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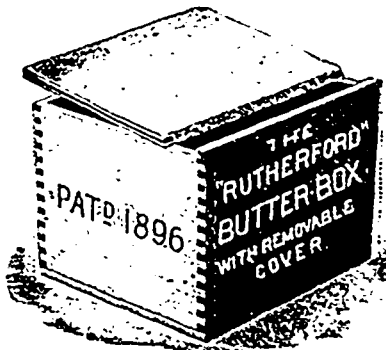
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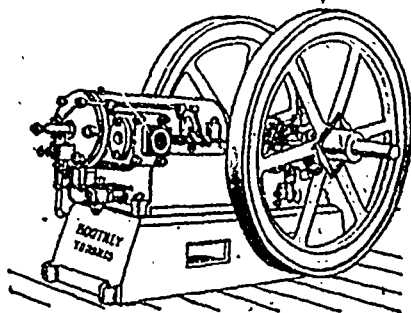
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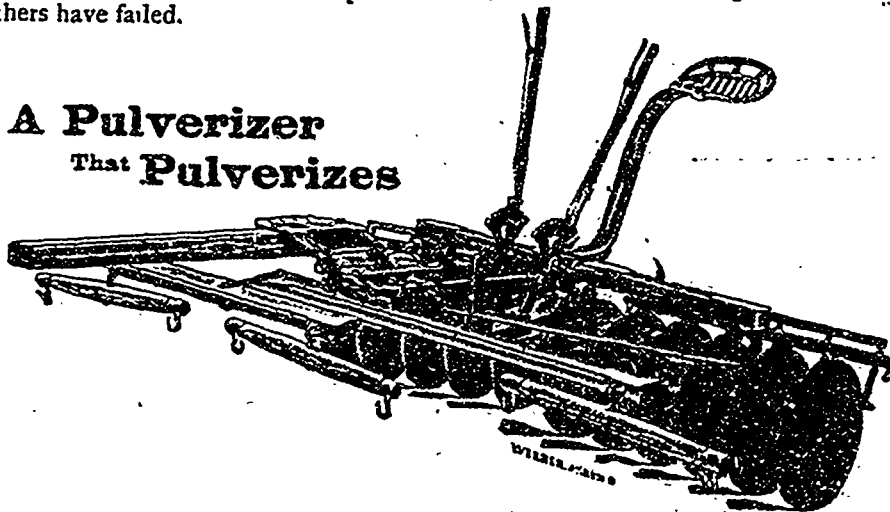
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FARMING

VOL. XVI.

FEBRUARY 14th, 1899.

No. 24

Agricultural News and Comments

A course of instruction in poultry culture at the Rhode Island College of Agriculture began on Jan. 9th last and will continue for four weeks. The number of applications is about double what can be accommodated.

Careful weighing shows that an ordinary bee, not loaded, weighs the 5 1000 part of a pound, so that it takes 5,000 bees to make a pound. But the loaded bee, when it comes in fresh from the fields and flowers, freighted with honey or beebread, often weighs nearly three times more.

The Umbrian cattle are snow-white, and form a lovely bit of landscape; but cows, as well as oxen, are yoked to the plow, and are never sent to pasture. In fact, there is no pasture land for them, and at sunset peasants are to be seen up in trees stripping off their leaves and filling sacks with them for their stable-fed cattle.

In the test every apple with a worm hole or in the least bit scabby was rejected. The beneficial effect on foliage was most marked, and incidentally good work was accomplished against tent caterpillars and other injurious insects. The formula used was 4 pounds lime, 4 pounds copper sulphate, 40 gallons water, and 4 ounces paris green.

The following is considered a very good formula for curing hams and shoulders: To every 100 lbs. of hams take best coarse salt, 8 lbs.; saltpetre, 2 ozs.; brown sugar, 2 lbs.; water, 4 gals. Mix the above, and pour over the hams after they have lain in the barrel two days. Let the hams remain in the brine six weeks, and then drain several days before smoking.

In Russia the wages of a horse are higher than those of a man. In the Volga district the average pay of a man and horse is about 72 cents per day; of the man alone 34 cents, leaving 38 cents for the horse alone. The women receive from 10c. to 20c. per day. In the central agricultural district the average is: Horse, 23 cents; man, 20 cents; woman, 13 cents. In the southern steppe. Horse, 36 cents; man, 25 cents; woman, 16 cents.

The complaint comes from London, England, that samples of No. 1 hard Manitoba offered for sale there are not up to the standard, and it is suggested that there may have been some mixing at the elevators before shipping. If there is any ground for this complaint it is unnecessary to point out the danger there is in this to the Canadian producer. The question should be investigated in the interest of the Canadian farmer.

Prof. Thos. Shaw, of the University of Minnesota, enumerates the following as among the causes of weakened stamina in purebred stock: Lack of exercise, forcing foods, in-and out breeding and breeding too early. In selecting from registered families, inquiries as to individuality are as important as any other that can be made. Unless the boar individually is what he should be his prepotency, resultant from purity of breeding, may be an actual disadvantage, for it makes him effective in the transmission of weaknesses which farmers want to keep out of their herds.

A farm credit system has been inaugurated in France by which any farmer may borrow money on the security of the produce of his own holding by a warrant or bond payable to bearer, notwithstanding that the said prod-

uce remains in his own barn or storehouse. This does not prevent the producer from selling his produce when he pleases provided he sells for cash on delivery and that he uses such cash to redeem his warrant and retains only any surplus after it is paid. This is a "boom" to small land holders who are plentiful in France.

The beneficial effects of spraying are clearly shown in the report of Wm. Orr, Superintendent of Experiments for 1898. On one orchard the results in perfect fruit were as follows:

	Sprayed clean.	Unsprayed.
Snow apples.....	64 per cent.	1 per cent.
Ben Davis.....	100 per cent.	28 per cent.
Wagner.....	96 per cent.	9 per cent.
Greening.....	88 per cent.	24 per cent.
Spy.....	100 per cent.	36 per cent.

Ergot is a fungus growth, and may often be found on cereals and grasses. If an ergotized plant is examined it will be noticed that some of the seeds are replaced by a small, blackish, and bone-like growth, usually longer and considerably stouter than the normal seeds. These growths are the resting spores or winter seeds, as it were, of the fungus; and they will germinate in spring under favorable conditions exactly as other fungus spores do. The consumption of these growths causes mortification and premature birth. If the ergot is ground up and cooked with the food the effect is not so serious.

Mr. T. J. Dillon, Charlottetown, P.E.I., formerly Dairy Superintendent for the Island, has been on a visit to Ontario during the past few weeks attending the dairymen's meetings. He reports dairying as progressing on the Island. Some 7,000 more boxes of cheese were made in 1898 than in 1897, besides a large quantity of butter. Early in January Mr. Dillon addressed the Vermont Dairymen's Convention at St. Johnsbury on "Cheese-making." A Vermont exchange speaks of his address as follows: "It was conceded to be the best paper on the subject ever given before the association." That such a statement should be made is not at all surprising to those who know Mr. Dillon's work as a dairyman. He is one of the best all-round cheese and butter-makers in Canada.

Canada's Live Stock Interests

Canada's live stock interests are of prime importance. This fact was never more clearly demonstrated than at the various breeders' meetings held in Toronto last week. At no other time, perhaps, in the history of the organizations represented have there been such satisfactory reports of the year's work presented. Every association reported progress, and none more notably than the Dominion Short-horn Breeders' Association, which reported an increase of over 1,200 registrations during the year over the number in 1897. The increase in membership and registrations of pure-bred stock in the other associations is also noteworthy, indicating that Canada's important live stock interests have undoubtedly entered upon a new era of prosperity and development.

One of the important features of the year's work has been that of amalgamation and the bringing of the live stock interests of the various parts of the Dominion under central control. A couple of weeks ago we published in

detail the proceedings connected with the amalgamation of the various Ayrshire associations. During the year the Shorthorn Association has secured control of the P. E. 1. Herd Book, so that there is now only one Shorthorn record for the Dominion. The beneficial effect of this work will be more noticeable, perhaps, a couple of years hence, when the stability which one uniform record for the Dominion will give the industry will be more fully recognized. At the Holstein-Friesian meeting an amalgamation of a wider nature was suggested, that of having one record for Canada and the United States. While it is of the greatest advantage to the various pure breeds that there should be only one record in the Dominion, it is a debatable point whether it would be an advantage to extend the amalgamation beyond the border.

At the Dominion Shorthorn and Dominion Cattle Breeders' meetings strong resolutions were passed, urging upon the Dominion Government to allow all pure-bred cattle to come into Canada from Great Britain without a test for tuberculosis being applied. Our trade in pure-bred cattle, particularly of the beef breeds, after a few years' depression, has revived, and was never, perhaps, more promising than at the present time. The one thing, above all others, which seems to be hampering it at the present time, and which makes breeders and importers doubtful as to the future, is the application of the tuberculin test to stock brought into the country from Great Britain. This matter is more serious than those not directly interested are aware of. It was the almost unanimous opinion of the stockmen who visited Toronto last week that unless the Government does something, and that right away, to remove the too stringent regulations regarding the testing of imported cattle for tuberculosis the beef cattle trade of this country cannot be developed as it ought to be. So much doubt has been cast of late on the efficacy and reliability of the test to locate tuberculosis that the demand of the stockmen to allow pure-bred cattle to come into this country without being tested could be granted without endangering the public health in any way. Only last week an important committee of live stockmen at Buffalo made a similar protest to Washington against Senator Wills' bill for a tuberculin test of all cattle imported into the United States, for the reason that it would seriously hamper the cattle industry of that country.

No more important work has been done during the year than that accomplished by the Dominion Cattle, Sheep and Swine Breeders' Associations, chiefly through their efficient secretary, Mr. F. W. Hodson, in developing interprovincial trade and securing reduced rates on the railways for carrying pure-bred stock to and from the various provinces of the Dominion. The special privileges secured cannot help but stimulate interprovincial trade. The distances in Canada are so great that, unless something of this nature is done, this important trade cannot develop, as there is every prospect of it now doing. To give an idea of the privileges secured it is only necessary to state that, while formerly it would cost \$18.10 to send a bull, under six months old, from Toronto to Winnipeg, under the new arrangements such an animal can be carried the same distance for \$8. Half rates have been secured for all pure-bred stock going over the railways east of Fort William, besides special rates to Newfoundland. No greater work has ever been done for the breeders of this country than this. The regulations governing these special rates have been worked out in detail, and will be published shortly for the benefit of breeders.

Another important work has been the publication of the monthly lists of stock for sale. These lists have been sent to prospective buyers in the outlying districts of the provinces of the Dominion as well as in the United States and other countries. They have greatly encouraged provincial trade and made it possible for purebred stock to be shipped by the associations in car lots so as to secure the very best railway rates obtainable. A very important line of work has been planned by the Swine Breeders' Association with a view to ascertaining by experiment and observation the best way to feed hogs to produce the best

quality of bacon. There is much to be learned on this line, and this experimental work will be both timely and valuable.

There are other features of the work that has been carried on by our live stock associations and planned at the recent meetings which it would be profitable to discuss; but we have noted a sufficient number to show that these organizations are faithfully and energetically looking after the interests under their control. We predict for these interests a more prosperous year during the one upon which they have just entered than any previous one, and their prosperity means the advancement of Canadian agriculture along nearly every line. Full reports of the various meetings will be found elsewhere.



Inspection and Regulation of Stallions

This question has been given some attention in these columns of late, and it is one worthy of careful consideration by Canadian horse breeders. There is no doubt that the unsatisfactory condition of the horse trade during the past few years is in a large measure due to the "too promiscuous" use of cheap or inferior stallions. And to-day, though the trade in horses is looking up, it must be remembered that the improved demand which now exists is not for the "scrub" horse but for the finest types of heavy draught and coach horses, and every breeder knows that to produce these only the very finest types of stallions should be used.

At a special meeting of the Canadian Horse Breeders' Association, held in Toronto last December, a report of which appeared in FARMING for Jan. 10th, a letter was read from Mr. Wm. Hendrie, Jr., urging that some practical steps be taken towards securing the inspection and regulation of stallions standing for service in the country. As far back as 1895 Mr. Hendrie brought this matter before the Dominion Minister of Agriculture in a series of letters, setting forth the position of the horse-breeding interests of the country, and advocating a plan for Government inspection of stallions, as the following extract from the correspondent, which he has kindly sent us for publication will show, and which, we trust, will bring out some discussion on the subject:

Hamilton, Oct. 3rd, 1895.

To the Honorable The Minister of Agriculture,

Ottawa:

SIR,—There is no doubt horse breeding has gone back considerably, and the worst results will not be reached until 1897 or 1898, when the heavy draught, well-bred saddle and harness horse will be more difficult to find than even now.

Three things are responsible for this decline:

1. (a) Financial difficulties in the United States, a good market in the past for our high-class horses.

(b) Farmers and breeders, at the introduction of electric power, got alarmed at low prices and stopped breeding altogether.

(c) "The cheap stallion." This is a subject I have taken great interest in, wrote upon frequently in the different country papers, and in my travels impressed upon the farmers the foolishness of breeding to him.

The results of his too promiscuous use are only too evident. The country is full of scrubs, kept at a loss, and every day becoming more unmarketable.

As to a remedy, it is a difficult problem, but I am satisfied something can be done to place horse breeding upon a better basis.

The suggestions mentioned to you I do not think would be of much practical good if worked out.

If the Government imported stallions they would still be in the same fix as private owners are now, viz., competing along every side-line and concession with the cheap, underbred stallion, whose service in many cases can be got for \$2 or \$3.

The cost of providing suitable men to fill the position of lecturers would cost more than the benefit derived.

I would suggest that the Government empower your department to organize a Royal Commission on Horse Breeding in Canada, to be composed of men who have a practical knowledge of heavy breeds, thoroughbreds and harness horses. No doubt such a body could devise some scheme to recommend to your Government.

My opinion is that every stallion standing for public service should be inspected yearly by Government or commission—a certificate granted to owner, if sound, upon the payment of a nominal sum, this money to be given back to the country shows as prizes for young stock sired by inspected stallions.

Another matter of importance the Government should be particular about when granting money to fairs or shows is that the prize lists in-

sued by them call for the proper standard breeds. Many fairs to-day do much harm by catering to the common bred classes.

The Queen's Plates formerly given in Great Britain and Ireland by H.M. the Queen for the encouragement of racing are now administered by *The Royal Horse Commission*, in prizes for thoroughbred stallions, the successful ones being at the disposal of the Government, to be sent, if required, into any county and there stand at a nominal stud fee of usually £2.

This subject could be drawn out to weary you, so I will not go into any more details, but add my wishes that success crown your efforts.

I am, dear sir,

Yours respectfully,

(Signed) WM. HENDRIE, Jr.



The Rearing and Management of Poultry on the Farm

By J. E. Meyer, Kossuth, Ont.

(Continued from last issue.)

As soon as the chickens are at least twenty-four hours old remove them with the hen to a coop placed in a shady place, where there is grass and where no other fowls can get to it. I run wire netting about the coops, which keeps all large fowls out while it gives the chickens liberty. A hen can take care of fifteen chickens in early spring and twenty in warmer weather. Feed the chickens on a clean board out of the hen's reach, and keep clean water where both the hen and chickens can get it but so arranged that the chickens cannot get into it.

I feed stale bread soaked in sweet milk and pressed dry, granulated oatmeal and a cake made somewhat as follows: Half-crushed oats, equal quantities of ground wheat and barley, a little salt and flax seed meal, some baking soda, all mixed together and moistened with milk placed in a shallow pan, and bake in a moderate oven. You will find the chickens very fond of this. As soon as they can eat wheat keep it before them all the time. After the chickens are three weeks old you will not need to bake this food, but moisten it only. Never feed sloppy food either to chickens or older fowls at any time.

As the chickens are taken from the hens at from four to six weeks of age, place them in separate flocks of from twenty-five to thirty of the same age and size. If the coop in which you had the hen is made large enough and is perfectly tight all round, excepting the front, so that there will be no draughts on the chickens while in it at night, this will be the best place for them and they can remain there until quite late in the fall if you put a front to the coop. Be extremely careful that the chickens do not get into any draughts during the chilly nights of August and September. As sure as they do they will get distemper or cold, and once that gets into your flock you will be a long time before you will get rid of it. They immediately lose flesh when they have distemper and your nice plump pullets almost ready to lay will, in a very short time, be little but skin, bone and feathers. As the cockerels become large enough you market them, so that there will always be room in your coop for each flock. Keep clean fresh water and wheat before them all the time and feed mornings on soft feed. Never allow them to get anything sour.

I have here discussed raising chickens in what is now termed the old way, which is fast being superseded by machinery, where chickens are raised in large numbers. The artificial hatching of poultry was practised centuries ago in Egypt and China, and in China to-day there are not a few who make their living by hatching chickens for the poultry-raisers of the surrounding district. The methods they use, however, are very crude compared to those used in America, England, France and a few other countries, especially in the United States are incubators and brooders used to a very great extent. The demand for really first-class dressed poultry and eggs has always exceeded the supply, and no sooner had the incubator and brooder been brought to a comparative state of perfection than a new impetus was given to poultry raising, until to-day it is no

uncommon thing, in the Eastern States especially, to hear of poultry establishments running from six to thirty incubators of from 300 to 600 eggs' capacity each, and turning out annually hundreds of thousands of chickens and ducklings for the markets of such cities as New York and Boston. These men make this a business.

There are many advantages in favor of machines over hens for raising and hatching chickens, and they will answer as well for the farmer as for the exclusive poultry raiser. The good incubator and brooder of to-day is as simple, as easily managed, and will do its work as perfectly as the ordinary machines of the farm. The earlier you can hatch your chickens the better they will pay you. You can seldom get hens to hatch all the chickens that you would like to raise in March or April, but the incubator is ready to go to work at all times and will hatch 200 or 300 at once, with far less trouble than the dozen or two hens that it would take. If you have an incubator to do this work your hens can go on laying and lose no time. Incubator-hatched chicks are not troubled with lice. A brooder will take care of from fifty to two hundred with far less trouble to you than the hens would be. Any farmer who wishes to raise from 200 to 500 chicks each year will find it an advantage to do it with machines. The farmer who wishes to raise only from 50 to 100 does not need machines.

A farmer who has quite a large farm adjoining the village of Preston has been for a number of years paying careful attention to a large flock of Leghorn hens that he keeps for furnishing eggs for market. He also keeps quite a large herd of cows which are not neglected. This farmer told me only a few weeks ago that his hens were paying him better than his cows. There is not a farmer who cannot make his hens pay just as well as this flock, if he will only make up his mind to do it. The time has come when you are each and every one of you compelled to look to every available source for your incomes. I know a hen is a small thing—perhaps beneath the attention of some men, but she is either a profit or a loss to you. Which are you going to make it? It depends entirely upon yourself.



Selection in Fowls

Written for "Farming" by W. R. Graham, Belleville

The season is now drawing near when we again begin to make preparations for rearing chickens. Now, since there is such a grand outlet for our surplus stock in the British market, and at such paying prices, we can well afford to pay more attention to the "much-despised hen."

Selection pays as well in fowls as in any other form of live stock. Some remarkable egg yields have been got from hens bred from selected pens, where a large egg output was the ideal of the breeder. Therefore, it is to the interest of all to select only the best, and breed from them.

Select a dozen of your best hens, and put them in a coop by themselves. These, if properly fed and handled, will lay all the eggs needed for hatching purposes on a farm. And, furthermore, the balance of the flock will lay more eggs of a better flavor, and also eggs which will keep longer, when the male birds are kept away from the flock. Too much of the profits are now consumed by unneeded male birds. Remember, "like begets like," and, if eggs are going to be sold by the pound (as they should be), and as they are in England, we must be ready when the time comes to sell that way here. Strange as it may seem, the less eggs it takes to make a pound the more they are worth. There is also a preference in England for brown eggs. It is claimed that they will keep longer. Therefore, with these objects in view, select your best *winter* layers that have laid large brown eggs, and lots of them.

Another point of great importance is that every hen be in perfect health. Any hen that has had any disease, such as roup, etc., is not a bird to be selected as a breeder, as the progeny have a weakness or liability to the same disease. Take plenty of time, and select as good a pen as you have.

The old saying that "the male is half the flock" has its weight. Never use anything but a pure-bred male. Scrubs are hard to feed, and the results are very unsatisfactory and discouraging, both in the line of egg production and fattening. Generally speaking, some of the general purpose breeds, such as the Plymouth Rocks or Wyandottes, are the best fowls for the farmer. It is not necessary to have a show bird. They are very expensive, and are not a mite better for grading up a flock than a good pure-bred male whose feathers do not happen to be of the exact shade. Every breeder has these, and is willing to part with them at very reasonable prices. Get the shape and constitution, together with parents of good egg-producing qualities, and you will have a good sire in all probability.

These fowls should have a roomy pen; at least seven square feet of floor space to each fowl. The pen should have plenty of light, should be dry, have a dust bath, etc., or, in other words, have all the little things that go to produce health, for it's vigor you want in the chicks. Too many fowls lack in constitution, and, if the best results are to be obtained, this must be watched. Do not inbreed.

Set the eggs from this pen only. Mark each day's eggs, with the date of the month, and set only the freshest ones, as these are likely to have the strongest germs in them. Give the fowls *plenty of exercise*, also a liberal diet of meat or green cut bone. These will help to get plenty of strong, vigorous chicks.

In another article we shall write about the setting hen and her family.

Institute Work in New Brunswick

(Special Contribution)

In this province the work is only well begun, and there is a wide field. The meetings are under the direct control of the Farmers and Dairymen's Association of the Province, which receives a yearly grant of one thousand dollars from the Provincial Government. While the farmers of the province, as a class, are intelligent, they are much behind their brethren in Ontario in up-to-date agriculture. Up to the present time, they have been more interested, as a rule, in lumbering and fishing than in the development of their farms. Large quantities of beef, pork, and grain are still brought down from the western provinces.

Owing to the work of the Government Dairy Instructors and the F. & D. Association slow but steady advance is being made in dairying, for which many sections of the province are splendidly adapted. A fine new dairy school will soon be opened at Sussex, with Superintendent Mitchell at the head, assisted by Dairy Superintendent Hopkins, of the Dominion Dairy staff, and Mr. W. W. Hubbard, with other capable men as assistants.

The Institute Corps has met with good success at all the meetings held during the past month. Messrs. Hopkins and Hubbard discuss dairy matters; Mr. W. S. Blair, of the Experimental Farm, Nappan, deals with fruit culture; J. J. Ferguson, B.S.A., of Smith's Falls, Ont., talks on "Breeding and feeding bacon pigs"; Superintendent Robertson, of the Nappan Farm, treats of the work of that institution, with special reference to dairying. Mr. W. A. Jack, a practical poultry breeder, of St. John, discusses "hen matters" in general. So far, the weather has been exceptionally favorable for the carrying on of the work. There is still a couple of weeks of work ahead of the delegations.

The Best for a Farmer

Bowmanville, January 31st, 1899.

DEAR SIR.—In renewing my subscription I would say I am much pleased with FARMING, and consider it one of the best papers for a farmer he can procure. I have found it very helpful to me, as I have been buying in some purebred stock. Hoping it may have continued prosperity, I remain,

Yours,

SAMUEL SNOWDEN, JR.

An Everlasting Fodder Plant

A Mr. M. C. Ginster, of Erdington, Birmingham, England, describes this plant in a recent issue of the Lincoln *Mercury* and speaks of it as furnishing a means to the British farmer for overcoming the agricultural depression which seems to be hovering around him. He points out that after the second year this plant will yield from six to seven tons of hay per acre on poor stony, sandy land. Further on the writer says: "This plant requires no manure, and, after the second year, no care; it is independent of all weather, and when the sun has burnt up everything else it keeps on growing. It yields abundant crops for fifty years, and, according to analyst's report, is richer than pure oil cake; so rich that to one ton of lathyrus hay must be added two of straw chaff. It is suitable for all cattle, notably milking cows. Farmers thus need not buy oil cake and other feeding stuffs, but can save the money formerly expended on them, and by merely using up land totally valueless for any other purpose whatsoever. If their land is swampy the plant known as 'pologonum,' and quite as nutritious as the 'lathyrus,' would be of service." If this plant, which Mr. Ginster calls the "lathyrus," will do one-half what he claims for it, it is just what the dairyman and cattle feeder of every country requires. If any of our readers know anything about this wonderful plant or have had experience with it we should be glad to hear from them. A plant known as *Lathyrus Sylvesteris* has been grown on the Experimental Farm, Ottawa, for several years in small plots.

Butter and Egg Co-operation in France

A movement is on foot in France to attach an "Egg department" to their system of co-operative dairies. The plan is simple and works well. Each member of the Dairy Association undertakes to send not less than 200 eggs per week on two fixed days; a distinction is to be made between eggs for consumption and those intended for hatching. Members can only send the product of their own hens and at their own expense to the creamery office. To secure that the eggs be in a fit and proper condition the members will bind themselves to remove the eggs daily from the nest, and leave as the nest-egg one of porcelain. There is a heavy penalty for sending old or spoiled eggs. The creameries undertake the sale of the eggs and secure the best market price. Associated with the egg industry that of poultry will be added later on.

This is extending the co-operative system in a practical way. If it were practicable to do the same work in connection with our co-operative cheese factories and creameries it would go a long way towards solving the problem of how to collect the eggs from the farmers in a perfectly fresh condition. Cold-storage facilities could be provided at the factories, where the eggs could be kept in a fresh condition and packed ready for shipment to the large cities or direct to Great Britain.

Oil in Road-Making

Along a certain clay road in Pennsylvania there was an oil pipe line which sprang a leak and spouted a considerable quantity of oil over the road. It was noted that on the spot where the oil had spilled the roadway showed a marked improvement over the parts of the road where there was no oil. The explanation of this was that the oil formed a water-tight covering to the road, and the earth beneath being dry no ruts or mud could form and the road became good.

This led Mr. M. Meig, an engineer in the employ of the United States Government, to make an experiment. This experiment was conducted last November with crude oil. A newly graded piece of dirt road was coated with oil, distributed by means of an improved sprinkler over a strip about 12 feet wide by 200 feet long. A second part of the road was sprinkled a little lighter, making about 500

or 600 feet in all, and eight barrels of oil were used in the experiment. The day after the oil was applied and before it had time to be absorbed a heavy rain fell. The road was examined during the rain and where oiled it was evident that the dirt beneath the surface was still dry and retained its supporting power, while on each side of the oiled portion it was muddy and rutty. A heavy frost, with the temperature at zero, followed the rain. The oiled portion after this was perfectly smooth, and the wheels made on it a muffled sound that showed the dirt beneath the surface was unfrozen and dry, while the unoled portion was cut up with ruts one to two inches deep and frozen rough and hard. Crude oil costs from 60 to 90 cents per barrel at the wells in the United States, so that its application to a roadway is not a very expensive affair.

A New Use for Barnyard Manure.

A French authority states that farmers are wasting their time in using barnyard manure or refuse as a fertilizer. The contention is that the chemical constituents of manure, which alone are valuable, form such a small part (about 1.62 per cent.) that there is a great waste of time and labor in putting it on the land. The rest consists of water, of unassimilable woody fibre and mineral matter of which the soil has always a plentiful supply. All this is considered as dead weight which serves to retard the effect of the active constituents, and it is claimed that it would be better to employ the chemical constituents proper, a handful of which represents effectively the vegetative force of a ton of manure. It is also added that the small percentage which is of use is constantly wasting because of fermentation causing the gases such as ammonia to escape.

The director of the Pasteur Institute at Lille has devised a means of using these gases. To this end he advises covering the manure with a bell-shaped cover furnished with a tube that ends in a receiver filled with acidulated water. The ammonia, instead of dispersing through the atmosphere, could be collected in liquid form, from which the ammoniacal salts could easily be secured. It is also claimed that the other gases formed by fermentation, such as carbonic acid and gaseous hydro carbons, will burn in the open air and if this received were furnished with a gasometer could be utilized for lighting the buildings on the farm. This is an ingenious plan and may come into use after a while. It shows, however, what can be done when science is applied to agricultural subjects.

Sheep versus Dogs

A new England sheep-raiser claims to be able to keep dogs from his sheep by a barbed wire fence, so constructed that neither the dogs nor the sheep can get through. The fence consists of seven strands of barbed wire on posts eight feet apart, with a wooden rail below the top wire to steady the posts, the total cost being \$67.20 per mile, which seems very low. The first strand of wire is put very close to the ground so that sheep and dogs cannot crawl under, and should not be more than three inches from the ground at any point. The second wire is put four inches above the first, the third five inches above the second, the fourth six inches above the third, the fifth six inches above the fourth, and the sixth eight inches above the fifth, then a wooden rail eight inches above the sixth wire, and a seventh strand of wire eight inches above the wooden rail.

Such a fence would certainly enable a farmer to protect his sheep from dogs. There is one strong objection to a barbed wire fence for such a purpose and that is that so much wool would be lost by the sheep coming in contact with the bars. The writer states, however, that this would not amount to much even in a large flock of sheep.

Mr. Elias Pannabecker, of Hespeler, Ont., says: "I like your weekly very much."

CORRESPONDENCE

Distribution of Cereals for Improvement of Seed

To the Editor of FARMING:

For the past ten years systematic efforts have been made to increase the average returns and to improve the quality of the cereals and other important farm crops grown in Canada by an annual distribution from the Experimental Farm at Ottawa of samples of seed of the best and most productive sorts. These varieties have been first tested at the Experimental Farms, and only those which have proven to be the very best have been chosen for this distribution. The samples sent out have contained three pounds each, and every precaution has been taken to have the seed in every instance thoroughly clean and true to name, and the packages have been sent free through the mail. Those who have received such samples and grown them with care have usually had at the end of the second year enough seed to sow a large area, and in this manner careful farmers all over the Dominion have been gradually replacing any inferior and less productive sorts which they have been growing in the past, with superior varieties possessing greater vigor.

By instruction of the Hon. Minister of Agriculture, another such distribution is being made this season, consisting of samples of oats, barley, spring wheat, field peas, Indian corn and potatoes. These samples will be sent only to those who apply personally. Lists of names from societies or individuals cannot be considered, and only one sample in all can be sent to each applicant. Applications should be addressed to the Director of Experimental Farms, and may be sent any time before the 15th of March, after which date the lists will be closed, so that all samples asked for may be sent out in good time for sowing. Parties writing will kindly mention the sort or variety they would prefer, and then, should the available stock of the sort asked for be exhausted, some other good variety will be sent in its place.

WM. SAUNDERS,
Director.

Experimental Farm, Ottawa, Feb. 7, 1899.

Lucerne as a Hay and Fodder Crop

To the Editor of FARMING:

In your issue of January 24th I saw an article on Lucerne clover, by Mr. A. Rawlings, of Forest, Ont, and thought he had taken the wind out of my sails, as I had thought of giving you my small experience. But as he gave us the value of Lucerne as a pasture only, I will, with your permission, give you my experience with it as a hay and green fodder crop.

In the winter of '97 one of the speakers at our Institute meetings recommended it very highly, and said he would not try to run a farm without it, and that he had then 27 acres seeded down with Lucerne. I took his advice and in the spring sowed two small pieces, one about three acres and the other just half an acre, near the barn to cut green for cows and pigs and help out the pasture. This was sown with peas and oats, which I cut green. Where I cut this feed first the Lucerne did the best and grew very fast after the peas and oats were off. In a few days it was a foot high and I turned the cows in several times. Then it grew till October, when I cut nineteen good cocks of hay (first year).

This last spring, on the 18th of May, I commenced to cut the Lucerne for pigs and cows at night. I have for years sown cow corn for this purpose, but I see that I will not need it any more. On the 1st of June I cut what was left, eighteen cocks; cut the second crop on July 8th, the third on August 18th, and as we got no rain for weeks I did not cut the fourth crop until October 10th, and it was some time curing but made good feed. These cuttings

made 72 good 100-lbs. cocks of hay from half an acre besides all the green feed I needed for seven cows and a lot of pigs.

Lucerne beats anything I have ever sown for growing, even in dry weather. Through the very dry and hot time last summer it was about the only real green part of the place, and I found out the reason last fall; when I dug a ditch across one end of the field I found roots $3\frac{1}{2}$ feet down. I think the plant goes to the water, and consequently does not depend upon the rain.

The larger piece I only cut twice, June 9th and August 18th, and it gave a lot of pasture, and I noticed that the cows and horses kept on it when there was lots of good feed elsewhere. The hay keeps its colour and looks as green now as when put in the mow, and the cows, horses and pigs eat it now in preference to red clover. I have heard several objections to it, viz., that it is almost impossible to plow the sod under. (Perhaps Mr. Rawlings can tell us about that, as he has had some of it plowed.) Also that it is too woody, etc., which might be true if sown too thin and left standing too long. I cut it when in first bloom.

I sowed it thick and it grew straight up and fine like timothy. I would not sow less than 18 to 20 lb. of seed to the acre, and then it cannot stool out and grow big and woody stalks like a bunch of sweet clover (which it resembles). The stocks are solid and it makes heavy hay.

Farmers as a class are called close or stingy, and I often think when I see some of them sowing clover seed that they deserve it. They try to make a peck of seed cover a big field, and then blame the seedsman because it is a poor catch. This is a very poor way to economize. I have not sown a bushel of grain in years without sowing clover with it, even when I turned it under for another crop. It pays well and will make poor land rich. I have proved it. Prof. Robertson says "Clover is King." We used to think clover hay would give horses the heaves. All nonsense, of course. They like it and will eat more than they really need. If you keep the manger full the horses will be full too, and if driven hard or worked their wind will be short. It is not the kind of hay but the quantity, except the clover is badly cured and is musty, which causes the trouble.

But, Mr Editor, perhaps you will think my wind is too good and I will close, but I never tire in talking about and recommending or advising farmers to grow clover, because it pays. I took six good loads off three acres this dry summer the first crop, and threshed eight bushels of seed from the second crop. Can you do that with a grain crop? I think no, and if Mr. Rawlings and I can persuade farmers generally to raise more clover, especially Lucerne, we will not have lived in vain. All of my neighbors who saw my two pieces this summer or heard about it say they are going to sow some next spring.

Thanking you for space in your really valuable paper (which I think no farmer should be without),

I am, yours, etc.,

W. H. DAVIS.

Tweed, Ont., Jan. 31st, 1899.

An Extraordinary Milk Yield

The Annandale Farm,
Tilsonburg, Ont., Feb. 1st, 1899.

To the Editor of FARMING:

MILK RECORD FOR YEAR ENDING MARCH 10TH, 1898.

Herd consists of 55 cows, about one-fourth of them registered Holstein, the balance are about three quarters Holstein blood, crossed Holstein bull with Shorthorn cows; about one-sixth of the number were two year-old heifers with first calf, which were milked from twelve to fifteen months and some few of the poorer cows, that were culled out for beefing, were also milked over a year, which accounts for the average long period that the herd were milked, viz. 11 months, 23 days. As a rule,

we aim to milk our cows from ten to ten and a half months, giving them from six to eight weeks rest.

Our best cow (No. 56) is six years old, half Holstein, half Shorthorn. The first year, as a two-year-old heifer, she gave 10,000 pounds in 11 months. Next year, 15,000 pounds. The next year, 17,700 in 10 months, 21 days. This year so far (10 months) she has given 18,000 pounds, and if all is well we intend milking her two and a half months longer, and expect she will give in the twelve and a half months 20,100 pounds. Her milk tests average three and six-tenths butter fat, which would be equal to 840 pounds butter in one year, 15 days. We are anticipating the two and a half months ahead. We do not know what may happen in that time, but we have every prospect at the present of her giving the 2,000 pounds in the next two and a half months.

Our herd consisting of 55 cows gave last year	563,307 lbs. milk.
Average per cow.....	10,242 lbs. milk.
Average butter fat $3\frac{1}{2}\%$ butter per cow....	418 lbs. milk.
Average time of milking.....	11 $\frac{3}{4}$ months.

Ten of our best cows averaged.....	13,722 lbs. milk.
Ten of 2nd " ".....	11,887 "
Ten of 3rd " ".....	10,809 "
Ten of 4th " ".....	9,453 "
Ten of 5th " ".....	7,587 "
Five of the poorest ".....	5,742 "

The whole herd of 55 cows averaging 10,342 lbs. and 418 lbs. butter.

This year we expect they will do considerably better. Our year will not be up until the 10th of March. Several of them are still milking on this year's record, but we have made up a record of those that have milked their full season, about forty of them, taking them in their regular order as recorded in books, as they have gone dry, and we find that they, the 40 cows, have averaged this year 11,660 lbs. of milk, butter-fat $3\frac{1}{2}$ per cent., making 476 lbs. butter, and, by putting in our best cow, No. 56, now milking 10 months, 18,000, it would bring the average up to 11,800 lbs., and the average time of milking would be 12 months, the heifers and beef cows making the average time longer. Average amount of butter per cow for the 41 cows 12 months would be 482 lbs.

Now, perhaps you would be interested to know how we care for and feed our cows. In the first place, we have a very comfortable stable, warm, well lighted, and well ventilated, roomy, single stalls, cows tied with chain around neck, with fresh spring water and salt always before them, and kept well bedded and made comfortable. We turn them out for an hour or two on fine days once or twice a week for exercise, but never in wet, stormy, or very cold weather. We feed the first thing in the morning, before milking, good, well cured, and well saved clover hay, cut and cured rather on the green side, cut in the first blossom, cut a week or ten days earlier than my neighbors cut theirs, and cured in cocks covered with cotton hay caps. We feed clover hay last thing at night after milking. Feed 20 lbs. good corn ensilage with six lbs. of grain feed spread on top of it, after milking in the morning, and the same in the p.m. before milking, and sometimes wheat or oat straw. At noon they like a variety of feed, as well as we do ourselves. Our grain consists of six lbs. wheat bran, three lbs. pea meal, and two lbs. of cotton seed meal per day in two feeds. We sometimes substitute corn meal for the pea meal, and oil cake meal for the cotton seed meal, always prefer pea meal to corn meal when it is reasonably cheap in price. We like the cotton seed meal for summer and oil cake for winter, when it is not too high in price, also like pea meal better than corn meal when it is not too high in price. We are now feeding the cotton seed and corn meal, because they are both so much cheaper. Cotton seed \$7 per ton less than oil cake, and corn meal \$7 cheaper than pea meal. We feed all the clover hay they will eat, 40 lbs. ensilage, 11 to 12 lbs. grain feed on an average, and feed the very heavy milkers a little more and the poorer milkers less. The best cow, No. 56, gets from 16 to 20 lbs. of grain feed per day same mixture and according to

the amount of milk she is giving. We feed ensilage and grain all summer, except in June, about half the ration both of ensilage and grain in summer as we feed in winter, and in very dry and hot weather in fly time keep cows in days and out in pasture nights, and let them run in pasture from 20th May to Oct. 1st. No matter how good the pasture is, my cows are very fond of eating ensilage in the summer and prefer it to green soiling crops fresh cut, and we find it much cheaper and much more convenient feeding. We have cows coming in fresh every month in the year, but prefer having the greater number coming in fresh in the fall and early part of the winter. Raise all our calves and keep weeding out all the poorest cows for beef. Weigh each cow's milk separate once a week and keep a record, also use the Babcock tester.

You might ask if we can give any reason for our cows giving so much more milk this year than last, the difference being between 10,242 lbs. last year and 11,800 lbs. this year, a difference of 1,558 lbs. per cow. Before this last year, we have never been in the habit of feeding our cows a regular ration of green feed or ensilage and grain all through the summer, but just a little to help them over a very severe drought; and when the pastures would be dry and poor during the middle of the summer the cows would be dry and poor during the middle of the summer the cows would shrink in their milk, and when a cow falls off in her milk you can never bring her up again that season no matter how well you feed her afterwards, and that is where our farmers make a great mistake. In a dry time in summer their cows fall away or shrink from one-third to one-half in their milk flow again that season. Last season we fed our cows all summer, whilst in either good or bad pasture and, with the exception of June, fed a full winter ration of ensilage and grain, some of the time alfalfa fed in the stable at milking time morning and night, ensilage once a day and alfalfa once a day alternately. We are great believers in alfalfa, have four acres and cut it four times a year and feed it green to both hogs and cattle. Fed it last year for the first time to our pigs, 300 of them and also occasion-

ally to our cows, alternately with ensilage. We find alfalfa to be one of the most profitable crops of clover that we can grow, either for hay or green feed or for fertilizing the land. It stands the drought better than other clover and produces such tremendous heavy crops, four crops in a season. Well, now, to give you an idea of what the benefit in feeding cows all summer, we will say that we feed a half ration, say 20 lbs. of ensilage costing \$2 a ton, equal to 2c. per day, and 5 lbs. of bran and meal, \$12 per ton, 60c. per 100, 3c. per day making the feed to cost 5c. per day for 150 days extra for summer months. You will see in my milk record for the two years that my cows this year through this treatment gave 1,558 lbs. each more than last year under the old treatment of feeding only in time of severe drought. Our milk brings us \$1 per 100 lbs. in butter and skimmed milk, making a gain of \$15 50, less \$7.50 for feed, or a net gain of \$8 per cow for the extra feeding, and the extra manure saved will pay for the extra labor, and then the cotton seed meal and bran make a great improvement in the butter in warm weather. A clear gain of \$440 on the 55 cows.

Yours truly, E. D. TILSON.



Better than Any Other Paper

Wisnburg, Ont., February 3rd, 1899.

DEAR SIR,—Enclosed find \$1, my subscription for 1899. I find FARMING of more benefit to me than any other paper.

Yours truly,
IGNATIUS HAUSER.

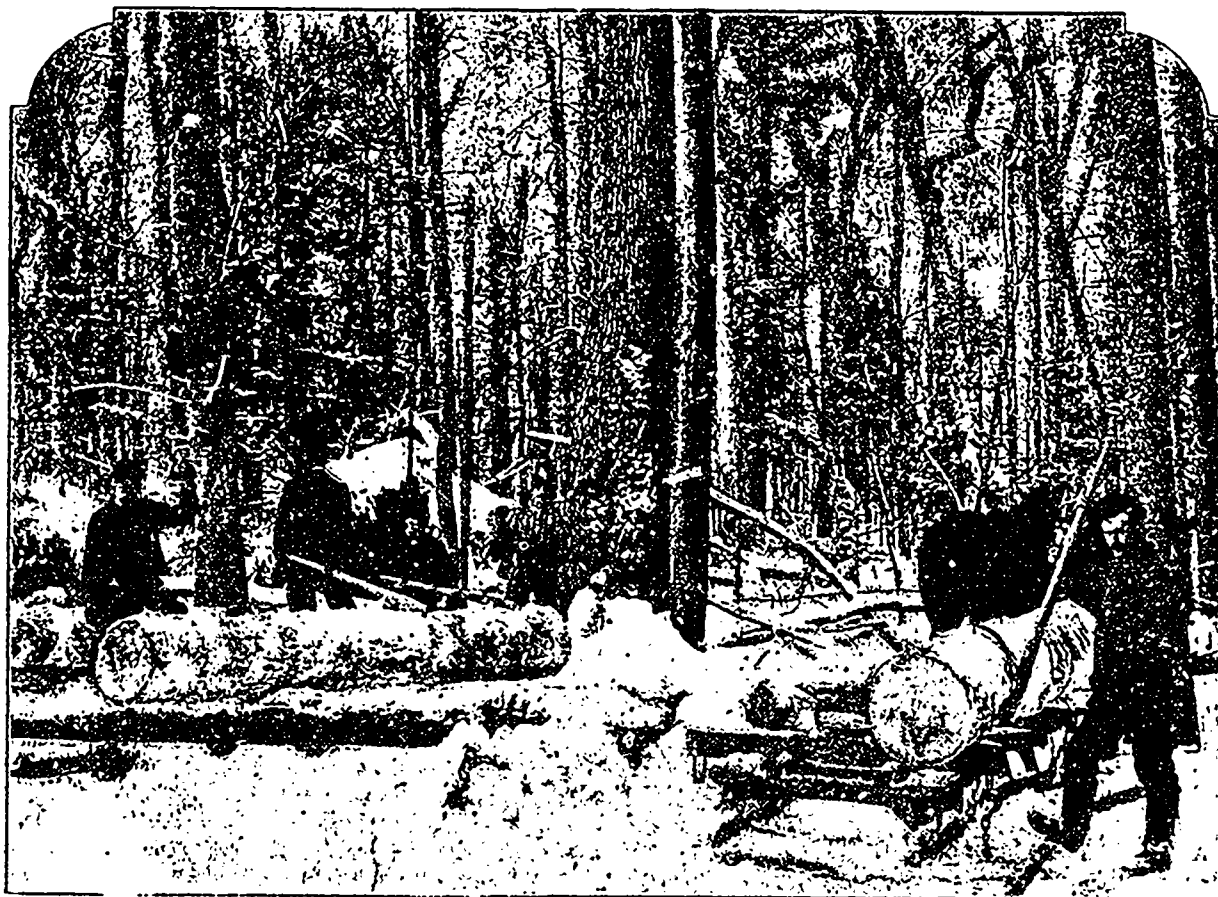
Always Improving

Vernon River, P.E.I., January 31st, 1899.

To the Editor of FARMING:

DEAR SIR.—Enclosed please find \$1 for renewal subscription to FARMING. Hoping you will continue improving your valuable paper as in the past, and wishing you a happy and prosperous New Year.

Yours very truly,
JOHN M. McLROD.



A Canadian Winter Scene.

CLYDESDALE BREEDERS.

The thirteenth annual meeting of the Clydesdale Association was held on Feb. 9th, Mr. Robt. Davies, retiring president, in the chair. Mr. Davies congratulated the members upon the present condition of the horse market. The demand, while not brisk, was certain, and the superior animal could be disposed of at a profit. There was great necessity for perseverance in the work of improving the stock and the advancing of the association's interests. They should consider the animal first, and the price it would bring afterwards.

The report of the secretary treasurer, Mr. H. Wade, was a very satisfactory one. There had been a decided improvement in matters affecting Clydesdale interests. There had been a renewal of importations of breeding stock. One importer has brought out eleven recently. There has also been considerable movement of Clydesdales from Ontario to points in the Northwest. Registrations during the year numbered 252, as against 99 in 1897. The membership has increased from 29 in 1897 to 69 paid members for 1898. The total receipts were \$563.32, and expenditures \$469.15, leaving a balance of \$94.17. The assets are \$3,126.17.

Resolutions were passed re the exportation of stock to the United States, and authorizing the opening up of negotiations with the railway companies in order to obtain the same terms for shipping stock as those now enjoyed by the breeders of purebred cattle, sheep, and swine. \$50 was voted to the spring Horse Show.

The officers for 1899 are: President, Peter Christie, Manchester; 1st vice-president, John Davidson. The retiring president and vice-president were elected on the Board of Directors, as was Mr. James Innes, Clinton. The other officers, with some exceptions, are the same as last year.

CANADIAN HORSE BREEDERS' ASSOCIATION.

The fifth annual meeting of this association took place on the evening of Feb. 9th at the Albion Hotel, Toronto. Mr. Robt. Davies, president, presided, and the attendance was good. The report of the secretary referred to the last spring Horse Show as being a very successful one, and, while there was a falling in the heavy classes, due somewhat to the late date at which the show was held, yet the loss was much more than made up by the increased number of splendid harness horses shown. The total receipts of the Horse Show were \$4,952.25, of which there was expended in prizes \$3,385, and for running the show \$817.50, thus leaving a substantial balance to be divided among the organizations controlling the show. The total receipts of the Canadian Horse Breeders' Association were \$1,691.88, and expenditures \$72.12, leaving a balance on hand of \$1,619.76.

As the military authorities have decided not to co-operate in a Horse Show and Tournament this year there was some discussion as to whether it would be advisable to hold a show or not. A form of agreement was read by the secretary outlining terms by which the Country and Hunt Club and the Association might unite in holding a show this spring. This agreement seemed to be acceptable to the members present, and it was unanimously decided to hold a show from the 12th to the 15th April in conjunction with the Hunt Club and that the directors be instructed to arrange as satisfactory terms as possible with the Club re financing and managing the show.

A resolution was adopted appointing a committee to interview the railway authorities re securing the same privileges for the transportation of purebred horses as those now enjoyed by the breeders of other purebred stock. An invitation was received from the National Horse Breeders' Association of the United States, asking the association to send delegates to consult with that organization with reference to the trade in horses and veterinary inspection.

The following is the list of officers, 1899: President, Dr. A. Smith; 1st vice-president, H. N. Crossley; 2nd vice president, R. Beith, M.P.

Directors—Hackney Horse Association, R. Beith and John Macdonald; Clydesdale Association, R. Davies and R. Graham; Shire Association, H. N. Crossley and W. E. Wellington; Thoroughbred Association, Dr. Smith and W. Hendrie, jun.; Trotting and Pacing Association, S. Fuller and E. W. Cox; Draught Horse Association, A. McInnes and J. Henderson; Additional Directors, George Pepper and D. B. Simpson.

Delegates—To Industrial Exhibition, H. N. Crossley and D. B. Simpson, London Fair, R. McEwan and O. Sorby.

Special committee to arrange Horse Show—Dr. Smith, R. Davies, H. N. Crossley, J. Macdonald and H. Wade.

HOLSTEIN-FRIESIAN ASSOCIATION.

The Canadian Holstein-Friesian Association held its annual meeting on Feb. 7, there being a good attendance of the members present. The president, Mr. W. G. Ellis, presided. The secretary-treasurer's report showed the association to be in a very satisfactory condition financially and otherwise. The total receipts for 1898 were \$1,580.93, and disbursements \$959.14, leaving a balance on hand of \$621.79. The total registrations last year were 407 and transfers 158, making the total registration 565. The officers of 1899 are: President, W. G. Ellis, Bedford Park; 1st vice-president, A. C. Hallman, New Dundee; 2nd vice, T. W. Charlton, St. George; 3rd vice, Alfred Rice, Curries; 4th vice, G. A. Gilroy, Elm Buell. Mr. Wm. Stunk, Sherwood, and A. Hoover, Jr., Emory, were elected directors in place of the two who retired this year. Mr. G. W. Clemons was unanimously re-elected secretary treasurer.

The representatives to the various Fair Boards are as follows: Toronto, W. G. Ellis and Wm. Shunk; London, Edwin Scatcherd and J. W. Johnson; Ottawa, G. A. Gilroy and Joseph Fletcher; Winnipeg, James Glennie and J. T. Hutchinson; Montreal, G. A. Gilroy and Mr. Keillor; Sherbrooke, John Pickering and Ogden Sweet; St. John, O. J. Peters. It was decided to recommend the various Fair Boards that only one judge be engaged as was done previous to 1898. The following were recommended as expert judges for Toronto, Henry VanDriess, C. Bleckill, N.Y.; A. F. Cole, Morrisville, N.Y., and D. J. Hinckley, South Brucefield, N.Y. London, Wm. Shuring, T. W. Charlton and T. H. Patton. Ottawa, H. A. Bollert, R. S. Stevenson and Wm. Shunk. Montreal, Wm. Shunk, A. C. Hallman and H. A. Bollert. Winnipeg, T. W. Charlton and A. Rice. Brandon, G. A. Gilroy.

Mr. W. A. Matheson, Utica, N.Y., president of the American Holstein-Friesian Association, and Mr. Henry Stevens, Tacoma, N.Y., were present in the interests of the amalgamation of the American and Canadian Records. After some discussion on the subject a committee consisting of the president, secretary and T. W. Charlton, was appointed to confer with a committee from the American Association in regard to the matter.

DOMINION SHORTHORN BREEDERS.

The thirteenth annual convention of this association was held on Feb. 5th. The president, Mr. James Russell, Richmond Hill, in the chair. There was a large and representative meeting, one of the best the association has ever held. Members were present from as far east as Nova Scotia and as far west as Brandon, Manitoba. The treasurer's annual statement was a very satisfactory one; the total receipts for the year amounted to \$13,805.95, and the expenditure to \$5,627.91, leaving a balance of \$8,178.04. The total assets of the association amount to \$16,663.04, against which there are no liabilities. The total paid membership for 1898 was 713, of

which 250 were new members. The total pedigrees on record are 62,071. In 1898 5,386 registrations, 5,555 certificates, and 1,064 changes of ownership were made, a large increase over previous years. The right and title of the Prince Edward Island Herd Book was obtained last year, and the association is now, in every sense of the term, a Dominion organization.

A number of resolutions were adopted of great importance to the Shorthorn industry, and which are as follows:

All pedigrees sent for record must be signed by the breeder, or, in case of death, by a proper representative; the breeder of an animal being the owner of dam at time of service.

That we set apart the sum of \$750 from the funds of the association to be given in premiums for Shorthorns at one of the leading shows in Ontario, and that the said sum be placed in the hands of the Executive Committee, to be granted to either London or Toronto, wherever the best arrangements can be made for supplementing this grant.

That in addition to the sum already voted for prizes \$800 be put into the hands of the Executive Committee to dispose as they may deem fit for Shorthorn premiums at the different large exhibitions in the Dominion.

That the sum of \$500 be voted from the funds of the association to the Winnipeg exhibition for Shorthorn cattle, for prizes, on condition that they give the same amount towards that purpose as they did last year.

That we, the Shorthorn Breeders of Canada, assembled in our annual meeting, do today ask the Dominion Government to allow cattle from Great Britain to come into Canada without being tested for tuberculosis. (A rider was attached that the United States be included in this resolution provided they granted Canada the same privileges.)

Whereas this association has learned that purchasers of Shorthorn cattle for exportation to United States are put to much inconvenience and delay in shipment because of the necessity under the present regulations of registering in the American Herd Book in order to pass the customs; therefore, resolved that inasmuch as the standard of the Dominion Shorthorn Association is precisely the same as that of the American record, and that such cattle to be useful in the United States must in the end be recorded here, this meeting is of opinion that every interest would be subserved and properly protected by admitting Shorthorns on presentation to the customs authorities of properly accepted certificates of registration signed by the registrar under the control of the Department of Agriculture for Ontario; resolved further, that a committee be appointed to enlist the co-operation of the American Shorthorn Association in presenting this view to the proper authorities at Washington.

The Hon. John Dryden strongly favored the last resolution. He instanced a case in which Canadian sheep recorded in the American Shropshire Record were not allowed to pass the custom authorities on the border. If this is done in connection with their own records it is little wonder that Canadian records are objected to. The American Shropshire Association is sending a resolution similar to the above to the Washington authorities and appointing a committee with a view to having their difficulties remedied.

The officers for 1899 are the same as for 1898 with the following exceptions:

Hon. Thos. Greenway, Vice-Pres. for Manitoba, in place of Jno. E. Smith; H. W. Shatruck for Alta., in place of Jno. A. Turner; W. H. Henlack for Assa., in place of F. W. Green; W. D. Flatt, Hamilton, director, in place of Wm. Dawson, Victoria; W. D. Cargill in place of H. Cargill, M.P. Mr. C. C. Gardiner was appointed representative to the Prince Edward Island Fair in place of F. S. Hazzard. The Executive Committee will be the same as last year.

At the conclusion of the business Mr. J. C. Hawley, Reed, Ont., read an interesting paper on "What Shorthorns have done for the improvement of Canadian cattle."

SHIRE HORSE BREEDERS.

The Shire Horse Breeders' Association held its annual meeting on Feb. 9th, Mr. H. N. Crossley, president, presiding. In his opening address, Mr. Crossley anticipated a much larger importation of Shire horses the coming season than for several years back. Better prices had lately prevailed.

The secretary-treasurer, Mr. Henry Wade, in his annual report showed that there had been better results during the year in the way of registration and membership fees than heretofore, but there was still room for progress. The total receipts were \$76.18, and the expenditure \$23.50, leaving a balance of \$52.68.

The meeting adopted a resolution similar to that adopted by the Shorthorn Breeders in regard to securing better arrangements on the border for the exportation of Shire horses to the United States.

The officers for 1899 are President H. N. Crossley, Rosseau; vice-president, W. E. Wellington, Toronto. The directors are the same as last year with the exception that Thos. E. Kinner, Mitchell, replaces John Semple, Tottenham. The judges recommended for the spring Horse Show are: R. Gibson, Delaware, and Dr. R. P. Eberker, Springfield; for other shows, R. Gibson, J. Y. Ormsby, John Gardhouse and Thos. Kinner.

Stock Notes

Mr. E. E. MARTIN, of Canning, Ont., has a number of fine young Berkshires which he finds necessary to dispose of this month in order to make room for young stock coming in, and is advertising them specially in this week's issue. See his advt.

MESSRS. SILLS, SHAVER & SON, of Winchester Springs, Ont., write: "We are having good success supplying Yorkshires and Jerseys. Have just made sale of six Jerseys, Feb. 2nd., to one man. Have sold about \$1,000 worth of Jerseys the past year, stock comprising from forty to sixty head. Have shipped some Jerseys to Manitoba. We are breeding our Jerseys to get the best producers of milk and butter. Make our butter up at home and get a fancy price for it in Montreal. We have now on hand three young bulls ready for service which cannot be excelled in America for pedigree and points of excellence in dairy form. They are all solid color, one light colored and two dark ones. They are beauties, and from noble cows, showing high butter-fat tests and large producers; one 2-year-old and two yearlings. Would be pleased to give fuller particulars on application. Will have plenty Yorkshire pigs ready to ship soon. Also have some excellent boars ready for service. Our object is to please people with what they get from us."

Mr. JAMES WILSON, the well known proprietor of Monkland Mills, Fergus, Ont., is advertising cheap cattle feed in this week's FARMING. See his advt.

GOODFELLOW BROS., Macville, Ont., have recently sold to the Hon. Thomas Greenway two very fine Shorthorns. One of these is the 15 month old bull calf, Golden Flame, winner of second prize in his class at the Toronto Industrial in 1898, and the other is the two-year-old heifer, Lady Anne. Both will give a good account of themselves in the West.

Mr. J. J. KEATOR, of Deseronto, is advertising Jersey cows and heifers of the St. Lambert strain in this week's issue. See his advt. on page 442.

POINTERS FOR STOCK BREEDERS.

How are people to know what you have to sell if you don't tell them? Stock which is not worth advertising is usually not worth buying and not worth selling.

There is no business of any kind, provided it is worthy of patronage, that cannot be greatly increased by judicious advertising. To make money you must be willing to spend

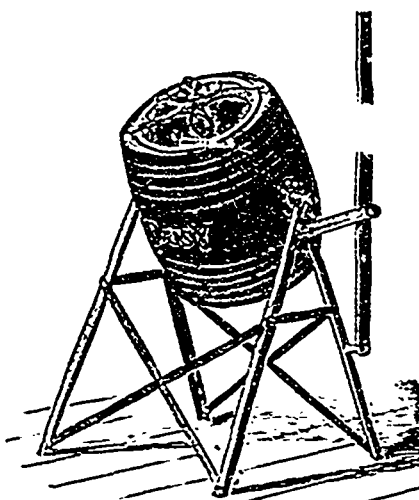
**PAGE
FENCE QUALITY.**

When you seek the best fence that can be made from wire, we know that you will buy the

Famous Coiled Spring Page.

It isn't like any other on earth—it's better. It was the first and it is still the foremost woven wire fence. For the truth about its uses and quality, address

THE PAGE WIRE FENCE CO. LTD.
WALKERVILLE, ONT.



The "Daisy"
Barrel Churn, 1899

ANGLING STEEL STAND
BICYCLE BALL BEARINGS
PATENT LEVER

CHURNING MADE SO EASY YOU READ
YOUR BOOK WHILE YOU CHURN . . .

Manufactured only by
THE WORTMAN & WARD MFG CO
(LIMITED)
LONDON, ONT.

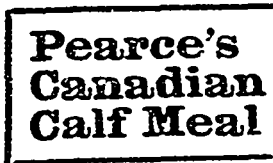
Eastern Importer: G. McGill, ST., MONTREAL.

READ OUR CLUBBING LIST

If you take any paper it will pay you to club with FARMING.

**Raise Your
Galves!**

Yes, we know your skim-milk has been through a cream separator and no trace of butter-fat remained in it, also that you are discouraged by many failures made by feeding raw grain meals in your skim-milk, but one way still remains, feed



which is a scientifically prepared, pre-digested food, one that will add more, and more easily digested nourishment, to your skim-milk than the cream separator has taken out, and at from one-quarter to one-third the price that you get for the butter-fat.

See how cheap Pearce's Canadian Calf Meal is:

Box of 28 feeds for	\$0.25
" 60 "	0 50
Sack of 136 "	1 00
" 50 pounds for	2 50
" 100 "	4 75

..Correspondence Invited..

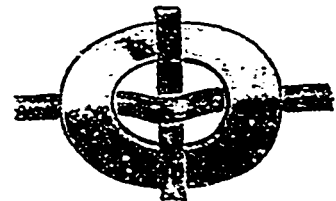
JOHN S. PEARCE & CO.
Manufacturers of Live Stock and Poultry Food
Supplies
LONDON. - ONT.

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.

The JONES LOCKED WIRE FENCE



is the best fence in the market. Also makers of Metallic Roofing and Siding. Write for catalogue and circular.

The Locked Wire Fence Co., Limited,
London, Ont.

**TORONTO
ENGRAVING
Co.**

THE ART ENGRAVING
HOUSE OF CANADA
CUTS BY ALL PROCESSES
**92 BAY ST.
TORONTO**

some. Select good advertising mediums and you are sure of good results.

The man who is afraid to risk money in advertising will never rise above the lowest round of the ladder of business.

Every successful business owes its prosperity to honest and persistent advertising, backed by honest treatment of the customers secured by it.

No great business that has dealt honestly with the public and persistently advertised as ever failed.

The great Canadian business houses, such as the Masseys, Wilkinsons, Maxwells, Eatons, Sims, and the other well-known firms who occupy a great share of public attention and patronage to-day had small beginnings, but their originators had faith in advertising and backed it up with money, courage and persistency.

Treat your customers with courtesy and scrupulous honesty. You can't expect a customer who has once got the worst of a bargain to deal with you again.

Make your advertising interesting. If you secure an interested audience you are sure to get good results. Our column for stock notes affords a splendid opportunity in this direction, and the advertiser who uses it discreetly never fails to obtain satisfactory returns.

Advertise in FARMING. It will give you better returns for the money invested than any other Canadian agricultural paper, because the rates charged are less in proportion to circulation than any other, and because it is the only paper devoting its whole space to the business interests of the farmer. If it is read therefore only by those who are interested in improving the condition and productiveness of their farms and the quality of their stock—not by boys and girls whose interest is kept alive by the puzzle department or a continued story. It is also the only weekly agricultural paper in Canada, and as such offers to the advertiser many obvious advantages which other papers cannot possibly give.

If you would get the benefit of the spring trade *advertise now*. Delay means loss of business. The man who freely uses advertising space during the next few weeks will secure the trade you will lose by your procrastination.

Watch the advertisements of the great Canadian and American business houses using the columns of FARMING. By following their example you will get the benefits of their experience.

The list of the business houses that constantly use the columns of FARMING includes all of the most successful manufacturing firms and the most experienced advertisers in Canada and the United States.

Publishers' Desk.

Freeman's Fertilizers.—Attention is called to the advertisement of The W. A. Freeman Co., Limited, of Hamilton, Ont., whose fertilizers have been in use by Canadian farmers, gardeners and horticulturists for a number of years, and have been favorably spoken of by all. Write them for information, prices, terms, etc., if you contemplate purchasing this class of goods.

Power for All Purposes.—Messrs. E. Leonard & Son, of London, Ont., one of the largest as well as one of the oldest manufacturing firms in Canada, are advertising their celebrated engines in this week's FARMING. This firm have established a continental reputation in their line of business and the output of their shops is everywhere recognized as being equal to the best productions of the best firms in the world. See their advertisement.

The Pioneer Seed House.—The long-established and reliable firm of seedmen, Messrs. John A. Bruce & Co., of Hamilton, Ont., send us their handsome illustrated catalogue of seeds for the farm and the vegetable and flower garden. It contains an extensive list of everything required by the agricultural and horticultural community with much information of a valuable character gained from an experience of half a century in Canada, theirs being the pioneer seed house of the Dominion. See their advertisement.

A TEST CASE

TO FIND OUT WHETHER FARMERS READ THIS PAPER OR NOT.

FOR ONE WEEK we quote you Redpath's Granulated Sugar \$4.45; No. 2 Granulated, \$4.25; Light Yellow Sugar, \$3.90 per 100 pounds; 300 lbs. in bbl. Granulated, 320 in bbl. Yellow. Kegs to hold 100 lbs., 20c. each; 2 gallon pail Honey Drip Syrup, \$1.00; 25 lb. box Boneless Fish, \$1.25; Dugby Herring, 100 in box, 10c.; 10 lbs. of our Tea as advertised at \$2.50, this week \$2.25 (either Japan, Black or Blended).

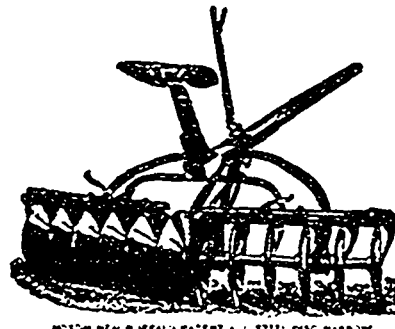
TERMS. Mention this paper and send cash with order F.O.B. Toronto. If you do not receive our Spring Circular and Seed List send for one. The FARMERS' CO-OPERATIVE STORE.

THE PEOPLE'S WHOLESALE SUPPLY CO.

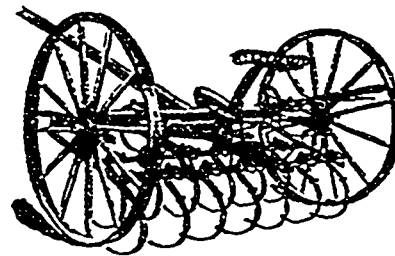
144-146 KING ST. EAST

TORONTO

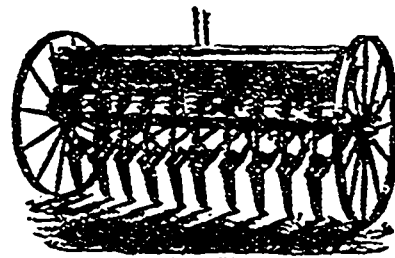
R. Y. MANNING, MANAGER.



NOXON NEW BUFFALO PATENT ALL STEEL DISC HARROW.



NOXON NO. 12 SECTIONAL SPRING TOUTH CULTIVATOR.



NOXON STEEL NUMBER DRILL.

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.

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 teeth le-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 is 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, Mowers, Rakes, Cultivators and Pulpers, as good as the best. Send for illustrated catalogue.

NOXON BROS. MFG. CO., (Limited)

Ingersoll, Ont., Canada.

FARMERS

There are many different styles of Rollers, weight from 600 to 1,200 lbs. The adjoining cut shows our up-to-date

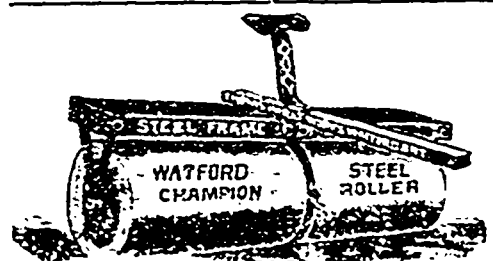
CHAMPION ROLLER

with special pattern of end so constructed as to prevent dirt from falling inside of drums.

All we ask is comparison. Your judgment will do the rest.

THOM'S IMPLEMENT WORKS

WATFORD - ONTARIO.



CHAMPION STEEL ROLLER

Weight about 1,200 lbs. Steel frame, removable bottom. Low hitch to prevent weight on horses' necks.

COLDSRING TAMWORTHS



Hoars fit for service; sows in pig and bred to order. Sept., Oct., and Dec. pigs of both sexes of the right bacon type, pairs and trios available. Am. bucking waders for spring pigs at the lowest prices.

NORMAN M. BLAIN

Coldspring Farm, St. George.

JERSEY COWS AND HEIFERS FOR SALE

Rich in St. Lambert blood at reasonable prices. Some heavy with calf. All registered in the A.J.C.C.

FOR FULL PARTICULARS

Address

J. J. KEATOR, Deseronto, Ont.

Shoemaker's Poultry Almanac.— We are pleased to find on our desk a copy of this very useful publication. The almanac itself is one of the most complete we have seen this year, and the information contained in the whole book is so conveniently arranged and so valuable that it is difficult to give any adequate idea of its merits within the limits of a short notice. It contains illustrated descriptions of all the different varieties of fowls, a treatise on the care and management of them and the treatment of the different diseases to which they are subject. Every poultry raiser should have a copy.

Evans' Seed Catalogue.— The seed catalogues for 1899 seem to be almost innumerable and of an order much superior to that of former years. One of the best of them is that of Messrs. Robt. Evans & Co., of Hamilton, Ont., which contains descriptions of a number of new varieties of seed. Evans' early potato is one of these and is described as a pure seedling of the Early Rose variety and consequently a thoroughbred. It has large, strong stalks, with luxuriant foliage, entirely covering the ground during the latter stages of growth and a tendency to conserve the moisture in the ground when most needed. The tubers are large and handsome in appearance. It is the heaviest cropping early potato ever grown in the grounds of its originator, while its flavor is unequalled and its flesh very mealy. It is said to yield seventy bushels per acre. Other novelties include the Early Six Weeks potato, Quick Crop potato; the new early wrinkled pea "Gradus." Those interested should send for a copy of this excellent catalogue, which will be mailed free of charge.

BACK NUMBER WANTED.

If any reader can supply us with a copy of the *Canadian Live Stock and Farm Journal* for September, 1893, we shall be greatly obliged if he will kindly send us his address.

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 #2056; 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.

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

H. & J. McKEE, Brookside Farm, Norwich, Ont.
H. Breeders Ayrshire Cattle Silver Grey Dorkings.

J. YUILL & SONS, Meadows Farm, Carleton Place, Ont., Breeders of Ayrshire Cattle, Shropshire Sheep, Berkshire Swine and Banded Plymouth Rocks.

LITTLE'S PATENT FLUID
NON-POISONOUS
SHEEP DIP AND CATTLE WASH

The Original Non-Poisonous Fluid Dip.

Still the Favorite Dip, as proved by the testimony of our Minister of Agriculture and other large Breeders.

FOR SHEEP
Kills Ticks, Maggots; Cures Scabs, Heals Old Sores, Wounds, etc., and greatly increases and improves growth of Wool.

CATTLE, HORSES, PIGS, Etc.
Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.
Prevents the attack of Warble Fly.

Heals Saddle Galls, Sore Shoulders, Ulcers etc. Keeps Animals Free from Infection

No Danger, Safe, Cheap, and Effective.

BEWARE OF IMITATIONS.

Sold in large tins at 75 Cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to Breeders, Ranchmen, and others requiring large quantities. Sold by all Druggists. Send for Pamphlet.

ROBERT WIGHTMAN, Druggist, Owen Sound,
Sole Agent for the Dominion.

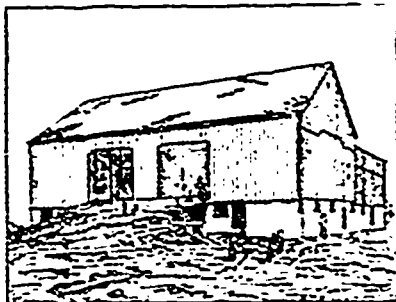
Two Prize-Winning Sows

FOR SALE.
Seven months old. Both in farrow to our stock boar, "Royal First," winner of first prize at the Royal Show in 1898 in a large class. Also young stock of both sexes.

A. ELLIOTT & SON,
GALT, ONT.

Established 1841. 53 Years in Use.
WORK DONE WITH

Thorold Cement
SPEAK FOR ITSELF



Made by ALLAN McMANE, Elma Township, Base-ment Walls, 8 1/2 x 10 x 9 feet high. Built with Thorold Hydraulic Cement.

ELMA TOWNSHIP, Nov. 15th, 1898.

It gives me much pleasure to testify to the excellence of your Thorold Hydraulic Cement for building purposes.

If I had stone on the ground I would not use it, as I much prefer a concrete wall built of your Thorold Cement and gravel.

During the past summer I erected a barn 84 feet by 100 feet, with basement walls 9 feet high. Your Thorold Hydraulic Cement was used in the erection of the said walls. I also put in floors with it for my horses and cattle. It has given splendid satisfaction, and I have no hesitation in recommending it to those who require to use Cement.

My walls and floors are here for inspection, lots 24 and 25, Elma Township. I strongly recommend your Thorold Cement to all farmers who intend building barn walls or putting in stable floors.

Yours respectfully,
ALLAN McMANE,
Atwood P.O., Perth Co., Ont.

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
THOROLD, ONT.
Mention this paper.

Cheap Seed AND GOOD

We can help you get them. Send 8 cents in stamps and receive four packages of home grown seed—Twins, new early cabbage; Potomac, the new tomato; Dirigo, the earliest beet. Quincy Market, the sweetest early corn, with our flower and vegetable soil catalogue, full of engravings. With one exception it is the largest vegetable catalogue published. Cut off one of the home grown labels, write in the name of this paper and it shall count as 25 cents toward any order amounting to \$1.00, excepting our special collections in which we offer 33 packages seed of choice vegetables for \$1.50, and 15 packages of selected flower seed, 40c.

J. J. H. GREGORY & SON,
MARBLEHEAD, MASS.

Patent Roller and Ball-Bearing Galvanized Steel

Wind Mills Towers and Flag Staffs

"Maple Leaf" Grain Grinders.

Iron and Spray Pumps.

Send for New Illustrated Catalogue.

GOLD SHAPLEY & MUIR CO. LIMITED
BRANTFORD CAN.

The Spramotor

The only way to prevent what's past is to put a stop to it before it happens, as Mrs. Partington would say. Many fruit-growers and farmers are induced to buy cheap sprayers, for one reason and another, and they always regret it.

Cheap sprayers are always in need of repairs, cheap sprayers are always made of iron or mostly iron, and iron sprayers are useless in copper mixtures. You would not use a cast-iron carving-knife, because it's unsuitable.

The only way to prevent this trouble is to put a stop to it before it happens, or at least before it happens again.

The SPRAMOTORS are the result of the best efforts of the brainiest manufacturers alive.

The SPRAMOTORS embody more good features than all others combined, and that is the reason of the great demand. It is not only necessary to have one good feature, but one to be in the front rank must have all the good features.

The SPRAMOTORS shoot mixtures stronger and even to an any, which fact has greatly increased their sales.

The SPRAMOTOR will last longer than any other, and is therefore economical to buy.

The SPRAMOTOR is made of brass, is the result of THREE PATENTS and others pending, is carefully made and less liable to need repairs.

Many times more SPRAMOTORS are used today in Canada than all others combined, which is one of the best arguments why you should buy one and be up with the procession. Nearly every first-class store in this country carry SPRAMOTORS in stock.

All the first-class rewers in Canada are using the SPRAMOTORS for whitewashing and disinfecting work.

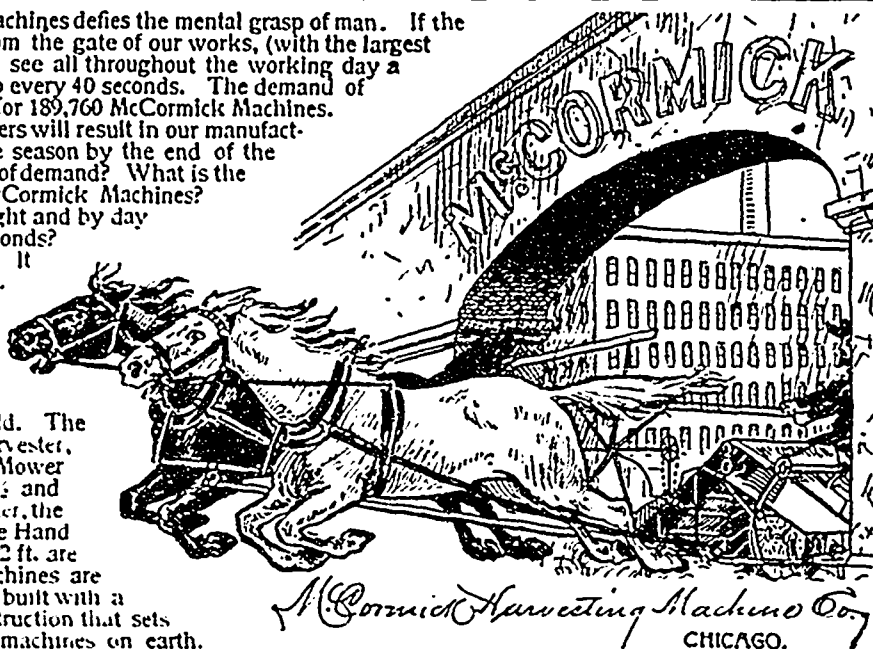
SPRAMOTORS are recognized as being the standard of the world, and they have proved it by EVERY TEST that a machine can be put to.

They cost from \$5.00 upward, and a catalogue will be mailed you on application.

SPRAMOTOR CO.
357 Richmond St., - London, Ont.

When replying to advertisements please mention **FARMING**

The enormous output of McCormick Machines defies the mental grasp of man. If the machines we manufacture were to issue from the gate of our works, (with the largest output in the world) the spectator would see all throughout the working day a McCormick Machine emerging at full gallop every 40 seconds. The demand of the farmers in the past season of 1898 was for 189,760 McCormick Machines. This continuing tremendous call of the farmers will result in our manufacturing and selling still larger numbers in one season by the end of the century. What is the cause of this unheard of demand? What is the reason of the everlasting popularity of McCormick Machines? Why are we forced to run our Works by night and by day up to the output of a machine every 40 seconds? The cause is plain. The answer is simple. It is The Building of the Best in the World. Almost seventy seasons of success have elapsed since Cyrus H. McCormick invented the Reaper in 1831. In all that time the McCormick has been The Best Built Machine in the World. The McCormick Machines for 1899 are The Best in the World. The McCormick Right Hand Self-binding Harvester, the New 4 Mower 4 1/2 and 5 ft. cut; the Big 4 Mower 6 ft. and 7 ft. cut; the One Horse Mower, 3 1/2 and 4 ft. cut; the Folding Dairy; the Corn Harvester, the Corn Husker and Fodder Shredder and the Hand and Self-dump Hay Rakes 8 ft., 10 ft. and 12 ft. are The Best in the World. All these eight machines are McCormick End of the Century machines; built with a brilliance of invention and honor in construction that sets a noble standard to all other agricultural machines on earth.



McCormick Harvester Machines Co. CHICAGO.

CHOICE AYRSHIRE BULLS

FROM IMPORTED STOCK.

We offer for sale Three (3) **HULL CALVES** from 9 to 13 months old, sire and dam imported, also 5 calves from 1 to 4 months, good individuals and from the very best milking strains obtainable in Scotland. **W. W. HALL ANTENE**, (formerly Thos. Ballantyne & Son) Stratford, Ont. Farm adjacent city, main line G.T.R.

Hermanville Tamworths

PIGS

Ready to wean.
1 Pig, \$10.00
2 Pigs, \$18.00
3 Pigs, \$25.00
Cross-breds
Half-price

Orders booked and filled as received.

Yorkshires Duroc-Jerseys Cross-breds

Every sow in the herd has either been a winner, produced a winner by a winner, or out of a winner. No other herd with such a record. Litters come in April, May and June. Orders now received. Address (P.O. on Farm), **HERMANVILLE FARM, P.E.I., Can.**

Golden Link Herd of Berkshires

I have the 1st-prize boar under 12 months at Toronto for sale, and 1st at Western Fair, also 2nd prize boar under 6 mos at Toronto. Have 4 first-class boars fit for service, 5 and 6 mos old. Have 2 of the sows for sale that tried for 1st of the three pigs bred from one sow, and the 2nd and 3rd prize sows under 6 mos. These winning sows are bred from Perfection, the unbeaten yearling. Have a few good sows bred for sale. Have 25 head of young pigs from 10 to 8 weeks. Am booking orders for March and April pigs.

T. A. COX, Brantford, Ont.

HENRY ARKELL, Arkell, Ont.

Importer and Breeder of **OXFORD-DOWN SHEEP**. Ewes in lamb to Royal Warwick and Imp. Hero 5th for sale. **PRICES REASONABLE.**

HICKORY HILL STOCK FARM



3 Ayrshire Bull Calves from dams that have won milk tests.

Great Bargains if sold before winter sets in. Write or come and see.

NAAMAN DYMENT, Clappison's Corners, Ont.

CHOICE AYRSHIRES AND POULTRY

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

JAS. MCCORMACK & SONS, ROCKETON, ONTARIO

CHOICE BERKSHIRES FOR FEBRUARY

2 good young BOARS 10 months old, weighing about 220 lbs each, at \$12. Must go to make room for young pigs. 4 fine SOWS, about same age, due to farrow in April and May. Bred to a grand young boar from imported Sire and Dam. Price \$18. Also fine lot of Boars and Sows 4 months old.

E. E. MARTIN, Paris Station, G.T.R. Canning P.O., Ont.

CHEAP CATTLE FEED

OAT DUST on hand, a good substitute for Bran or Shotts. Delivered at any station of the Grand Trunk or Canadian Pacific Railways. For Prices write to

JAMES WILSON, Monkland Mills, Fergus, Ont.

EGGS FOR HATCHING FROM

Barred Plymouth Rocks, Silver Wyandottes and S. C. W. Leghorns at \$1.00 per 13. Also Pekin and Rouen duck eggs at \$1.00 per 11. Four settings of any one or all varieties for \$3.00. Orders booked now. Satisfaction guaranteed. All hens are selected with a view to large egg production as well as quality.

W. R. GRAHAM, Belleville, Ont.

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.

SHIRE STALLION FOR SALE

Eight years old. Stand in green bands, 2000 lbs. Good constitution. Sure getter. Perfectly sound in every respect. **RIGHT EVERY WAY.** Duroc Jerseys also for sale—three and five months. Blood sows for sale.

JOHN SEMPLK, Box 73, Tottenham

Dorset Horned Sheep Wanted

150 Ewes, age two to four years old, with Lamb. Advise promptly, with full information concerning same.

W. D. GRANT, Newport, Herkimer Co., N. Y.

SITUATION WANTED

A competent man, thoroughly experienced in care and management of all kinds of live stock, desires situation as assistant on good stock and general farm. Was brought up on stock farm in Scotland, and has had four years' experience in Canada. Best of references given. Address, "STOCKMAN," care of FARMING, Toronto, Ont.

A. ELLIOTT, Pond Mills, Ont.

Emden Geese, Pekin Ducks, Bronze, White Holland and Narraganset Turkeys, Collie Dogs and Oxford Sheep. All of the best strains.

BIG MONEY FOR AGENTS THE STAR RIVETER



For MENDING HARNESS, BELTING, etc. Indispensable to farmers, livestock men, and Threshermen. **STAR RIVETER** complete with 50 lbs. Star rivets \$1.00. Best selling article ever introduced. Agents write for special prices and territory.

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

HOW TO START

In the **POULTRY BUSINESS** and how to make it a complete success is the theme of our **POULTRY GUIDE**. Tells all about poultry business, how to build, cost, etc., and how to breed, feed and market fowls. Treats also of the famous **CYPHERS INCUBATOR** which is delivered freight paid to every purchaser. This machine requires absolutely no artificial medium. Send 10 cents and get the book. Circulars FREE. **THE CYPHERS INCUBATOR CO. Box 69, WAYLAND, N.Y.**

WE TRUST THE PUBLIC



and send them our Incubator on trial. No man should buy an incubator and get for it before getting a trial. You pay not a cent for our trial you have given it a thorough trial. It's made so that nobody can fall with it. Acknowledge us with 50 cents attention daily. It beat all about World's Fair, Nashville and Omaha Expositions. The best catalogue and treatise on incubation published, send for 50 cents. Plans for brooders, poultry houses, etc., sent upon receipt of 25 cents. Von Cella Incubator Co. 30 Adams St. Delaware City, Del.

SHOEMAKER'S POULTRY BOOK ON

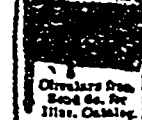


and Almanac for 1899. 160 pages. 100 illustrations of hens, incubators, brooders, poultry houses, etc. Tells how to raise chickens successfully, their care, diseases and remedies. Diagrams with full descriptions to build poultry houses. All about **INCUBATORS, BROODERS and FERTILITY**, with lowest prices. Price only 15c. **C. C. Shoemaker, Freeport, Ill., U.S.A.**



Incubators and Brooders, Self-Regulating. Special low price for first in any locality. Agents wanted everywhere. Eggs for hatching, by the hundred cheap. B. P. Rocks a specialty. Catalogue free. Address Geo. S. Singer, Cardington, O.

HATCH CHICKENS BY STEAM



with the simple, perfect, self-regulating **EXCELSIOR INCUBATOR**. Thousands in successful operation. Lowest priced in steam hatchery made. **GEO. H. STABLE, 114 to 128 S. 6th St., Quincy, Ill.**

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 list of stock for sale will be published on the 21st of February.

STOCK FOR MANITOEA.

Another car of purebred live stock will leave Ontario for Manitoba and the Northwest early in March. Parties wishing to send stock with this carload are requested to communicate with the Secretary of the Associations, F. W. Hodson, Parliament Buildings, Toronto.

ANNUAL MEETING OF THE DOMINION SHEEP BREEDERS' ASSOCIATION.

The annual meeting of the Dominion Sheep Breeders' Association convened in Shaftesbury Hall, on February 7th, 1898, the President, Mr. D. G. Hanmer, in the chair. The President's address, which will be printed at a later date, was delivered.

It was moved by D. McCrae, seconded by Wm. Linton, that it having come to our knowledge that certain parties have shipped stock fraudulently under our special privileges, we hereby request our directors to take such steps as may aid the railway companies to prevent such fraud in future and bring the guilty parties in the instance stated to justice.

The report of the Secretary was then presented. Acting upon the suggestion contained therein, it was moved by Wm. Linton, seconded by D. McCrae, that the executive officers of this association, namely, D. G. Hanmer, A. W. Smith, and F. W. Hodson, with power to add to their number, be the representatives from the Dominion Sheep Breeders' Association on the deputation from the various live stock associations to wait on the Ontario Cabinet, to lay before them a request for a grant of \$1,000, to be used for the purpose of extending our interprovincial trade in purebred live stock.

Other matters contained in the report were left in the hands of the directors.

After appointing the following officers and expert judges, the meeting adjourned.

OFFICERS FOR 1898.

President D. G. Hanmer, Burford.
Vice-President..... A. W. Smith, Maple Lodge.
Secretary-Treasurer... F. W. Hodson, Toronto.

DIRECTORS.

Cotswolds..... D. McCrae, Guelph.
Leicesters..... W. Whitelaw, Guelph.
Hampshires..... John Kelly, Shakespeare.
Dorsets..... R. H. Harding, Thorn-dale.
Southdowns..... John Jackson, Abing-don.
Oxfords..... Jas. Tolton, Walkerton.
Lincolns..... Wm. Oliver, Avon-bank.
Merinos..... W. M. Smith, Fairfield Plains.
Shropshires..... R. Gibson, Delaware.
Ontario Agricultural }
College..... G. E. Day, Guelph.
General Director..... J. C. Snell, London.
Auditor..... J. M. Duff, Guelph.

REPRESENTATIVES TO FAIR BOARDS.

Toronto Industrial.... F. W. Hodson, To-
ronto;
Jas. Russell, Richmond
Hill.
Ottawa..... Jos. Yuill, Carleton
Place.
Montreal..... H. D. Smith, Comp-
ton, Que.
London..... A. W. Smith, Maple
Lodge.
R. H. Harding, Thorn-
dale.

DELEGATES TO THE BOARD OF THE PROVINCIAL WINTER FAIR.

R. H. Harding..... Thorndale.
A. W. Smith..... Maple Lodge.
Jas. Tolton..... Walkerton.

EXPERT JUDGES.

Cotswolds.—Jas. Russell, Richmond Hill; Wm. Thompson, Uxbridge; Thos. Teasdale, Concord; D. McCrae, Guelph; H. Rawlings, Ravenswood; Val. Ficht, Oriel; J. C. Snell, London; T. Hardy Shore, Glanworth; Geo. Weeks, Glanworth; Wm. Ward, Uxbridge; W. G. Laidlaw, Wilton Grove; Wm. Rae, Arkell; Joseph Ward, Marsh Hill; John Park, Oriel; Jos. D. Davidson, Belhaven; A. Johnston, Greenwood; John Goodfellow, Maxville; Andrew Russell, Cartville; A. J. Watson, Castleberg.
Leicesters.—Jas. Gaunt, St. Helen's; Jno. Wells, Galt; Hardy Shore, Glanworth; Abraham Easton, Appleby; E. Wood, Ap-

pleby; Wm. Parkins, Eramosa; E. Parkinson, Eramosa; John Orr, Galt; Wm. Watt, Salem; Wm. McIntosh, Burgoyne; Thos. Currelly, Fullarton; R. Eastwood, Mimico; John Kelly, Shakespeare; Andrew Thompson, Fergus; J. K. Campbell, Palmerston; J. C. Snell, London; G. B. Armstrong, Teeswater; John Gibson, Denfield; C. E. Wood, Freeman; Jos. Gaunt, St. Helen's; J. M. Gardhouse, Highfield; John Laidlaw, Wilton Grove; Andrew Whitelaw, Guelph; Wm. Whitelaw, Guelph; R. C. Martin, Marysville; Alex. Smith, Maple Lodge; Alex. Waldie, Acton; Walter Nichol, Platts-ville; H. G. Arnold, Maidstone; Prof. Craig, Ames, Iowa; John Marshall, Cass City, Mich.; J. W. Murphy, Cass City, Mich.; Prof. Curtiss, Ames, Iowa; D. C. Graham, Cameron, Ill.

Dorsets.—John Jackson, Abingdon; J. G. Hanmer, Mt. Vernon; Richard Gibson, Delaware; W. H. Beattie, Wilton Grove; Prof. Curtiss, Ames, Iowa; Thos. W. Hector, Springfield-on-the-Credit; G. P. Everett, Mt. Vernon; Mortimer Levering, Lafayette, Ind.; Arthur Danks, Allamuchy, N.J.; Prof. Craig, Ames, Iowa; G. E. Day, Guelph; Jas. Tolton, Walkerton; H. N. Gibson, Delaware; R. H. Harding, Thorn-dale; M. A. Cooper, Washington, Penn.; J. E. Wing, Michamithburgh, O.

Southdowns.—John Miller, Markham; Wm. Martin, Binbrook; H. N. Gibson, Delaware; John Jackson, Abingdon; T. C. Douglas, Galt; Henry Arkell, Teeswater; W. H. Beattie, Wilton Grove; A. Simenton, Blackheath; Geo. L. Teller, Paris; J. G. Hanmer, Mt. Vernon; J. Scott, Aberfoyle; G. Baker, Simcoe; Jas. Smith, Mt. Vernon; H. B. Jeffs, Bond Head.

Oxfords.—Smith Evans, Gourcock; Jas. Tolton, Walkerton; R. J. Hine, Dutton; Kenneth Finlayson, Campbellton; Henry Arkell, Arkell; Wm. Dickison, Mildmay; Peter Arkell, Teeswater; Herbert Wright, Guelph; John Harcourt, St. Ann's; J. H. Jull, Mt. Vernon; Henry Arkell, Teeswater; John E. Cousins, Harriston; Arch. McKenzie, Corwhin; R. E. Birdsall, Birdsall; Geo. McKerrow, Madison, Wis.; W. A. Shafer, Middleton, O.; J. C. Williamson, Xenia, O.; J. V. Cooper, Picton; Wm. Newman, Cherry Valley; Wm. Arkell, Teeswater; Jas. L. Tolton, Walkerton; L. Parkinson, Greenock.

Hampshires and Suffolks.—Henry Arkell, Arkell; R. Gibson, Delaware; I. Hiller, Thorntown, Mich.; John I. Gordon, Mercer, Pa.; John A. Craig, Ames, Iowa.

Lincolns.—J. T. Gibson, Denfield; Wm. Oliver, Avonbank; E. Parkinson, Eramosa; T. E. Robson, Ilderton; G. Walker, Ilderton; John Geary, London; J. C. Snell, London; R. W. Stevens, Lambeth; L. Parkinson, Eramosa; T. Rolph, Ballymote; L. Goodwin, Munroe; John Mitchell, Glencoe; John White, Eramosa; Alex. Smith, Maple Lodge; Wm. Whiteaw, Guelph.

Mennos.—W. M. Smith, Fairfield Plains; R. Shaw, Glanford Station; W. H. Beattie, Wilton Grove; Rock Bailey, Union; Andrew Tirrell, Wooler; G. P. Everett, Mt. Vernon.

Shropshires.—R. Gibson, Delaware; G. P. Everett, Mt. Vernon; J. Conworth, Paris; W. H. Beattie, Wilton Grove; A. Brown, Picton; R. Miller, Brougham; I. Hanmer-Burford; Jas. McFarlane, Clinton; J. Campbell, Woodville; D. G. Hanmer, Burford; Jas. Phinn, Hespeler; M. Levering, Lafayette, Ind.; A. Elliott, Galt; J. Dickin, Milton West; J. S. Thompson, Gas City, Ind.; Geo. Allen, Allerton, Ill.; W. G. Pettit, Freeman; D. J. Campbell, Wood-

GAZETTE—Continued.

ville; G. Phinn, Hesperier; Chas. Calder, Brooklyn; H. N. Gibson, Delaware; Geo. Hindmarsh, Ailsa Craig; C. W. Gurney, Paris; W. E. Wright, Glanworth; J. Miller, Brougham; H. Hammer, Burford; Prof. Curtiss, Ames, Iowa; Prof. Craig, Ames, Iowa.

Judges for Toronto—Mortimer Levering, Lafayette, Ind.; Geo. Hindmarsh, Ailsa Craig; G. P. Everett, Mt. Vernon, substitute.

Judges for London—W. G. Pettit, Freeman; J. P. Phinn, Hesperier, substitute.

Judge for Ottawa—R. Gibson, Delaware.

Judge for Fat Stock Show—Prof. Curtiss, Ames, Iowa; Prof. Craig, Ames, Iowa, substitute.

The Board of Directors of the Dominion Sheep Breeders' Association convened in the Palmer House, Tuesday, February 7th, at 10 a.m. The suggestions contained in the report of the Secretary were given careful consideration. The meeting then adjourned to meet again at 5.30 p.m.

It was decided that section 1, "Ewe, one year and under two" be struck out, and prizes \$10, \$8, and \$4 be given in each purebred class for dressed carcasses. The association will offer to buy the carcasses after the close of the exhibition at the highest market price.

It was decided that ten per cent. be added to the prizes awarded to any exhibitor in the sheep department upon his furnishing the secretary within fourteen days after the exhibition particulars of a practical nature as to feeding and care of the sheep exhibited by him; the judges of the essays to be Dr. Jas. Mills, O. A. C., Guelph, and John I. Hobson, Guelph.

The directors advised that the dates for holding the show be the first full week in December, and that the time of holding the show be extended to four days.

The judges recommended for the sheep department are:

Shropshires, Southdowns, Dorsets and Merinos—Prof. C. F. Curtiss, Ames, Iowa.

Leicesters, Lincolns and Cotswolds—James Gault, St. Helen's.

Grades—Prof. John A. Craig, Ames, Iowa.

Oxfords, Suffolks and Hampshires—Geo. McKerrow, Sussex, Wis.

It was resolved that the printing and advertising be conducted on lines similar to those of last year.

THE DOMINION SWINE BREEDERS' ASSOCIATION.

A meeting of the directors of the Dominion Swine Breeders' Association was held in the Palmer House, February 8th, 1899, at 8 p.m., the president, Mr. Geo. Green, in the chair.

The secretary presented his annual report, which was adopted. It was decided, in order to develop a dressed poultry department, that two-thirds of the prizes to be awarded be offered by this association, the remainder to be paid out of the receipts of the show.

Messrs. Jos. Featherston, G. E. Day, and F. W. Hodson were appointed a committee to make full arrangements for conducting comparative swine experiments and to take full charge of the work, the experiments to be carried on along the lines laid down in the report of the secretary. Arrangements will be made with reliable farmers in Ontario to feed hogs along certain lines, and, when ready to kill, the packers have agreed to co-operate by paying the highest price for all hogs in the experiments, and also to make a report on the different carcasses. The object in view is to ascertain the cause of soft bacon. The Executive Committee, with power to add to their number, were appointed a committee from the Swine Breeders' Association to form part of a deputation to wait on the Ontario Cabinet to ask for a grant of \$1,000 for the purpose of extending the interprovincial trade in purebred live stock.

SWINE RECORDS.

It was unanimously decided that the secretary make arrangements to have two volumes of the swine records published this year, and that all members for 1899 be given the two volumes. This method will bring the pedigrees published up to date, i.e., the pedigrees published at the end of any year being those received during that year. Hereafter mem

"THE FAVORITE"



Patented, Roller Bearings, Steel Stand,
Combined Foot and Lever Drive;
The Easiest Driven, The Best Finished,
: : : The Most Durable.

BEFORE BUYING SEE IT.

DAVID MAXWELL & SONS

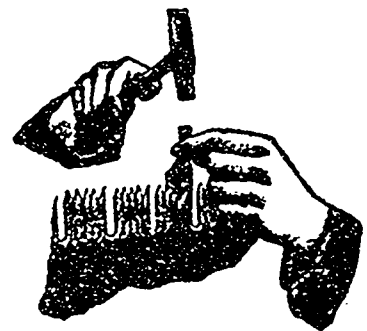
ST. MARYS, ONTARIO, CANADA.

THE RAZOR STEEL, SECRET TEMPER, CROSS-CUT SAW

WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than any process known. A saw to cut fast "must hold a keen cutting edge." This secret process of temper is known and used only by ourselves. These saws are elliptic ground thin back, requiring less set than any Saws now made, perfect temper from tooth to back. Now, we ask you, when you go to buy a Saw, to ask for the **MAPLE LEAF, RAZOR STEEL, SECRET TEMPER SAW**, and if you are told that some other saw is as good, ask your merchant to let you take them both home, and try them, and keep the one you like best. Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand. It does not pay to buy a Saw for one dollar less, and lose 25 cents per day in labor. Your saw must hold a keen edge to do a large day's work. Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.



Maple Leaf Saw Set



Directions.—Place the Set on the point of tooth as shown in the above cut, and strike a very light blow with a tack hammer. If you require more set, file the tooth with more bevel. If you follow directions you cannot make a mistake. Be sure and not strike too hard a blow, and it will set the hardest saw.

Manufactured only by **SHURLY & DIETRICH, Galt, Ont.**

WHEN WRITING TO ADVERTISERS PLEASE MENTION FARMING

GAZETTE—Continued.

ters of the Swine Breeders' Association will receive the volume of the record issued at the end of the year for which they have been a member, unless some other volume is specially asked for.

The directors also decided to increase the prizes of any exhibitor ten per cent. upon the same conditions as explained in the case of the sheep breeders' meeting. The entry fees for swine at the Provincial Fat Stock Show were raised to 75c. per entry. Barrows exhibiting in the purebred classes will not require to be recorded. All that is necessary will be to forward to the secretary of the show the pedigree of the animals on the regular application forms.

The judges appointed in the swine department are as follows:

Chester Whites, Poland Chinas, Duroc-Jerseys and Grades: Thos. Teasdale, Concord, and G. B. Hood, Guelph. Reserve, C. W. Yapp, Bradford.

Berkshires, York-hires, Suffolks and Essex, and Tamworths: W. H. Jones, Mt. Elgin, and R. H. Harding, Thorndale. Reserve, C. W. Yapp.

Sweepstake prizes to be awarded by the acting judges in both classes.

Bacon sections: Jas. Leach, of the Wm. Davies Packing Company, Toronto; Chester Fearman, Hamilton, and C. C. L. Wilson, Ingersoll.

The prizes in the purebred classes in the swine department will remain the same as last year. Following are the prizes for export bacon hogs:

Class 25—EXPORT BACON HOGS.

	1st.	2nd.	3rd.
2 Improved Berkshires.....	\$15	\$10	\$5
2 Improved Yorkshires.....	15	10	5
2 Tamworths.....	15	10	5
2 Chester Whites.....	15	10	5
2 Poland Chinas.....	15	10	5
2 Duroc-Jerseys.....	15	10	5
2 Suffolks or Essex.....	15	10	5
2 Grades or Crosses.....	15	10	5

Class 26—SWEEPSTAKE.

2 Best export bacon hogs, any breed.....	\$15	\$10	\$5
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Class 27.

Export bacon hogs, dressed, to be brought to the show alive, and killed the first or second day of the exhibition.

	1st.	2nd.	3rd.
2 Imp. Berkshires.....	\$20	\$15	\$10
2 Imp. York-h res.....	20	15	10
2 Tamworths.....	20	15	10
2 Chester Whites.....	20	15	10
2 Poland Chinas.....	20	15	10
2 Duroc Jerseys.....	20	15	10
2 Suffolks or Essex.....	20	15	10
2 Grades or Crosses.....	20	15	10

SWEEPSTAKE.

2 Best carcasses, any breed..	\$25	\$15	\$10
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THE DOMINION CATTLE BREEDERS ASSOCIATION.

The directors of the Dominion Cattle Breeders' Association convened in the Palmer House, Toronto, February 8th, at 10 a.m. The circular now being issued by the railway companies, which allows calves, sheep and swine to be penned off in one end of the car when being shipped in less than car-load lots of three or more, was presented for approval. It was decided that the secretary make such changes in the circular as he considered in the best interests of the breeders.

THE PROVINCIAL WINTER SHOW.

The Association decided to increase the prizes in the Cattle Department ten per cent, on conditions similar to those mentioned in the report of the Dominion Sheep Breeders' Association, the judges to be Dr. Jas. Mills and Mr. John I. Henson.

It was also decided that the Association recommend that the show hereafter be held during the first full week in December and continue for four days.

A WONDERFUL CHURN.

I have been in the dairy business all my life, and have many times churned for an hour before butter would appear, so when I heard of a churn that would churn in a minute I concluded to try it. Every day for a week I used it, and not only could I churn in a minute, but I got more and better butter than with the common churn. This is very important information to butter makers. The churn works easily and will churn an ordinary churning in less than sixty seconds. I have sold two dozen of these churns in the past month. Every butter maker that has seen me churn in less than a minute bought one. You can obtain all desired information regarding the churn by addressing Household Mfg. Co., Second and Locust Sts., St. Louis, Mo., and they will give you prompt and courteous attention. A DAIRYMAN

THE SEASON OF DOG SHOWS

and expo-ure is at hand. You don't want to lose your youngsters. With Spratt's new-style Condition Tablets and Distemper Cure you are safe. Send for full list of modernized medicines to Spratt's Patent, 239 to 245 East 56th St., New York. Manufacturers of all kinds of Dog and Poultry Supplies.

This month we draw attention to the following items of our big list of Poultry Supplies:—Ground Beef for winter feed, Cardiac (a tonic powder), Chick Meal for early youngsters. With the three above mentioned in stock you lose no birds.

SPRATT'S PATENT, Limited,

239 to 245 East 56th St., New York.

Manufacturers of all kinds of Dog and Poultry Supplies.

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.

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BRUCE'S SELECTED FARM SEEDS



The crop of a farmer who is more particular about quality than price buys our selected and re-cleaned Clover and Grass Seeds, which are sold at very moderate rates. Write for our special prices, stating quantity required.

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A change of seed invariably increases the product when a good article is procured. We offer carefully re-cleaned samples of Barley, Oats, Field Peas, Fodder Corn, etc.

ROOT SEEDS.

Our stocks of Field Carrots, Mangel Wurzels and Turnip seeds are carefully grown from transplanted bulbs by the most experienced growers in Britain and France; and the Farmers in British Columbia, Manitoba, and the Maritime Provinces make their

annual purchases of BRUCE'S SELECTED SEEDS with the same regularity as the agriculturists of Ontario and Quebec. Write for our Illustrated Seed Catalogue, which is mailed free.

JOHN A. BRUCE & CO., Seed Merchants, Hamilton, Ontario

\$25.00 Pumping Windmills

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Manure Now

Before the snow goes off, or at least before the mass of gravit water drains off the soil.

Observe this Rule in Using

ALBERTS'

Thomas-Phosphate Powder

or results may prove disappointing.

WALLACE & FRASER

58 Canada Life Building, TORONTO, ONT.

ST. JOHN, N.B.

GAZETTE—Continued.

In the dairy department it was decided that no cow over 36 months should be given first prize which is not at the time of the show producing at the rate of ten pounds of butter per week, nor a second or third prize unless producing at the rate of seven pounds of butter per week. Heifers under 36 months shall be producing at the rate of eight pounds of butter per week in order to obtain a first prize, and seven pounds of butter per week in order to obtain a second or third prize. The number of pounds of butter shall be worked out on an eighty per cent. basis.

The changes in the prize lists are as follows:

In class 1, for "Heifer, 2 year and under 3" and "Heifer, under 2 years," the prizes will be 1st, \$10; 2nd, \$8; 3rd, \$5.

In classes 2 and 3 for "Cow or Heifer, 3 years and over," the prizes will be 1st, \$15; 2nd, \$10; 3rd, \$5. Other prizes in the cattle department remain as last year.

In the dairy department all prizes will be 1st, \$20; 2nd, \$15; 3rd, \$10.

ANNUAL MEETING OF THE DOMINION CATTLE BREEDERS' ASSOCIATION.

The annual meeting of the Dominion Cattle Breeders' Association was held in Shaftesbury Hall, Toronto, on February 9th, 1899. The report of the secretary-treasurer was read and adopted, and instructions given to have it printed and distributed among the stockmen of the Dominion.

Messrs Arthur Johnston, Richard Gibson and Dr. Mills were appointed a committee from the Cattle Breeders' Association to form part of the deputation to wait on the Ontario Cabinet to ask for a grant of \$1,000 for the purpose of increasing the inter-provincial trade in purebred live stock.

The Executive with Mr. John A. McGillivray were appointed a committee to investigate the fraud in connection with reduced rates on shipments in carload lots of purebred stock to Manitoba; this committee will decide as to what steps should be taken in the matter so as to protect the interests of the associations and the railway companies.

It was moved by Richard Gibson, seconded by Jas. Russell, that we, the Dominion Cattle Breeders' Association, in annual meeting assembled, do hereby desire to impress upon the Dominion Government the desirability of allowing thoroughbred cattle to be imported without being subjected to the tuberculin test, and that the same order shall apply to cattle being imported from the United States, as soon as the United States authorities shall pass a similar order as regards Canada. Carried unanimously.

OFFICERS AND DIRECTORS.

- President..... John I. Hobson, Guelph.
- Vice-President..... H. D. Smith, Compton, Que.
- 2nd Vice-President.. Henry Wade, Toronto.
- Secretary-Treasurer.. F. W. Hodson, Toronto.
- Vice-Presidents (representing the different provinces):
- Ontario..... J. C. Snell, London.
- Manitoba..... Hon. Thos. Greenway, Winnipeg.
- Northwest Territories W. E. Cochrane, High River, Calgary, Alta.
- Quebec..... Robert Ness, Howick, Que.
- Nova Scotia..... W. W. Black, Amherst, N.S.
- New Brunswick..... T. A. Peters, Fredericton, N.B.
- Prince Edward Island.. Senator D. Ferguson, Charlottetown, P.E.I.
- British Columbia... A. C. Wells, Chilliwack, B.C.
- Newfoundland..... Hon. Thos. C. Duder, St. John's, Nfld.
- Auditor..... J. M. Duff, Guelph.
- Directors:
- Shortborns..... Arthur Johnston, Greenwood.
- Herefords..... Alf. Stone, Guelph.
- Polled Angus..... Jas. Bowman, Guelph.
- Galloways..... D. McCrae, Guelph.
- Ayrshires..... D. Drummond, Petite Cote, Montreal, Que.

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LITTLE DEMONS THAT DESTROY OUR CROPS



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 \$1.25 delivered by express.
 With Copper Reservoir Coats
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Evans' Electric Sprayer AND Bug Exterminator (Patented)

Is the Workman's Friend and the Insect's Enemy

It is invaluable for killing Bugs, Worms, Fungus, etc., on your Currants, Gooseberries, and other small fruit. For saving your Cucumber, Melon, Squash, and other vine crops. For insuring a bountiful crop and the choicest quality of Plums, Apples, Cherries, Peaches, etc. For protecting the beautiful Roses, Flowers, rubs, etc., growing on the lawn. For protecting the Potato Crop, and doubling the yield over what it would have been had the old methods been followed. For increasing the revenue from your cows by keeping the flies off. For increasing the egg production of your hens to the amount of 25 per cent. more by spraying themselves and houses so that no insects exist. For benefiting your herd of hogs by spraying them when needed, and which would otherwise be neglected. For spraying disinfectants about the premises to escape disease and save doctors' bills. Considering what this machine will do, no price is too high for it. Remember, every Sprayer is guaranteed to do all we say, or money returned.

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"Queen Churn"

It does not require a "crank" to work the Improved "QUEEN" CHURN. The easiest working Churn ever offered to the trade. A child can work it.

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GAZETTE—Continued.

Holsteins.....G. W. Clemons, St. George.
 Jerseys.....R. Gibson, Delaware.
 Guernseys.....W. E. Butler, Dereham Centre.
 Ontario Agl. College.G. E. Day. O. A. C., Guelph.

Representatives to Fair Boards:

Toronto Industrial..G. E. Day, Guelph, and J.M. Gardhouse, Highfield.
 Ottawa.....J. G. Clark, Ottawa, and H. D. Smith, Compton, Que.
 London.....R. Gibson, Delaware, and T. E. Robson, Ilderton.
 Brantford.....G. W. Clemons, St. George, and J. R. Alexander, Brantford.

Delegates to the Board of the Provincial Winter Fair: John I. Hobson, Guelph; G. W. Clemons, St. George; and Richard Gibson, Delaware.

THE PROVINCIAL WINTER SHOW.

A meeting of the directors of the Provincial Winter Show convened in the Palmer House, Toronto, Friday, February 10th, at 10 a.m. The delegates from the various live stock associations were as follows: Delegates from the Cattle Breeders' Association—John I. Hobson, Guelph; G. W. Clemons, St. George; Richard Gibson, Delaware. Sheep Breeders' Association R. H. Harding, Thorndale; A. W. Smith, Maple Lodge; Jas. Tolton, Walkerton; D. G. Hamner, Burford. Swine Breeders' Association—Geo. Green, Fairview; J. E. Brethour, Burford; G. B. Hood, Guelph. Butter and Cheese Association of Eastern Ontario—H. Wade, Toronto.

The officers, directors and committees for 1899 are as follows:

OFFICERS.

President, John I. Hobson, Guelph; vice-president, J. C. Snell, London; secretary-treasurer, F. W. Hodson, Toronto.

COMMITTEES.

Executive and Programme—President, vice-president, secretary, and Messrs. J. E. Brethour, Burford; Jas. Tolton, Walkerton; H. Wade, Toronto; G. W. Clemons, St. George.

Committee on Cattle—John I. Hobson, G. W. Clemons, Richard Gibson.

Committee on Sheep—R. H. Harding, A. W. Smith, Jas. Tolton.

Committee on Swine—G. B. Hood, J. E. Brethour, Geo. Green.

Dairy Committee—G. E. Day, Guelph; H. Wade, G. W. Clemons, R. G. Murphy, Elgin; Daniel Drummond, Petite Cote, Montreal, Que.

Poultry Committee—J. E. Meyer, Kosuth; Robert H. Essex, Toronto.

Reception Committee—John I. Hobson, J. C. Snell, Arthur Johnston, Henry Wade, and F. W. Hodson.

Superintendent of Building—D. G. Hamner, Burford.

Official Reporter—G. W. Green, Toronto.

Judges in the cattle department—Thos. Crawford, M.P.P., Toronto; James Smith, Brantford. Reserve, T. O. Robson, St. Mary's. Referee, J. T. Gibson, Denfield.

Judge in charge of the dairy test—G. E. Day, Guelph.

Judges for conformation—D. Drummond, Petite Cote, Montreal, Que.; and A. C. Hallman, New Dundee.

Judges in the sheep department—Judges nominated by the Sheep Breeders' Association were confirmed, and in each case a reserve judge was added. Prof. J. H. Grisdale, Ottawa, was appointed a reserve judge for Leicesters, Lincolns, and Cotswolds, and also for Grades; Henry Arkell, Treswater, reserve judge for Shropshires, Southdowns, Horned Dorsets, and Merinos, also for Oxfords, Hampshires and Suffolks.

The judges recommended by the Swine Breeders' Association were confirmed.

It was decided that the show be held on the 5th, 6th, 7th and 8th of December. The

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.

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

FARMERS WANTED

To take orders in their section for the famous land renewer,

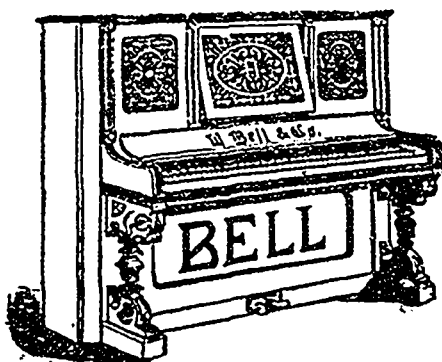
Alberts' Thomas-Phosphate Powder (Reg.)

Purity and analysis guaranteed. Correspond at once, as fall dressing of the land is important.

WALLACE & FRASER

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ORGANS from \$40 upwards
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Only the best material used. All others are rejected
 On Reasonable Terms from all Agents
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Best Job

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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!

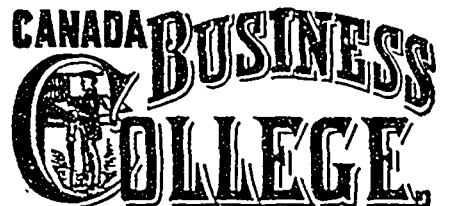


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W. J. ELLIOTT, Principal.

HAMILTON



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Patchall

WILL REPAIR

Rubber Goods	Cloth Goods
Rubber Coats	Blinder Canvas
Rubber Boots	Grain Bags
Rubber Overshoes	Mall Bags
Half Solo Rubbers	Your Pants

PATCHALL will not do impossible things. It will not make a worn out garment new, nor mend one run over by a railway train, but it will mend all as stated above, and nothing less. Eight patches, 3 inches square, for a cent. If you can not obtain it from your hardware dealer, send 25 cents and we will mail a can to your address, prepaid. Manufactured by

DOMESTIC SPECIALTY CO.

Hamilton, Ont., Canada.

GAZETTE—Continued.

hours at which stock will be required to be on hand and the hours at which they will be allowed to leave, are left in the hands of the Executive.

Moved by James Tolton, seconded by J. E. Braithwaite, that \$50 for advertising be divided between the *Farmer's Advocate*, FARMING, and the *Weekly Sun*.

It was decided on motion, that the place for holding the show should not be decided at this meeting, but that applications should be received by the secretary. The president and secretary should be a committee to visit the places making application, with a view to ascertain facilities of such places. If thought wise by the president and secretary, the board of directors shall be called together for the purpose of selecting a place. If the president and secretary do not consider it necessary the board will not be called together, but shall receive full particulars from the secretary by letter.

The rules and regulations and prize list as amended by the various associations were accepted. It was also decided that it will not be necessary hereafter to record weathers, they being subject to the same conditions as barrows. These conditions are set forth in the report of the Swine Breeders' meeting.

The rules and regulations and the prize list for the poultry department were left in the hands of the poultry committee. The passenger rates were left in the hands of the executive.

The financial statement of the secretary-treasurer was presented and accepted, after which the meeting adjourned.

INSTITUTE MEETINGS.

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

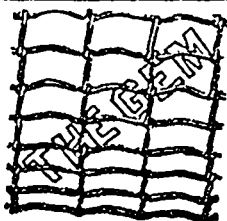
Addington	56
Algoma, Centre	31
Brant, South	52
Cornwall	108
Glengarry	113
Grey, South	196
Hastings, East	86
Lanark, North	179
Manitowin, East	77
Middlesex, West	78
Stormont	86
Waterloo, South	141

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

Addington	9
Algoma, Centre	107
Brant, South	25
Cornwall	13
Glengarry	127
Grey, South	29
Hastings, East	36
Lanark, North	183
Lanark, South	67
Middlesex, East	1
Middlesex, West	64
Muskoka, Centre	14
Simcoe, South	61
Stormont	30
Victoria, East	36
Victoria, West	46
Waterloo, South	43

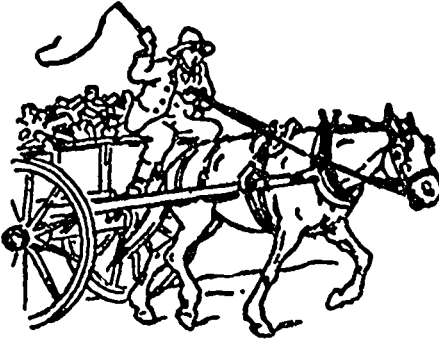
NOTICE TO SECRETARIES.

When sending in copies of papers read at Institute meetings, secretaries are requested to write on the back thereof the name of the writer and the name of the Institute. Owing to the large number of papers received we find it difficult to keep track of them if this is not done, therefore, an Institute may sometimes not receive the credit due on account of the papers not having the name of the writer, the name of the secretary nor the name of the Institute written on them.



FENCE MACHINE
Sill at the front!
Not only the cheapest, but fastest and best.
Price \$5 00.
Highest grade WIRE
Coiled and other WIRE
for sale. Write for particulars. Agents Wanted.
McGregor, Banwell & Co., Windsor, Ont.

Prevention of Cruelty to Horses.



Many a poor horse, utterly run down by impoverishment of blood and its accompanying ills, is blamed for laziness and harshly treated. The use of

DICK'S BLOOD PURIFIER

would strengthen such an one, would fortify him to endure fatigue; enable him to accomplish work

without loss of tissue and make him a cheerful, willing worker. It pays to use Dick's Blood Purifier. It greatly increases the flow and richness of a cow's milk.

60 CENTS A PACKAGE. TRIAL SIZE 25 CENTS.

LEEMING, MILES & CO., Agents, Montreal. DICK & CO., Proprietors.

AGENTS WANTED

Send for our cash prize and premium lists. It will pay you. Address

FARMING,

44-46 Richmond St. W., Toronto

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CHAMPION AND BURGLAR-PROOF

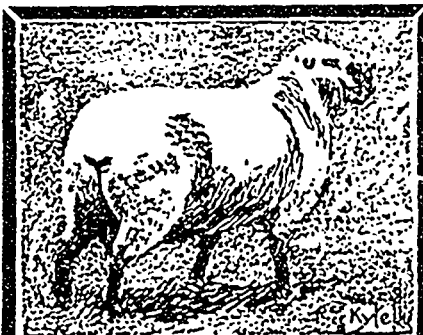
Everyone wants a good safe. We make them in all sizes and at prices to suit the times. Sixteen years' trial have proved that ours are second to none.

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577 Craig Street

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Persianic 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
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- SHEAR CUTS
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- WOUNDS
- RINGWORM
- BRUISES, ETO., ETO.
- 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 Pickhart Renfrew Co.

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A New Importation of

CLYDESDALE STALLIONS

Arrived Oct. 31, 1898

The largest importation of the breed made in five years, and 50 per cent of them Scottish prize-winners. A few choice HACKNEYS for sale. Address

Alex. Galbraith,
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FREEMAN'S Double Strength

FERTILIZERS

GREAT REDUCTION

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BUY

Coleman's Salt

THE BEST

For Dairy or Table Use

IT IS UNEQUALLED.

Salt on the Farm

for wire worm, joint worm, army worm and all insects that destroy crops. Salt is the best insecticide. It is also a fertilizer.

TRY IT.

R. & J. Ransford,

CLINTON, ONT

MARKET REVIEW AND FORECAST.

Office of FARMING,

44 and 46 Richmond street west,
Toronto, Feb. 13, 1899.

The improved condition of general trade still continues and everything seems to lead to the conclusion that we are on the up trend commercially speaking. With few exceptions the paper maturing on the 4th of the month was well met and the coming year is looked forward to as being a most prosperous one.

Wheat.

The wheat situation has not changed very materially during the week. The world's supply of wheat in sight shows an increase of 2,961,000 bushels since January 1st. It is now estimated that Argentina will have about 54,000,000 bushels of wheat to export. She has been shipping more lately. It is now definitely settled that the recent rise and fall in the market was entirely due to speculation, and it is a pity that trade in so staple an article as wheat cannot be carried on along more legitimate lines. This speculative element only unsettles the market and makes producers loth to sell and purchasers afraid to buy. The leading European and American markets were dull and flat during the early part of the week, but towards the last were firmer and stronger, and June delivery at Chicago went up two cents. On Saturday the Chicago market dropped a cent.

Prices for Ontario wheat are considered at Montreal to be too high for export. Millers were said to be paying 68½ to 69c. for Ontario wheat early in the week, while exporters would only bid 67½c. Manitoba wheat is quoted at 69½ to 70c. Fort William; in the interior of Manitoba, the price is from 53 to 57½c., as to location. The offerings here have been small, though the market is steadier at 68½ to 69½c. for red and white west. Goose is quoted at 69 to 69½c., No. 1 Manitoba hard at 81 to 82c., and No. 1 Northern at 78½c. Toronto. On the local market red and white is quoted at 72 to 72½c.; fire at 70½ to 73½c., and goose at 68½c.

Oats and Barley.

The London market for oats is reported dull owing to increased supplies. The Montreal market rules quiet but steady at 32 to 32½c. for car lots in store. There is an improved demand for oatmeal and millers have advanced prices a little higher than exporters can afford. The market here is steady at 29 to 29½c. west. On the local market here oats are quoted at 35½c.

The quotations for malt barley at Montreal are 55 to 57c. as to quality. The market here is quiet at 46 to 47c. west. On the local market here barley is quoted at 49 to 50c.

Peas and Corn.

The London market for Canadian peas is firm and stocks are light. The Montreal market is quiet but steady at 71 to 72c. in store. The market here is firm at 64 to 67c. The quotation on the local market is 64c.

Several car loads of No. 2 American corn are reported sold at Montreal for the Eastern townships at 46 to 47c. American is quoted on track here at 41½ to 42c. and Canadian yellow west at 36c., but it is hard to get.

Bran and Shorts.

Ontario bran at Montreal is quoted at \$14.75 to \$15. Quite a lot of it is being taken by the Americans. Shorts in car lots are quoted at \$15.50 to \$16. City mills here quote bran at \$14, and shorts at \$16 in car lots f.o.b. Toronto.

Clover and Timothy Seeds.

The Montreal market for timothy seed is steady at \$1.60 to \$1.75 for Ontario, and \$1.25 to \$1.50 for American. Red clover is quoted at \$4.25 to \$5, and Alsike at \$4 to \$5 as to quality. Mammoth clover is scarce at \$4.50 to \$4.75. On the local market there

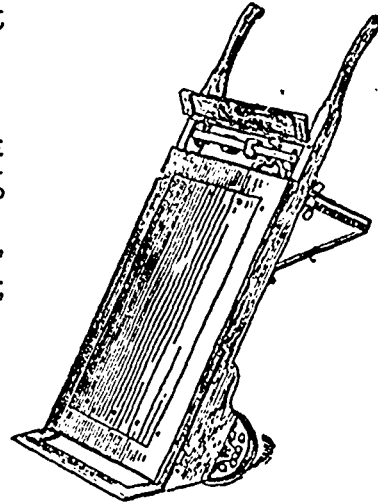
Every Merchant and Farmer

Should Own a

Parsell Truck SCALE
combining a first-class warehouse truck with a fine 800 Canadian Standard Scale.

It has "caught on" splendidly, and is going like "hot cakes."

WILL SAVE ITS COST IN NO TIME.



For descriptive circular and full information, address

THE ST. MARYS TRUCK SCALE CO.

St. Marys, Ont.

red clover is quoted at \$3.50 to \$3.90, white at \$6 to \$9, Alsike \$3 to \$4.40, and timothy at \$1.25 to \$1.35 per bushel.

Eggs and Poultry.

The *Trade Bulletin's* cable of February 9th reads: "The steadier feeling cabled last week has been emphasized by a firmer market, the demand having been stimulated by low prices. There is a good demand for Canadian eggs in Glasgow, where prices are in holders' favor." New-laid eggs have been arriving a little more freely at Montreal and values have weakened, sales having been made at 18½ to 20c. in lots and single cases. The market here is about steady at 19 to 21c., with a fair supply. Held stock is quoted all the way from 14 to 18c., on the local farmers' market new-laid bring from 22 to 25c.

Choice fresh killed turkeys at Montreal are quoted at 10½ to 11c.; chickens at 9½ to 10c.; ducks 8 to 9c., and geese at 6 to 7c. There is a good demand here for turkeys at 10 to 11c. per lb. for fresh killed, and 7 to 8c. for frozen; 6 to 7c. per lb. for geese, chickens 35 to 60c., and ducks 50 to 70c. per pair.

Potatoes.

Owing to more liberal supplies at Montreal potatoes have declined from 2 to 2½c. per bag, and are now quoted at 55c. in car lots. Prices by the load are 65c., and by the single bag 75c. Potatoes are in fair demand here, and cars on track are quoted at 60 to 65c., and out of store at 70c. per bag; 65 to 75c. are the ruling prices on the local market here.

Fruit.

Apples at Montreal are quoted all the way from \$3 to \$4.50 per barrel. On the local market here they bring from \$1.50 to \$2.50 per barrel.

Hay and Straw.

A big trade might be done in the export hay trade if farmers would sell at present prices. The Montreal market is steady at the low prices ruling. Baled clover hay is quoted there at about \$3.50, and No. 2 timothy at \$6 to \$6.25. The market here is quiet at \$7 to \$7.50 for cars on track. Baled straw is quoted at \$4 to \$4.50. On the local market timothy is quoted at \$8.50 to \$10; clover at \$6 to \$7.50; straw in sheaf, \$6 to \$7; and straw, loose, a \$4 to \$5.

Cheese.

The British markets remain quiet, but firm, with buyers resisting the tendency to advance by keeping their purchases down to a minimum. Receipts have been fairly liberal. The Montreal market remains quiet, and holders are accepting slightly lower prices in order to work off their supplies. Sales have been made during the week at 9¼ to 9½c., for which a quarter of a cent more could have been got a few weeks ago. Some finest western sold at 9¼ to 9½c. Still the market holds steady,

and it is thought that the lowest prices have been reached. The total shipments from Montreal and New York from May 1st, 1898, to the present time, show a falling off of 575,750 boxes as compared with the same period a year ago.

Butter.

The *Trade Bulletin's* London Cable of Feb. 9th reads thus: "Considering the fairly liberal supplies from the Antipodes of late the market has kept up remarkably well. The consumption has been large throughout the season, and accumulations at various times have been marked off with astonishing ease. Even in the face of a certain slump in prices, time and again the steady consumptive demand has come to the rescue of holders. Finest Canadian creamery, 96s. to 98s.; fancy parcels, 100c. to 102s. Under-grades of creamery, 88s. to 94s." The export demand continues good at Montreal and sales have been made during the week at 19¼ to 20c. for choice, fresh creamery butter in boxes, and at 19¼ to 19½c. in tubs. Sales of earlier make are reported at 17½ to 19c. as to quality. The total shipments from Montreal and New York from May 1st to the present time show an increase of 18,023 packages as compared with the same period a year ago. Two weeks ago these shipments showed a decrease of 11,531 packages. The large increase of the past two weeks is due to the large shipments from New York, which are unusual for this season of the year. There is a fair demand in Montreal for Western dairy, which is quoted from 14½ to 15c.

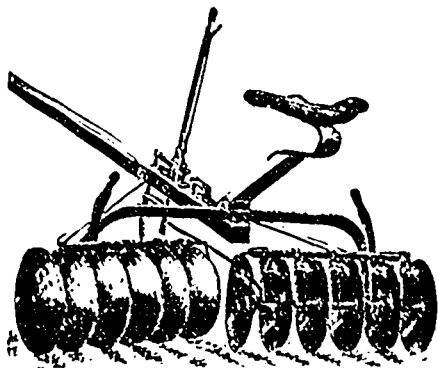
The creamery market is steady here, with quotations 20 to 21c. for prints, and 19 to 20c. for tubs. There is a fair demand for dairy with moderate supplies. Choice to medium tubs are quoted at from 11 to 15c.; rolls, 15 to 16c.; and large rolls, 14 to 15c. On the local market pound rolls bring from 15 to 21c., and large rolls 13 to 16c.

Cattle.

The cattle situation is about the same. Prices have been fairly well sustained in western markets. The run of live stock on the market here has not been so large as a week ago. The quality of the fat cattle offered on Friday was only middling, there not being enough of the good class to supply the demand. Trade was fairly brisk in all the different classes.

Export Cattle.—There were not many straight loads of these offered, the bulk of fat cattle coming as mixed lots. Choice heavy export cattle sold at \$4.50 to \$4.75, and light ones at \$4.30 to \$4.50. A few choice lots of heavy exporters brought from 10 to 20c. per cwt. more. Choice heavy export bulls bring from \$3.60 to \$4, and light ones \$3.25 to \$3.50 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing from 1,000 to 1,150 each, bring from \$4.10 to \$4.30 per cwt. Good butchers'



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cattle bring from \$3.75 to \$3.90, medium from \$3.25 to \$3.60, and lower grades from \$2.75 to \$3.25 per cwt.

Stockers and Feeders.—The demand for stockers is good, with prices ranging from \$3.40 to \$3.65 for medium to good, and \$3.70 to \$3.75 for choice, well-bred steers. A few stock beefers, weighing about 500 each, sold on Friday at \$2.60 to \$2.85 per cwt. Choice heavy feeders, weighing from 1,000 to 1,150 lbs. each, are in good demand, selling from \$3.80 to \$4.05 for choice steers.

Calves.—These are a little higher at Buffalo. On this market they bring from \$3 to \$8 each, and \$5.50 per cwt. for choice heavy veals.

Milk Cows.—These bring from \$25 to \$42 each.

Sheep and Lambs.

The western markets have been fairly active with higher prices for lambs in some places. Choice to extra lambs at Buffalo are quoted at \$5.15 to \$5.25, and sheep at \$4.25 to \$4.40. About 500 sheep and yearling lambs were offered on this market on Friday, ewes selling at \$3 to \$3.25 per cwt., and bucks at \$2.50 to \$2.75. Yearling lambs, weighing 100 lbs. and over, for export purposes bring from \$4.25 to \$4.50 per cwt.

Hogs.

Prices are higher for choice, select bacon hogs, weighing from 160 to 200 lbs., which bring from \$4.75 to \$4.50 per cwt. off cars. Light hogs sell at \$4 to \$4.25, and thick fats of all kinds at \$3.87 1/2 per cwt. The Montreal market is firmer and higher, nice light bacon hogs selling for \$4.75 per cwt. The English market for Canadian bacon has taken a decidedly better turn, prices having advanced 3s. during the week.

The old long-horned breed of cattle are fast disappearing from the fields of England. They make good beef, and the cows are good milkers. They are handsome and picturesque with their long heavy horns; nevertheless they are gradually disappearing. Recently two yearling bulls of this breed were sent to Buenos Ayres to propagate the race in that distant land.

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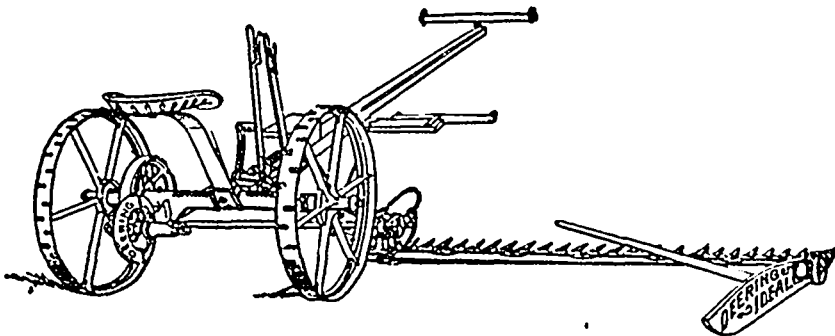
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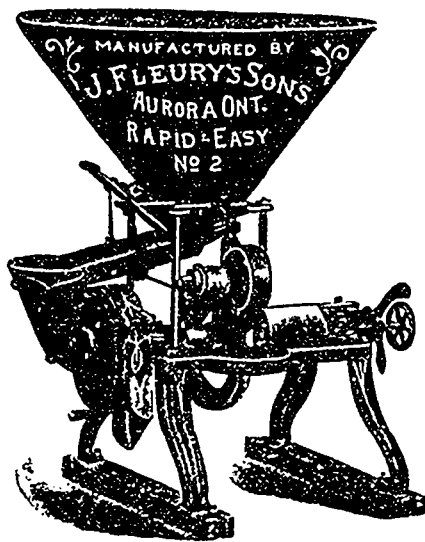
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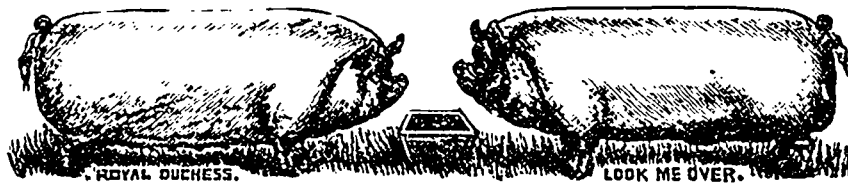
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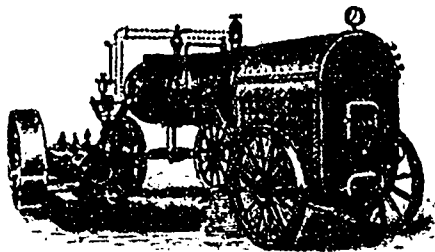
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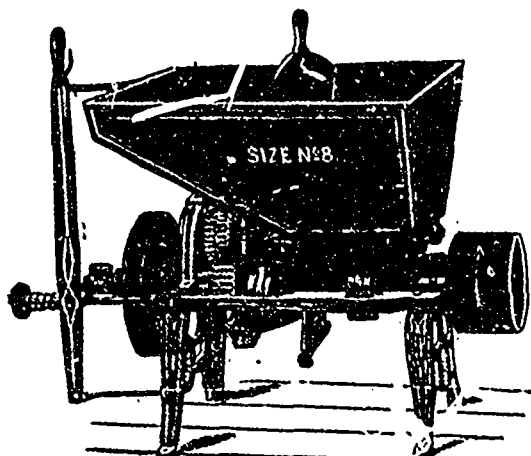
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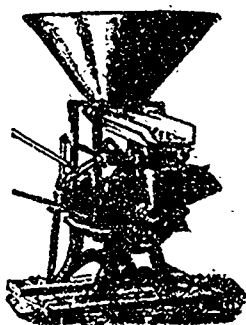
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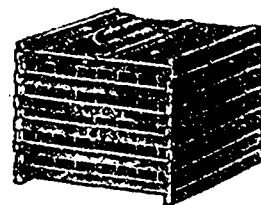


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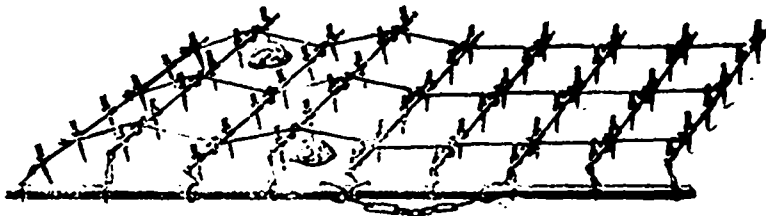
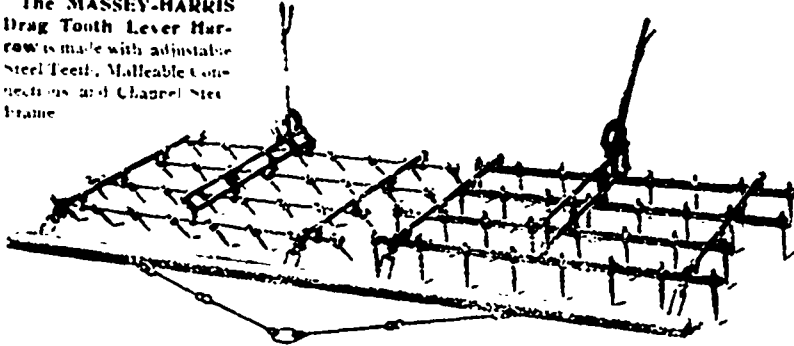
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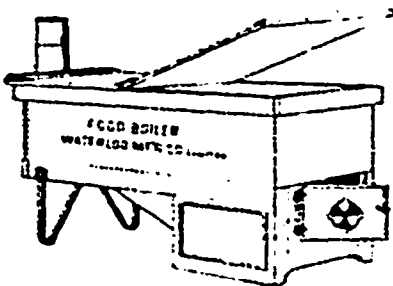


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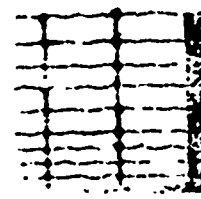
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