  
importers Genuine VEGETABLE  
PARCHMENT for butter wrap-  
pers. It is the largest house  
in Canada selling and printing  
butter wrappers. This paper  
is not an imitation. It is the  
order in Germany, especially for  
the Canadian market, and its purity and sanitary qualities are guaranteed. It is very strong, has a nice, silky finish, fine fibre, and will not taint the butter like cheap imitations. Highest testimonials from dairymen all over Canada. We sell these butter wrappers, 7 1/2 x 11 inches, cheaper than any house in Canada, and large dealers who have wrappers printed should get our samples and quotations. Free Samples sent anywhere. Address,  
**SENTINEL-REVIEW,  
WOODSTOCK, ONT.**

## To Dairymen of Manitoba and N. W. T. Districts:

We beg to call your attention to our having opened a Branch of our business at Winnipeg, where we will carry a complete line of all articles required in the manufacturing of Butter and Cheese, for either Creamery or Dairy, and at such prices as will enable you to save money.

Heading lists of goods stands the full line of "De Laval," "Alpha" Power and Hand Separators, which are to-day conceded by our leading Experiment Stations and Dairy Schools, as well as advanced Creamery and Dairymen to be the best cream separators on the market to-day, and other goods of the same standard of merit, which will appeal to all dairymen as worthy of their consideration before purchasing elsewhere.

Our object in opening this branch is to be near the dairymen of Manitoba and the N.W.T., so as to better serve those who have favored us with their patronage in the past, either direct or through local agents, and to acquaint ourselves with new customers. All of which will result to our mutual interest.

The users of any style of "De Laval" separators, who are not fully posted on operating same to best advantage, or those desiring any more information on the Separator question, we shall be pleased to hear from, assuring them that such enquiries will have prompt and satisfactory attention. Any who contemplate the purchase of a cream separator this spring, we should be pleased to hear from, so as to send them reading matter that will prove of much interest and benefit, giving experience of dairy authorities on cream separators, showing first cost is not the only consideration in a separator purchase. If what facts we produce are not convincing enough to any intending buyer that the "De Laval" "Alpha" Separators are the best, we will be pleased to place one of such separators in any dairy on a 15 or 30 days' trial, against any cheap infringing separator, to prove by practical results that the "DE LAVAL" is not only the Best but also the Cheapest. Let us hear from those in any way interested.

For further information or particulars, address

THE CANADIAN DAIRY SUPPLY CO.,  
236 King St., Winnipeg, Man.

We want local agents in every Dairy District.

tf

**CHOICE AYRSHIRES AND POULTRY**

FOR SALE.—A number of Choice Young Bulls, Sired by Jock Morton and from heavy milking dam; also a few Heifers. A large number of cho. Barred Rocks and Black Spanish, and a few fin. Toulouse Geese and Cayuga Ducks.

**JAS. McCORMACK & SONS,**  
ROCKTON, ONTARIO

**AYRSHIRES**  
... For Sale

The celebrated stock bull

**"WHITE PRINCE"**

A winner at the World's Fair, Chicago. Parties desiring a first-class stock bull cannot do better than secure this animal. Large White Yorkshire pigs of the bacon type for sale, also a standard bred mare in foal, sired by **Red Chief**. Colt sired by **Elm City**.

**JOHN H. DOUGLAS,**  
WARKWORTH, ONTARIO

**BOWHILL STOCK FARM,**  
.... Teeswater, Ont.

**FOR SALE**

1 SHORTHORN BULL, 14 months old, color red, in fine form and good quality. Dam English Lady Sib, by Victor G.; Sire Albert Victor (Imp.)

**G. B. ARMSTRONG,**  
Box 3. TEESWATER, ONT.

...FOR SALE...

**8 SCOTCH SHORTHORN BULLS**

From 10 to 18 months old. 1 BULL 2 years old, bred by O. & W. B. Watt, Salem. Also a number of

**COWS AND HEIFERS**

**DAVID MILNE,** - - - Ont.

A New Importation of

**Clydesdale Stallions**

Arrived Oct 31, 1898



The largest importation of the breed made in five years, and 80 per cent. of them Scottish Prize-Winners. A few choice

**HACKNEYS**

for sale. Address

**ALEX. GALBRAITH**

JANESVILLE, - - WISCONSIN

**FOR SALE**

**THREE HACKNEY STALLIONS** (two imported)  
**ONE HACKNEY MARE** (imported)

The above are offered to an IMMEDIATE purchaser at exceedingly low prices.

OOO

Address— d 4-11  
**BOX 502, WOODSTOCK, ONT.**

**Hermanville Tamworths**

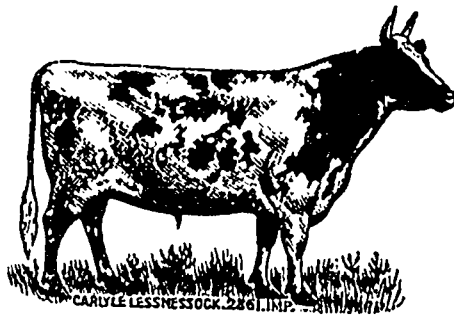
**PIGS**

Ready to wean.  
1 Pig, \$10.00  
2 Pigs, \$18.00  
3 Pigs, \$25.00  
Express Prepaid

Grand bacon stock.

"Parkhill Mab I," "Parkhill Mab II," "Parkhill Mab III," and "Princess" are due to farrow in May and June. Their pigs you may have at these prices if your express office is east of Lake Huron. Cash to accompany orders. No after charges. Satisfaction or no pay. TAMWORTHS, non-selective and CROSS BREDS also delivered free at two-thirds above prices. if

Address HERMANVILLE FARM, P.E.I., CAN.



**PUREBRED AYRSHIRE**  
IMPORTED CATTLE

Largest and Most Expensive Importation in America

Bred for the Dairy, with Grand Constitution, and Champion Prize Records awarded them in Scotland and England.

Sweepstake Herd—Montreal, Toronto, London and Ottawa in 1897

Awarded four years in succession Herd Prize at Ottawa's Great Exhibition, and Special Gold Medal. At Montreal, Herd Prize and Mr. W. W. Ogilvie's Special \$100 Prize.

Their individual Prize Records are of the same distinguished honors of the four years of their exhibition career.

Stock all Ages for Sale, and at prices in reach of all

Maple Grove Ayrshire Stock Farm  
LYN, ONT.

Line—G.T.R.

**R. G. STEACY,**

Importer and Breeder,

Box 720.

BROCKVILLE, ONT.

**FOR SALE.**

**THREE AYRSHIRE BULLS,** Fit for service, of choicest breeding, and from heavy milking dams.

**POULTRY.**—Br. Eggs from L. Brahmas, Indian Games, Houdans, B. Minorcas, Golden Wyandottes, Silver G. and Colored Dorkings, S. Spangled and Golden Pencilled Hamburgs, Silver, Golden and W.C.B. Poland, Single and Rose Comb White and Brown Leghorns, and Black Leghorns, Aylesbury and Rouen Ducks, and Bronze Turkeys. We have only one breeding pen of each variety, and those only the very best. Our fowls and cattle won highest honors at Toronto, London, Ottawa, Cobourg, Peterborough, and other smaller shows in 1898. All stock guaranteed as represented. For particulars and prices write

**Wm. Stewart & Son.**

MENIE, ONTARIO

**W. D. FLATT**

HAMILTON P.O. and TELEGRAPH OFFICE



.... OFFERS FOR SALE ....

TEN Choice Shorthorn Bulls, from six to twelve months, twenty-five Cows and Heifers served by imported bull, Golden Fame #26050; also Large Yorkshires of choicest breeding and quality from imported and Canadian-bred stock of True Bacon Type. Catalogue sent on application. Visitors met at G.T.R. or C.P.R. if notified.

Hursley Stock Farm.

**A.J.C.G. JERSEYS**

St. Lambert Blood.

Young Bulls ready for service, and stock all ages, second to none in Canada, for sale.



Large Improved Yorkshires

Write for Bacon Pigs, all ages. Boars ready for service, etc.

PRICES ARE RIGHT. Delivered anywhere

**SILLS, SHAVER & SON,**

WINCHESTER SPRINGS, ONT.

**Binder Twine**

Agents Wanted. Ontario Binder Twine Co., 124 Front St. West. Toronto, Ont.

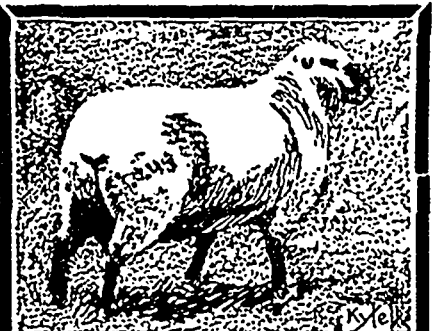
BIG MONEY FOR AGENTS

**THE STAR RIVETER**



For MENDING HARNESS, BELTING, etc. Indispensable to Farmers, Livemen and Threshermen. **STAR RIVETER** complete, with 50 tubular rivets \$2.00. Best selling article ever introduced. Agents write for special prices and territory.

ENTERPRISE MAN'G CO., - TORONTO, ONT.



**Persiatec Sheep and Animal Wash**

A powerful non-irritant and healing preparation that is proving a boon to farmers all over Canada for sheep and cattle ailments, such as:

- TICKS
- MAGGOTS
- GANGRENE
- SHEAR CUTS
- RED LICE ON SHEEP
- WOUNDS
- RINGWORM
- BRUISES, ETC., ETC.
- AND SCAB.

Full directions on every can. Cures the worst cases. The most effective and economical dip on the market. If your dealer can't supply you, write us direct for it, and if there's anything out of the ordinary in the ailments of your flocks and herds we'll be pleased to give free any additional advice in the matter

**The Pickhardt Renfrew Co.**

(LIMITED)

STOUFFVILLE, ONT.



Trade Mark

# The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

## THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$2.

### BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 9,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

F. W. Hodson, Secretary.  
Parliament Buildings Toronto, Ont.

### STOCK FOR SALE.

The next list of stock for sale will be published April 18th. In order to insure insertion lists should be received by the secretary, F. W. Hodson, Parliament Buildings, Toronto, not later than April 11th.

The attention of breeders is called to the notice at the beginning of the Gazette, which is a weekly one, and gives full particulars concerning the Associations.

### INSTITUTE MEETINGS.

The following is the average attendance at meetings, reports of which have been received since the last list published:

Huron, West.....	112
Middlesex, North.....	81
Port Carling and Bala.....	36
Victoria, East.....	90

The following is a list of members received since the last list published:

Brant, South..	19
Bruce, North.....	4
Bruce, West.....	2
Grey, Centre.....	1
Huron, East.....	54
Norfolk, South.....	7
Oxford, South.....	11
Ontario, North.....	76
Ontario, South.....	99
Perth, South.....	15
Victoria, East.....	3
Waterloo, South.....	20
Wentworth, North.....	1

### SECRETARY'S REPORT.

(Continued)

The following form has been prepared and will be forwarded to intending shippers upon application. The object is to obtain accurate information as to the shipment, also to bind shippers to pay for space in the car arranged for. This has been found necessary on account of parties ordering space in a car, then after a car is

partially loaded it is found that two or three of the animals have been shipped in some other way. This has caused the charges for the stock included in the car to be higher than would have been the case had the car been filled, or else the car must be forwarded at a loss, as was the case on two occasions last year.

### FORM.

Dear Sir,—Kindly reserve space for the stock named hereafter in the next carload of thoroughbred stock for Manitoba and the Northwest Territories, to be shipped under the auspices of the Dominion Live Stock Associations.

Cattle.	
Number.....	.....
Male or female.....	.....
Age (in months, if under 24 months)....	.....
Breed.....	.....
Sheep.	
Number.....	.....
Male or female.....	.....
Weight (including crate).....	.....
Brand.....	.....
Swine.	
Number.....	.....
Male or female.....	.....
Weight (including crate).....	.....
Breed.....	.....
Horses.	
Number.....	.....
Male or female.....	.....
Age (in months, if under 24 months)....	.....
Breed.....	.....

The above stock is to be delivered to Mr....., P.O....., Railway Station.....

I hereby agree to pay for space for stock as above, unless my notice cancelling same is received by the Secretary of the Live Stock Associations before final notices regarding shipping are mailed by the Secretary of the said associations.

(Signed) \_\_\_\_\_

\*Over three sheep will be loaded without being crated.

### COMPARISON OF RATES.

In order that a comparison may be made between the rates at which stock can be delivered in less than car load lots to Winnipeg, Moose Jaw and Calgary, via the association car and singly, the following has been prepared:

	FROM TORONTO					
	To Winnipeg.		To Moose Jaw.		To Calgary.	
	Assoc. Car.	Singly.	Assoc. Car.	Singly.	Assoc. Car.	Singly.
Bull under 6 mos....	8 00	18 10	9 00	29 30	10 00	35 50
Bull over 6 mos. and up to 12 mos....	10 00	18 10	11 25	29 30	13 00	35 50
Bull over 12 mos. and up to 18 mos....	11 00	54 30	13 00	87 90	15 00	106 50
Bull over 18 mos. and up to 24 mos....	12 00	54 30	14 50	87 90	17 00	106 50
Bull over 24 mos....	15 00	72 40	17 50	117 20	20 00	141 20

In addition to the above charges when shipping singly, it is also necessary to send an attendant in charge of the stock.

There are corresponding differences in the rates on horses, sheep and pigs, shipped in the association car and singly.

\*Singly here means otherwise than as part of a car of purebred stock or settlers' effects.

### FREIGHT RATES ON PURE-BRED CATTLE, SHEEP AND SWINE BETWEEN LOCAL POINTS EAST OF FORT WILLIAM.

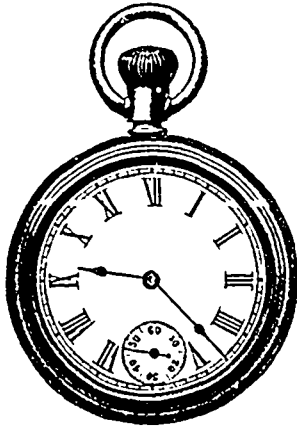
Registered cattle, sheep and swine may be shipped at one-half regular tariff rates between points on the Grand

Trunk railway system, and the lines of the Canadian Pacific Railway east of Fort William. Registration certificates must in all cases be produced for the inspection of the station agent at the shipping point. Pedigreed stock, as above, may be taken without men in charge provided owners sign the usual contract releasing the company from liability in consequence thereof. The above special rates will only apply when owners sign the usual valuation agreement for ordinary stock, and the following estimated weights will apply.

(To be continued.)

**GIVEN AWAY FREE**

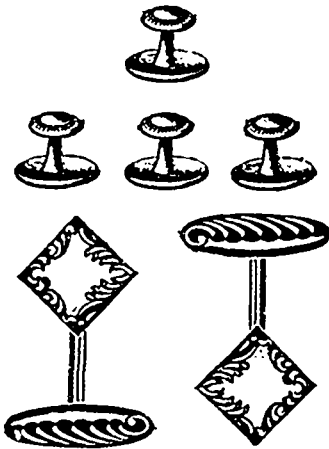
Silver and Nickel Watches, Chains, Air Rifles, Blouse Sets, Rings, Knives, Forks, Spoons, Lace Curtains, Magazines, etc., to any one who will assist us to sell our goods.



This fine watch given free to any one who will sell 24 packages of our celebrated Rose-Bud Tooth Powder, or the same number of packages of our Black Ink Powder.

The Tooth Powder is the finest that can be made, and should be used by everyone. From 3 to 6 packages can often be sold in one house.

Each package of Ink Powder makes one pint of the best black ink by simply dissolving in warm water. Full directions are printed on each package.



This handsome solid Sterling Silver 5-piece Blouse Set is given free for selling 10 packages of either Tooth Powder or Ink Powder.

A strong Jackknife is given for selling 10 packages of either. Hundreds are now selling for us. Why not you? Everyone is pleased with the premiums given. No money is required. Simply send your name and address, plainly written, mention this paper, and we will send the goods and our big premium list. When sold return us the money and the premium you have earned will be sent by return mail.

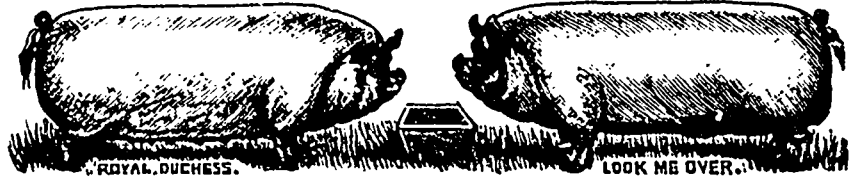
THE

**Toronto Drug Co.**  
Bay Street, Toronto.

**Wm. Butler & Son**

Dereham Centre, Ont.

Importers and exporters of Pure-bred Live Stock. Breeders of Guernsey cattle, Chester White and Duroc Jersey Swine. Stock delivered free in carload lots to any part of Canada. Write or circulars, calendars, etc.



**Summer Hill Herd of Yorkshire Hogs**—Large Lengthy English Type—Among them being the undefeated prize-winning boar "LOOK ME OVER"—2603—acknowledged to be as good as any it not the best of his kind on the continent of America to-day. Also "ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not akin. Also choice young sows bred to "Look Me Over." We ship to order, prepay express charges, guarantee stock as described.

D. C. FLATT, Millgrove, Ont.  
Telephone and Post Office

.. HIGHEST TYPE OF BACON HOGS. .

**Oak Lodge Herd of Large Yorkshires**



The Largest Herd of Pure-Bred Yorkshire in America.

This herd has won the best prizes offered for the breed during the last ten years. Only one breed kept, but the choicest of its kind. Three imported stock boars and several sows that have all been winners at the largest shows in England, also winners at prominent Canadian and United States shows. Pigs of all ages for sale.

J. E. BRETHOUR, Burford, Ont.

**NORTH BRUCE HERD.**

IMPROVED LARGE YORKSHIRES.

Boars fit for service, young sows in farrow, and young stock of Imported and Canadian bred boars for sale.



Write for prices.  
WM. HOWE, North Bruce, Ont.  
Port Elgin Station and Express Office

**BACON PIGS**

IN LARGE ENGLISH BERKSHIRES

They suit the Farmer and please the Packer.

Our Stock is { Of best Breeding.  
No. 1 in Quality.  
Reasonable in Price.

Send your orders for young pairs not akin, to Maplehurst Farm, J. J. FERGUSON, Smith's Falls, Ont. Box 373.

**The Vessot Sub-Soiler**  
Price, \$5.00



Made to fit any Plough

NOW IS THE TIME TO BUY

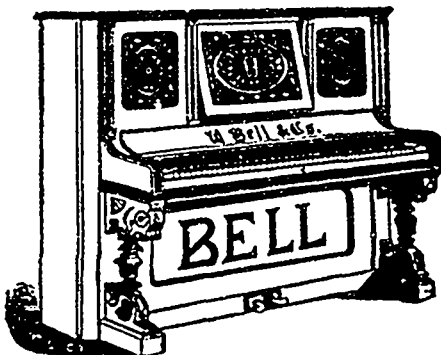
The one thing needful to ensure good crops.

Mr. J. H. Peters, Mossomin, Assa., says: "We like it fine. You can tell he row where it was used."

Circulars on application

**S. Vessot & Co.,**  
Joliette, Que.

**The Unparalleled Reputation of**



**The BELL PIANOS and ORGANS . . .**

Is accepted without dispute by all other makers . . .

ORGANS from \$40 upwards  
PIANOS from \$250 upwards

Only the best materials used. All others are rejected  
On Reasonable Terms from all Agents

Manufactories: GUELPH, Ont.

**THE BELL ORGAN & PIANO CO., LIMITED**

## FARMING

AN ILLUSTRATED WEEKLY JOURNAL DEVOTED TO  
FARMING AND THE FARMER'S INTERESTS.

Published every Tuesday by

THE BRYANT PRESS,

44-46 RICHMOND STREET WEST, TORONTO, CANADA.

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Representative for Great Britain and Ireland, W. W. CHAPMAN, Fitzalan House, Arundel St., Strand, LONDON, ENG.

## MARKET REVIEW AND FORECAST.

Office of FARMING,

44 and 46 Richmond street west,

Toronto, April 3rd, 1899.

There was a better tone all round in wholesale circles last week than the week previous. The recent heavy snows and rains have impeded trade somewhat at country points. The future seems to be full of promise. There is a firm feeling in the money market, and bankers are demanding more for loans.

## Wheat.

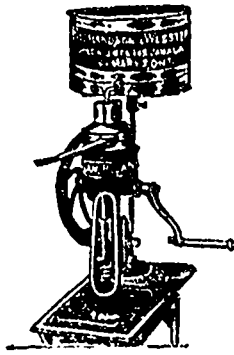
The wheat situation has reached a period when fluctuation in the price is common. This is largely due to the varying reports regarding the coming crop. These conditions produce a dull market one week and a strong and advancing one the next. Two weeks ago May wheat sold as high as 72½c., which was an advance of 5¼c. from the lowest price within the week previous. The recent advance in Great Britain was no doubt due to the stormy weather which prevailed, which, it was thought, would seriously injure the crop. The opinion seems to be gaining ground that there has been a serious damage to the crop, but it is early yet to speak definitely. The Cincinnati *Price-Current* of last week says: "Conditions more trying on wheat, but situation cannot be reliably judged until growing weather. Some lowering of vitality seems reasonable. Recent snows beneficial."

Some operators appear to be sanguine that we shall see higher prices, but this is mere speculation. The English market has been somewhat unsettled during the week, and prices have been both up and down for both future and spot stuff. Red winter wheat has sold during the week two cents higher than a week ago at Ontario points. The market here is steady at from 67 to 68½c. north and west, with holders asking 70c. Goose is quoted at 65c. to 66c. north and west; No. 1 Manitoba hard 80c. at Toronto, and No. 1 Northern at 77c. On the local farmers' market red and white bring 70 to 71c.; spring life 69½, and goose 65½ to 66c. per bushel.

## Oats and Barley

The British oat market continues firm, with a further advance of 6d. per quarter reported. The stock of oats in store in Montreal just now, 1,044,649 bushels, as compared with 450,856 a year ago at this time. The Montreal market, however, is firmer, and prices have advanced fully 1c. over those of last week. Oats are steady here at 29 to 30c. west. On the local market they bring from 34 to 34½c. per bushel.

The Montreal barley market is steady at 52 to 54c. for malting grades. Prices here are nominal at 45 to 46c. for No. 1 west.



That is why the

## American Cream Separator

Is considered such a great machine.

No simpler machine can exist and the result of the work is wonderful. Gasoline Engines for all purposes. Write us for full particulars and Catalogues.

**Richardson & Webster,**

ST. MARYS, ONTARIO

The quotation on the local market is 44c. per bushel.

## Peas and Corn.

The English market for peas is dull and easy, prices having dropped 3d. to 6d. per quarter. The Montreal market is quiet at 73 to 74c. in store, and 72c. afloat. The market here is also quiet at 65 to 66c. west; 60 to 62c. per bushel is the price on the local farmers' market.

At Montreal corn is reported firm and advancing. No. 2 American mixed in car lots is quoted at 44 to 45c. in store. American is quoted here at 41 to 42c. on track.

## Bran and Shorts.

The Montreal market is very firm with supplies scarce. Ontario bran is quoted there \$16 to \$17 in bulk, and shorts at \$17 to \$18. Western millers are reported to be getting \$15 and as the demand just now is urgent many mills are cleaned out. City mills here are reported to be selling bran at \$14.50 and shorts at \$15 50 in car lots f.o.b. Toronto.

## Clover and Timothy Seeds.

The seed market at Montreal is quiet and quotations are: Ontario timothy, \$1.60 to \$1.75, and American \$1.25 to \$1.50; red clover, \$3.75 to \$4.40; alsike, \$3.50 to \$4.50; and mammoth clover, \$4.25 to \$4.75 and flax seed, \$1.20 to \$1.25 per bushel. On the farmers' market here red clover seed brings \$3 to \$3.50; white clover, \$5 to \$8; alsike, \$3 to \$4.10; and timothy, \$1.25 to \$1.35 per bushel.

## Eggs and Poultry.

The late low prices have stimulated consumption in England, where there is a better demand. The receipt of eggs at Montreal has been scarcely equal to the demand and prices have advanced 1½ to 2c. to 14½c., some holders asking 15c. for new laid. The egg market here is firm on account of the Eastern demand and quotations are 14 to 15c. wholesale. On the Toronto farmers' market they bring from 15 to 16c.

The Montreal market for dressed poultry is quiet and prices are more or less nominal. There is a good demand here, but the supply is small. Wholesale prices are, chickens, 40 to 70c. and ducks, 50 to 75c. per pair; geese, 6 to 7c. and turkeys, 12 to 13c. per lb. Prices are a little higher on the local market.

## Potatoes.

The Montreal market is firmer, and 5c. to 10c. per bag higher, owing to scarcity of supplies caused by large purchases by American and Ontario buyers. In car lots potatoes bring from 65c. to 70c. Western men who shipped to Montreal last year are there wanting to buy. The market here is steady at 75c. to 80c. for cars on the track. Potatoes out of store sell at 90c. These figures rule on the farmers' market.

## Fruit.

The unusually heavy winter weather for this season of the year has been detrimental

to the general fruit trade. The Montreal apple market is firm at \$3 to \$4.50 per barrel. On the local market here they bring from \$2.50 to \$4 per barrel.

## Hay and Straw.

The baled hay market at Montreal is steady, and quotations are: Choice No. 2 \$5.50 to \$6; No. 2 \$4.50 to \$5, and clover \$3.50 to \$4.50. Sales are reported at Quebec points at \$3.30 to \$4 for clover. Cars on the track are quoted here at \$7 to \$7.50, and baled straw at \$4.50 to \$5. On the farmers' market timothy brings from \$8 to \$10; clover \$6 to \$8; straw sheaf \$6 to \$6.50, and straw loose \$4 to \$5 per ton.

## Cheese.

The *Trade Bulletin's* special cable read thus: London, March 30th, 1899.—The market has assumed a much firmer tone, and prices have moved up another shilling since my last report, with business at 53s. 6d. to 54s. 6d. for finest Canadian, and at the advance there is a more active demand.

Liverpool, March 30th, 1899.—The market is strong with a good demand at the advance, with sales of finest Canadian at 53s. to 54s.

The wind up of the season is developing great strength, and quotations for fine goods at Montreal are 11 to 11½c. Owing to the Easter holidays things are a little quieter in England, but it is expected that prices will advance when they are over. The decrease in the exports from Montreal and New York from May 1st, 1898 to date is 538,731 boxes as compared with the same period a year ago.

## Butter.

Stocks are not large on the London, England, market, but as the season advances there is a downward tendency in prices, and there has been a decline of 2s. to 3s. per cwt. The Montreal market remains very firm for choice fresh creamery, which is not in sufficient supply to meet local requirements, and consequently consumers have to be satisfied with secondary qualities. Owing to the continued cold weather new dairy butter is coming in slowly, which sells at from 18½ to 20½c. as to quality. Quotations for creamery are: Choice, 20½ to 21c.; good to fine, 19½ to 20c., and fair 18½ to 19c. Western dairy brings from 13½ to 15c. The total shipments of butter from Montreal from May 1st, 1898, to date, show an increase of 100,000 packages as compared with a year ago, making the net increase from Canada and the United States 48,070 packages. Creamery is steady on this market at 21 to 22c. for prints and 20 to 21c. for boxes. There is good demand for dairy butter at 13 to 15c. for tubs and 16 to 17c. for prints. On the local market lb. prints bring 18 to 20c., and large rolls 15 to 17c. per lb.

## Cattle.

Early in the week there was an advance in cattle in Great Britain which has been maintained all week. On this side the cattle situation has been steady. Trade on Toronto market has been fair all week with the run of live stock light at the end of the week

owing to the holiday, the best cattle, both butchers' and exports, being firm. The quality of the fat cattle has been fairly good of late.

**Export Cattle.**—Choice loads of heavy exporters bring from \$4.85 to \$5, and light exporters from \$4.70 to \$4.85 per cwt. A few choice picked lots brought 15 to 25c. per cwt. more than these prices on Friday. **Export bulls bring from \$3.85 to \$4.25 per cwt.**

**Butchers' Cattle.**—Choice picked lots of these equal in quality to the best exporter but not so heavy, bring from \$4.40 to \$4.65 per cwt. Good butchers' cattle bring from \$4.35 to \$4.50 and medium from \$4 to \$4.25.

**Stockers and Feeders.**—The deliveries of Buffalo stockers have been light, with prices firm at \$3.50 to \$3.80 for general run and as high as \$4 per cwt. for choice bred steers. Stock heifers bring about \$3 and stock bulls \$2.50 per cwt. Feeding bulls are worth from \$3 to \$3.25 per cwt. and heavy feeders weighing from 1,000 to 1,150 lbs. each are scarce and worth from \$4.15 to \$4.30 per cwt.

**Calves.** These are worth from \$2 to \$10 each, with the bulk bringing from \$5 to \$7 each.

**Milch Cows and Springers.**—The bulk of these brought from \$35 to \$44 each on Friday.

**Sheep and Lambs.**

There was an active demand on Friday at Buffalo. There was a small run of these on this market on Friday. Ewes sold at \$3 to \$3.50 and bucks \$2.75 to \$3 per cwt. Yearling lambs are not very plentiful and bring from \$4.75 to \$5 per cwt., with a few choice picked lots of ewes and wethers fetching 10c. per cwt. more. A few spring lambs sold at \$3 to \$6 each.

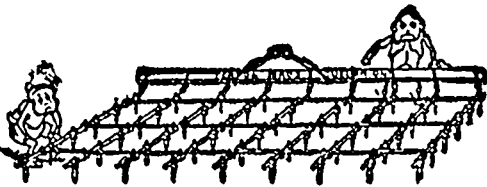
**Hogs.**

Choice select bacon hogs are 12½c. per cwt. lower, and sold at \$4.37½c. on Friday. This figure disappointed many drovers who bought with the expectation of getting \$4.50. Light hogs bring \$4 and thick fats \$3.75 per cwt. Though offerings have been large at Montreal, packers have been taking hold more freely, sale being reported at \$4.60 to \$4.80 for choice lots early in the week. But since then prices have receded to \$4.50 to \$4.60. The *Trade Bulletin's* London cable of March 30th, re Canadian bacon, says: "Owing to heavy receipts from Denmark the market has taken a decided downward turn since my last cable, prices having declined fully 4s. per cwt."

The cost of feeding a young broiler on the farm to the weight of two and one-half pounds ought not to be over 25 cents each. The grower who knows how to get a good hatch and does not lose too many chickens ought to make a good profit.

# Why ? Because

In these times of keen competition is there such a great demand for this All Steel Flexible Harrow.



The flexibility of the Harrow enables it to adapt itself as readily to rough and uneven ground as to smooth, and the oscillating motion produced by its flexibility pulverizes the ground, and leaves it in a loose and more porous condition than any other Harrow, and it is made of the very best material money can buy for the purpose. The bars are made of

**HARD SPRING STEEL**

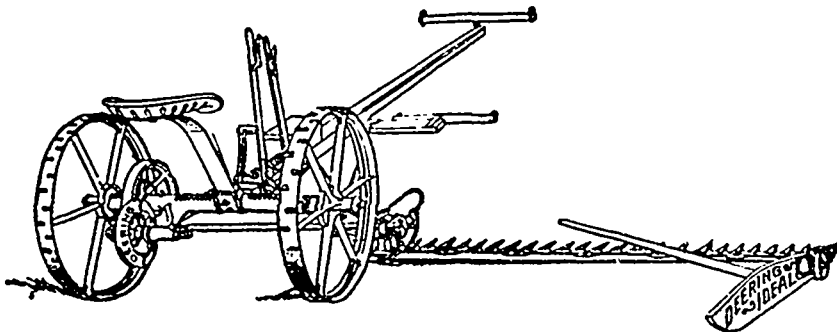
very stiff and strong, the hinges and teeth being of solid steel, all of which are of a higher grade than is possible to use in any other make of Harrows. We can guarantee more than double the strength and wear in this Harrow than there is in any other make.

Parties wishing a first-class Harrow will do well to write us direct, or apply to the local agent.

Our Motto, "Not how Cheap, but how Good."

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### The Machines that Made America Famous



DEERING IDEAL MOWER.

Beware of Mowers claimed by some of our competitors to be like the Deering, or as good as the Deering. Buy none but the **DEERING IDEAL MOWER**, and that made by the

**DEERING HARVESTER CO.**

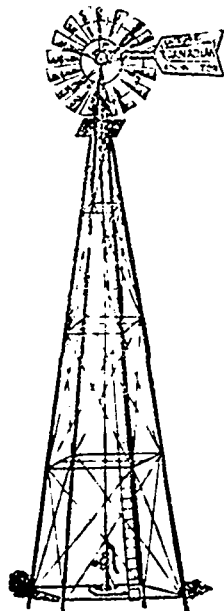
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No machine on a FARM Yields better results than a

### Canadian Steel Air-Motor

**Will** Grind, Chop, Pulp, Run Grindstones, Fill Silos, etc.

And give your House and Barns A Full Supply of Water

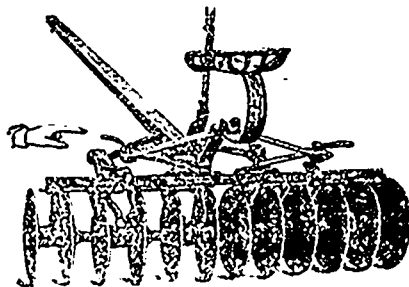
### PUMPS, TANKS, GRINDERS

Have you seen our WATER BASINS?

**Ont. Wind Engine & Pump Co. Limited**  
ATLANTIC AVE., TORONTO  
(Largest Manufacturers under British Flag)

## Farmers

We are surprised to read the claims of some of the makers of Disc Harrows. One would think it was the **WATFORD DISC** they had reference to.



The up-to-date disc of to-day is a throw-out harrow. Still the Watford will throw either in or out. The leading improvement in disc harrows to-day is the spring pressure and its application to hard or soft ground, to cut a uniform depth, and to avoid weight on horses' necks. This pressure must be applied directly over and in line with the centre of discs, just where

you will find it in the Watford, and where we have had it for years. Comfort for rider. Buggy Spring construction. (See Cut.)

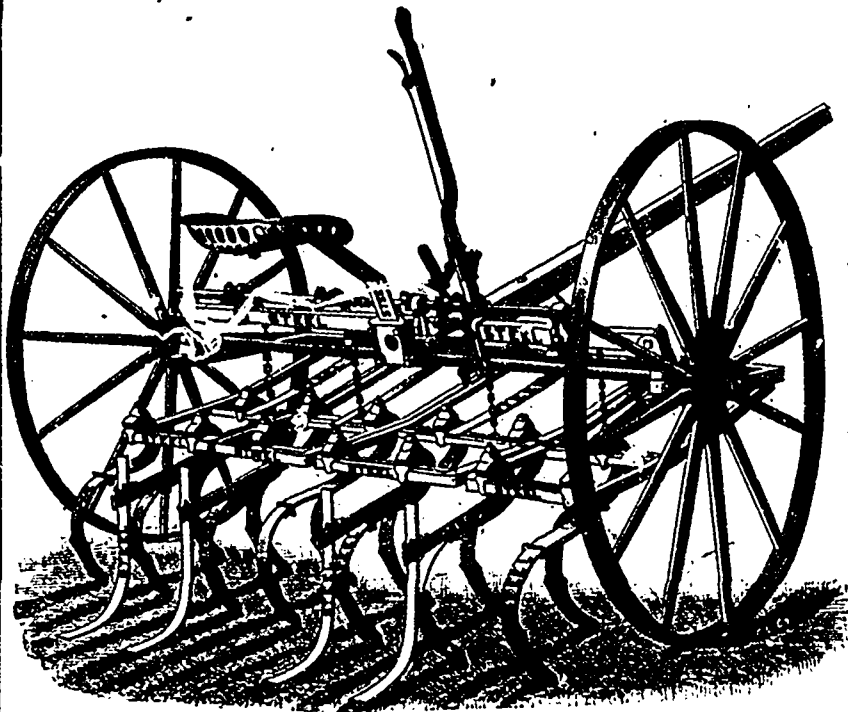
**Special Offer**—Where Watford Implements are not sufficiently known we will name an interesting price, it being understood that special cut is to have no bearing on regular selling price—a special price for a special purpose.

Yours for up-to-date implements on the farm,

## Thom's Implement Works, Watford, Ont.

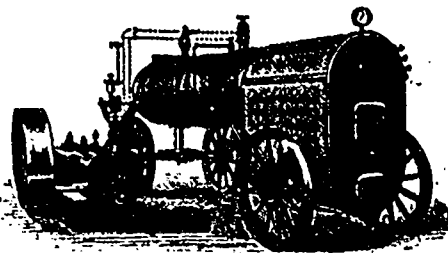
# The MASSEY-HARRIS CULTIVATOR

Does its work thoroughly in all kinds of soil.  
THE TEETH ARE VERY STRONG



AND ARE SUPPORTED BY A PATENTED HELPER

**MASSEY-HARRIS CO.,**  
LIMITED  
**TORONTO**



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**ENGINE AND BOILER  
MANUFACTURERS**

LONDON, CANADA,

Build Engines for every purpose, from 3 h.p. and upwards, with either stationary or portable Boilers to suit.

If you require power for a

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Grist or Saw Mill, etc.,

write us, stating what power is required, and for what purpose, and ask us for Catalogue 35 B.

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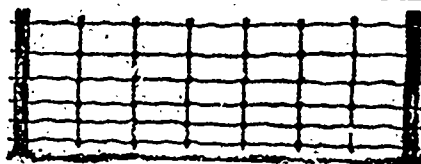


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Catalogue Free

The W. A. FREEMAN CO., Limited  
Hamilton, Ont.

## THE RANKIN FENCE



is a coiled Spring wire Fence containing all the latest improvements, is easily and rapidly erected without any expensive tools or previous experience. All particulars in Our Catalogue.—Write for one.

**AGENTS WANTED.**  
**THE RANKIN FENCE CO.**  
275 ST. MARTIN ST., MONTREAL.

All crops can be increased in quantity and improved in quality for some years, by the early application of

**Albert's  
Thomas-Phosphate Powder**  
(Registered)

Hundreds of thousands of British and European farmers use it annually.

**WALLACE & FRASER**  
58 Canada Life Building, TORONTO.

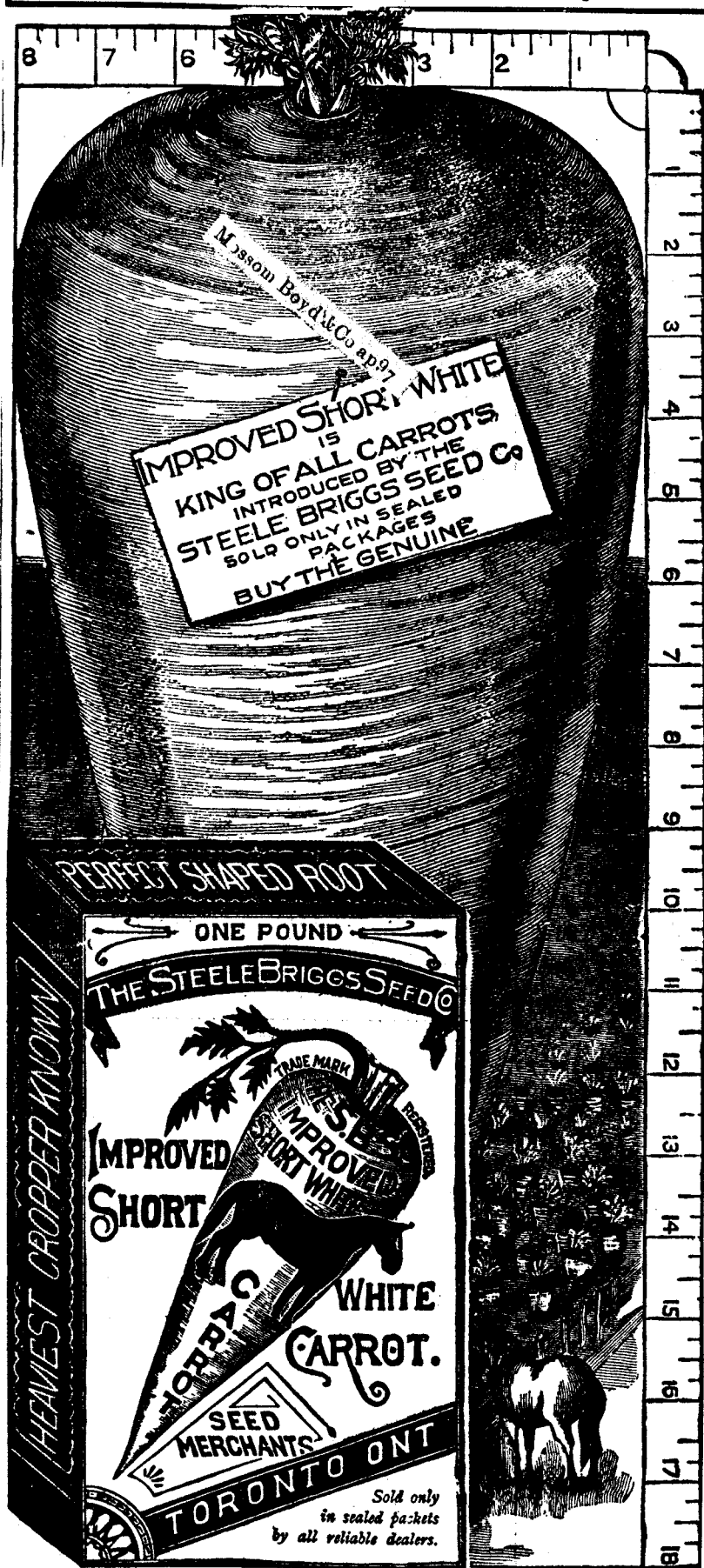


**FREE** We give this fine WATCH with chain and charm, for selling two doz. Whitelight Wicks at ten cents each. *No Money Required.* Write, and we will send the Wicks, postpaid, and our big Premium List. When you have sold the Wicks, return the money, and we will at once send your watch free of all charge. Hundreds have earned fine watches working for us, why not you? In writing, mention this paper.

**WHITELIGHT WICK CO.,**  
TORONTO, CAN.



# "CANADA'S GREATEST SEED HOUSE"



## The Steele, Briggs Seed Co.'s

Enormous annual trade in Farm and Garden Seeds has been attained by 26 years of constant vigilance and care, and in supplying merchants and growers with the very highest standard of quality that can be procured, and at most favorable prices consistent with "Good Seeds," which is the first essential for a good crop.

Among our many introductions of merit

### The Steele, Briggs' Improved Short White CARROT

Is the...  
**World's Champion**

Because it is the Surest Cropper  
The Heaviest Yields  
Easiest Harvested  
The Handsomest Shaped Roots  
And the Very Best Field Carrot  
in existence

It may be properly called "Little Giant." Seldom exceeds sixteen inches in length, and has been grown to measure twenty-seven inches in circumference; stands nearly one-fourth out of ground, with a strong, handsome top, broad and heavy at the shoulder, tapering evenly to a point, as perfect as if turned in a lathe. The color is pale green above ground, and a light creamy white under ground; flesh rich white, solid, sweet and very nutritious. Under good cultivation has yielded one thousand bushels per acre.

.. As an  
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it is the Peer

Price (post-paid) per lb., 45c.;  $\frac{1}{2}$  lb., 25c.;  
 $\frac{1}{4}$  lb., 15c.; oz., 10c.

PLEASE NOTE.—As a safe-guard to growers, we supply the genuine "Improved Short White" Carrot in sealed packages only, printed in colors and bearing our name and trade mark as shown in the illustration. If your resident merchant cannot supply you, write to us for it. Refuse imitations of our packages and varieties said to be "just as good."

### NEW... Danish White Oats

A remarkably heavy-yielding variety, produces strong, stiff straw, large, plump, heavy, bright grain with thin hull, and adapted to a great diversity of soils; withstands stormy weather without lodging or shelling.

Price by mail (post-paid) per lb., 15c.; 4 lbs. for 50c., or by freight or express (purchaser paying carriage) peck 25c.; bush, 80c.; 10 bush. lots or over, 75c. per bush. Cotton bags, holding 2 $\frac{1}{2}$  bush., at 15c. each.

Write for our Catalogue, contains descriptions and prices of the newest and best Field and Garden Seeds. Please mention this paper.

"Canada's Greatest Seed House"  
The **STEELE, BRIGGS SEED CO.,**  
TORONTO, ONT. Limited

## Do You Want a Good Garden? You Can Have a Good Garden

The first requisite is to plant "good seeds." Nor can you expect satisfaction from planting cheap, bargain seed. The difference in cost between "good seed" and the so-called cheap seed is but a small item when compared with the loss through failure of crop.

By using "Steele, Briggs' Famous Seeds" They are used by successful growers throughout the Dominion. The highest standard of quality supplied. They are sold by leading merchants and may be ordered direct. It pays to plant the best seeds.