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FARMING

April 11th, 1899.

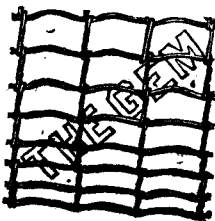
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Township of Grantham, 90 acres, Fruit, Dairy and Grain farm, close to the City of St. Catharines; rich soil, well watered, fronting main road to Niagara; Electric Cars; Frame House and Barns.

Township of Manvers—120 acres, nearly all cultivated; spring water and wells; rich soil; Frame Dwellings and Barns; good orchard. Five miles to railway station.

Township of Whitchurch—100 acres, nearly all cultivated; spring creek; rich soil; Frame House and Barns; orchard; four miles to Aurora station, G.T. Railway. Apply to

MILNER HART, 103 Bay St., Toronto.



FENCE MACHINE

Still 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.

Trade Mark Reg'd

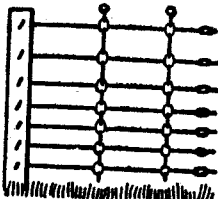


LUMP JAW NOW CURABLE.

Surely, quickly and for good, FLEMING BROS., Chemists, St. George, Ont., have a remedy that quickly cures the most obstinate cases. Supplied by mail under a positive guarantee. Price, \$2.00. Valuable information and full particulars FREE.

Fence Machine Free

With 100 Rods. Gold Stem-Wind Watch Free.

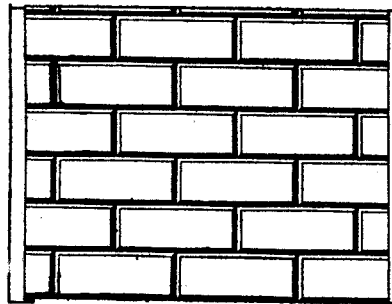


To introduce Diamond Grip Fence in new localities. Don't have to wind wires around each other (like old woven fences), as cross wires are gripped and protected from weather; can never slip or break; 5 times as strong and lasts 10 times as long, as any woven wire fence made; can use coiled spring, plain,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



CANADA FENCE CO., London, Ont.

Have you used our Sheet Steel Pressed Brick?



It is the most economical and durable covering you can find for almost any kind of building.

It keeps out the cold—is fire-proof—most easy to apply—and gives a very fine appearance.

Not expensive, but reliable.

Write us about it before you build.

METALLIC ROOFING CO., Limited,
1192 KING STREET WEST, TORONTO.

Horse Owners! Use GOMBAULT'S

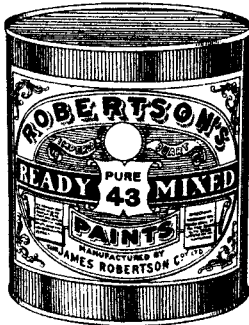


Caustic Balsam

A Safe Speedy and Positive Cure

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

THE LAWRENCE-WILLIAMS CO., TORONTO



DON'T make a mistake **BUT** ask your Dealer for **ROBERTSON'S** the Best **PAINTS** in the Market

THE JAMES ROBERTSON CO., Limited
The Paint Makers..... TORONTO

THE OLDEST ESTABLISHED FLOCK OF
OXFORD-DOWN SHEEP IN CANADA.
Animals of all ages and both sexes for sale at all
times. Reasonable.
HENRY ARKELL, Arkell P.O., Ont.

OXFORD DOWNS
For Sale

Good Shearling Ram and
some fine Rams and Lwe
Lambs; also some good
young Yorkshire Sows and
Boars. Some good young
Heifers in Calf for sale.
John Cousins & Sons,
Harriston, Ont.



ANOTHER IMPORTATION

OF SHROPSHIREs and other breeds next July.
Choice rams and ewes getting ready for customers.
Orders now taken for imported or home-breds.
Barred Plymouth Rock Eggs
a. 13 for \$1.00, or 20 for \$1.50
Price: cocks and selected hens in breeding yards.
JOHN CAMPBELL,
Fairview Farm,
Woodville, Ont., Can.

OXFORD DOWNS

For Sale.—A fine
lot of ram and ewe
lambs, bred from im-
ported sire and dams.
Prices to suit times.
SMITH EVANS
Gourcock, Ont.
Breeder and Importer



MAPLE LANE FARM
One mile north
of Claremont,
on C.P.R.

Gotswolds Twenty good ram
lambs, shearing and
two-shear, at farmers' prices. Some excellent shearing
ewes, bred to our best studs.
Berkshire Sows ready to breed. Boars fit for service.
Twenty Plymouth Rock Cockerels, choice.

O. T. GARBUTT, Box 13, Claremont, Ont.

TELFER & SONS, Paris, Ont., Breeders and
Importers of reg. Southdown Sheep. For sale.

JAS. P. PHIN, The Grange, Hespeler, Ont., breed-
ing and importing Shropshire Sheep a specialty.

JNO. A. MCGILLIVRAY, Q.C., Jerseyville Farm,
Uxbridge, Ont., Breeder and Importer of Dorset
Horned Sheep, Jersey Cattle, and Tamworth Pigs.

HOME of the CHESTER WHITES

Boars, fit for service; Sows, ready
to breed; Young Stock from
home-bred and imported stock, at
prices to suit the times. Pairs
furnished not skinned. Eggs from
the following: B. Langshans,
P. Cochins, Barred and White
P. Rocks, S. G. Dorkins, G. L.
Wyandottes, Br. Leghorns, Cor-
nish Indian, Black, Red and Pit
Games, \$1.00 per 13; Pekin,
Rouen and Aylesbury Ducks, \$1.00 per 9.
G. BENNETT & PARDO, Charing Cross, Ont.

Hermanville Tamworths

PIGS
Ready to wean.
1 Pig, \$10.00
2 Pigs, \$18.00
3 Pigs, \$25.00
Express Prepaid.
Grand bacon stock.
"Parkhill Mab 1," "Parkhill
Mab 11," "Parkhill Mab
111," and "Princess" are due
to farrow in May and June.
These pigs you may have at
these prices if your express
office is east of Lake Huron.
Cash to accompany orders. No
after charges. Satisfaction or
no pay. TAMWORTHS, non-
clivile, and CROSS-BREDS
also delivered here at two-thirds
above prices.
Address HERMANVILLE FARM, P.E.I., CAN

Chester Whites

Some grand lengthy young sows in-farrow.
Prices right. All o spring pigs. All from im-
ported stock.
JOSEPH CAIRNS,
Camlachie, Ont.

Berkshires

In my herd there is such blood as BARON LEE,
DORSET CHIEFTAIN and WINDSOR
SUPREME and other noted strains. Choice stock
for sale at reasonable prices. Write for particulars.

GEORGE N. HARRIS
LYNDEN ONT.

Large English Berkshires.

BOARS for Serv'ce
sows in Farrow, and
Young Stock, both sexes.
Special reduction in prices
for April and May
Mention FARMING.
O. R. DEOKER, Chesterfield, Ont.

ENGLISH BERKSHIRES

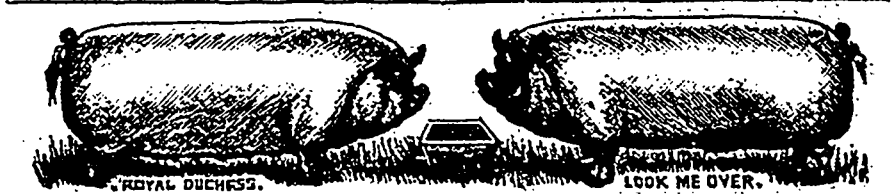
My herd won 306 prizes, 11 diplomas, and 5 medals
since 1888. Choice stock of all ages for sale.
GEORGE GREEN, FAIRVIEW, ONT.
Stratford Station and Telegraph Office.

COLDSRING TAMWORTHS

Boars 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
not skinned. Am booking orders for spring pigs at the
lowest prices.
NORMAN M. BLAIN
Coldspring Farm, St. George.

Wm. Butler & Son

Dereham Centre, Ont.



Summer Hill Herd of Yorkshire Hogs—Large Lengthy English Type—Among them being
the undefeated prize-winning boar "LOOK ME OVER"
—2002—acknowledged to be as good as any if not the best of his kind on the continent of America to-day. Also
"ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with
a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not skinned.
Also choice young sows bred to "Look Me Over." We ship to order, prepay express charges, guarantee
stock as described.

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

.. HIGHEST TYPE OF BACON HOGS..

Oak Lodge Herd of Large Yorkshires



The Largest Herd of Pure-Bred Yorkshire
in America.
This herd has won the best prizes offered for the
breed during the last ten years. Only one boar
kept, but the choicest of its kind. Three im-
ported stock boars and several sows that have all
been winners at the largest shows in England, also
winners at prominent Canadian and United States
shows. Pigs of all ages for sale.
J. E. BRETHOUR, Barford, Ont.

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.

CHOICE BERKSHIRES FOR FEBRUARY

2 good young BOARS, 10 months old, weighing
about 220 lbs. each, at \$18. Must go to make room
for young pigs. 4 choice 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.

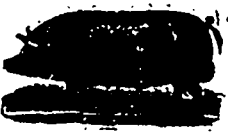
**Oxford
Herd
of
Poland
Chinas**

Choice stock of either
sex and all sizes, from
2 months up. Bred from
the best strains known
to the breeder.
Write for prices.
W. & H. JONES
Mt. Elgin, Ont

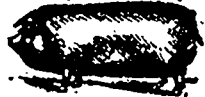
The
Home
of
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Winners

MWORTH AND CHESTER WHITE BOARS

Fit for Service
SOWS ready to
breed; and a choice
lot of FALL PIGs
now ready to ship,
at rock-bottom
Prices, from the weep-
stake herd at Toronto
Montreal, London and
Ottawa Exhibitions, 1897. We pay express
charges to your station, and guarantee safe
arrival of all stock shipped. Pairs furnished not as in
Drop a card before buying elsewhere.
H. GEORGE & SON
Crampton, Ont.



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



FARMING

VOL. XVI.

APRIL 11th, 1899

No. 32

More Orders Than He Could Fill

To the Editor of FARMING:

I advertised M. B. turkeys in FARMING some-time ago, with the best results. I had enquiries from ocean to ocean, and more orders than I could fill.

ARTHUR FISHER.

Chatham, Ont., March 29th, 1899.

Agricultural News and Comments

Formalin made by heating wood alcohol vapor in a current of air is a powerful disinfectant and preservative.

Exporters are finding Eastern States buyers strong competitors for the heavy draft horses in the West. An extensive American shipper says we will never see horses as low again.

In 1896 Manitoba exported to Great Britain 9,729,000 bushels of wheat, valued at \$5,677,000, in 1897, 7,717,000 bushels, valued at \$5,477,000, and in 1898, 18,091,000 bushels, valued at \$16,477,000.

Figuring on the basis of the census of 1890, the value in 1896 of all the gold, silver, wool and sheep in the United States was \$220,000,000, while the earnings of the poultry for the same year were \$290,000,000.

A well-known American writer and farmer says. "I believe life on the farm to be the ideal, and that if the farmer lives up to his privileges he can enjoy more comforts and luxuries than any other man of the same means." And is this not a fact that many people living on farms fail to realize?

The export of cattle from Argentina to all countries in 1898 numbered 238,121, of which 89,368 were received in the United Kingdom. These animals are valued at barely £6 in Argentina, while those sent to England are valued there at £15 a head. The exports of sheep numbered 585,358, of which 430,075 were sent to Great Britain.

Cases frequently occur in the United States where packers pay more per cwt. for a beef animal, freight, shrinkage, etc. included, than what the carcass of the animal is sold for, and it often is a matter of wonder how they can do this. The reason for this is that they utilize every particle of the by-products. These little things are where the profit comes in.

British wagon horses consist of but three kinds really of importance, viz., Shires and Suffolks of England and Clydesdales of Scotland. Shires seem to be becoming more popular every year. The reasons for this increased popularity are said to be the improvement brought about by the establishment of the stud book, the interest gentlemen and wealthy people have taken in breeding these Shires and the fact that such horses are much in demand for work both at home and abroad.

The exports of flour from Manitoba in 1896 were 186,716 bbls., valued at \$718,400; in 1897, 421,758 bbls., valued at \$1,540,000, and in 1898, 1,250,000 bbls., valued at \$5,425,000. The largest increase of these sales was to Great Britain. This marked increase in flour exports indicates what may be done in this line. If the bulk of the wheat grown in Canada could be converted

into flour at home and the bran and shorts left here for feeding purposes the country would be much more benefited than in shipping the whole wheat.

Inter-Provincial Trade

Considerable attention has been given in these columns of late to this important subject. Recently, however, a new phase of the subject was brought to our notice in a very forcible way. One of our subscribers in Prince Edward Island, wishing to take advantage of our seed grain premium offer for new subscribers, ordered a bushel of New Zealand oats which was sent him through Messrs. Jno. S. Pearce & Co., London, Ont. The actual freight charge paid for sending this bushel of oats from London, Ont., to Breadalbane, P.E.I., was \$1.18, a charge that seems to us to be a very exorbitant one. The oats referred to are of special quality and bring a special price, but the rate charged was in no way affected by the price of the oats. If only thirty cents, which is about the regular price, had been paid for this bushel of oats the freight charge would have been the same and would have made the cost of the bushel of oats when it arrived in P.E.I. from Ontario \$1.48 per bushel.

This is a condition of affairs that seems somewhat absurd when we consider the distance which this bushel of oats had to travel. There is surely room for good work, not only on the part of our live stock associations, but of the other agricultural organizations of the Dominion, in endeavoring to secure better transportation rates on all products interchanged between the various provinces of this country.

Canadian Poultry in Great Britain

Last fall Messrs. Joseph Yuill & Sons, Carleton Place, Ont., fattened a number of chickens, under the directions of the Dominion Department of Agriculture, for shipment to Great Britain, an account of which was given by Messrs. Yuill in FARMING for December 6th last. These chickens were shipped to Mr. James Ruddin, Liverpool, and proved so satisfactory that he has written Messrs. Yuill & Sons in very complimentary terms regarding the consignment. The latter have very kindly sent us a copy of the letter, which is dated March 2nd, 1898, for publication and from which we take the following:

The whole transaction was so completely successful and satisfactory in every particular that I am loth to let time pass without venturing to enquire as to your intentions in regard to the export to England of your fattened poultry. Being the first to handle your stock I would hope to continue to do so; being sure that no one in England could offer you the same facilities, service and interest that I can command.

Anticipating, therefore, that you will be inclined to favor me with your consignments, I take this early opportunity of encouraging you to extensive operations in poultry for the coming season. You need have no fear as to the ultimate results. Only turn your poultry out in the same order and condition as you did the experimental lot and I will see that profits will accrue.

I am confident that I can create a large trade for Canadian poultry if I am able to secure responsible and reliable feeders and packers like yourselves. The business will need co-operation of a willing and intelligent order. The trade will then be readily established, and it will only be the packer's fault if he does not maintain his position and hold the business.

I might say that the English market receives poultry from every country in Europe as well as from Australia and New Zealand. I can state, however, without the slightest fear of contradiction, that the Canadian poultry has no competitor, and, therefore, no competitor on equal terms. For not only is the Canadian poultry superior as to

quality and suitability, but its condition is always assured through the services of the refrigerator.

I hope to call on you in June or July. Meanwhile I hope to hear from you at your convenience.

I beg to remain,
Yours truly,
JAMES RUDDIN.

Ontario Agricultural College Report

The report of the Ontario Agricultural College for 1908, just received, contains a fund of practical information of value to every farmer in the country. While the work carried on by every department of the college is equally valuable to those specially interested, there are two or three departments deserving of more than passing mention at this time. The experimental work carried on by the Dairy Department in regard to curing-rooms and curing cheese is of special value to dairymen. The experiments in swine feeding carried on by the agriculturist during the past two years make the report of great value to those producing hogs for the export bacon trade, and the growing and testing of seed grain by the experimentalist gives it additional value at this season of the year.

Aside from the practical information which the report contains, there is one feature of it to which we would like to direct special attention. There have been complaints made, both in the Legislature and out of it, that too much money is being expended annually upon the college. Dr. Mills, in the beginning of his report, gives some figures showing the amounts of money expended annually in maintaining some of the agricultural colleges in the United States. The annual expenditure for the Wisconsin Agricultural College, apart from the erection of buildings, is \$60,000, and the annual amount of salaries paid \$28,000; for the Iowa Agricultural and Mechanical College, apart from buildings \$100,000, and the annual salary bill \$50,000; and for the Michigan Agricultural and Mechanical College \$108,812, apart from buildings, and \$42,426 on yearly salary account. When these figures are compared with the total amount annually expended in maintaining the Ontario Agricultural College, it will be seen that the people of this province are getting just as effective work done at a very much less outlay. When a state like Iowa or Michigan can spend annually \$150,000 in maintaining its agricultural college surely a province like Ontario could afford to expend a little more than \$51,267 (the appropriation for the current year) on the maintenance of an institution which is being operated in the interest of the largest portion of our population. Dr. Mills states that \$20,000 is needed for immediate outlay on buildings and equipment and an addition of nearly \$3,000 for annual maintenance expenditure, which seems to be a very modest request indeed, considering the value and importance of the college to the agricultural interests. The interest and attendance at the college has greatly increased during the past few years, and the institution has now reached a stage where expansion and enlargement are necessary, and it would be a suicidal policy for the sake of saving a few thousand dollars to the country not to put every department in a shape that would admit of the most effective and beneficial work being done.

Manures and Manuring

By T. C. Wallace, before the Ontario Farmers' Institutes

(Continued from last issue.)

FARMYARD MANURE.

Farmyard manure we depend largely upon to return us a part of the fertility our crops and animals remove. Its value must not be underrated, but at the same time it is suicidal to our interests to close our eyes to any deficiency in it. By the dung and liquid waste of our animals we get most of the nitrogen we feed and most of the potash. The solid portion of the dung is the undigested, or only partially digested, material from which the animal extracted what it

could. It contains then the unused nitrogen potash and phosphates. The liquid portions contain the daily waste of the system. What really entered the system and formed blood was taken in a liquid condition and is, of course, thrown off only in a similar state. The phosphoric acid absorbed by the animal never returns in excrement. It enters into the bone of the animal. It gives nerve force and induces ripening of the flesh, and never comes back to us in the shape of manure. The straw used as litter gives us most of the potash of the grain plant and considerable nitrogen, but none, or practically none, of the phosphate, because plants, like animals, use it for their ripening strength. While then, as I said before, stock-keeping is a better condition of affairs, yet it has not so far proved an ideal one in the way of bringing up and keeping up fertility. But how do we usually care for this manure, and do we use it so as to make the most out of it? Usually it is kept in heaps in the barnyard or the field. The straw as it goes into the heap is certainly not in a condition of plant food until rotted, but as the process of decomposition develops acids which might be of great value to us in liberating the locked-up elements of our soils, it appears a pity to carry on this forceful action in the heap instead of in the soil. I consider rotting straw in the heap wasteful, for this reason: The dung soon warms up in the heap, and in a few days a lively action of

DENITRIFICATION BEGINS,

which, in a comparatively short time, entirely liberates or changes the nitrogen so that it is less valuable, gets washed out, or, forming gases, escapes to the atmosphere again. It is in the warmth, moisture and darkness of the manure heap that this serious loss goes on, and in a month or two we have only the nitrates developed in the straw for our lands. This is a serious loss, for nitrogen is the principal money value of our manure. This manure has cost us money in some form, and to so waste it is equal to allowing our hard-earned dollars to run out of a hole in our pockets. Here, then, is a leak which every effort must be made to stop. To some extent the use of land-plaster in the stable, strewn daily in the gutters, will help to prevent this loss. It is not a complete cure, however; but it seems to help. In fact, anything which will induce dryness in the heap will assist. But if we spread the manure on our fields immediately, no loss occurs. The sun does not waste the manure, it only takes water from it and dries it. Also, in the sunlight, the microbes do not develop and work destruction. This is a labor-saving operation, and the labor saved will be well spent in cutting the straw for bedding. But is there no other reason for spreading the manure as soon as made? Most of the manure made at the barn is produced in the fall, winter and early spring. If we consider that the readily available part of the manure, the dung, is in a state of very fine subdivision we can readily see how the gravity water of the soils, present during those seasons only, can assist in distribution of this manure much more perfectly than any machine we can devise. This is an important reason for fall, winter and early spring manuring, and should not be lost sight of.

(To be continued.)

Economy in Fuel in Cheese and Butter Factories

Paper read by E. Agur, Brownsville, Ont., before the Cheese and Butter-Makers' Convention at Listowel.

Our cheese and butter factories of the present time cannot be operated without the steam boiler. The boiler is constantly in use during the cheese season, which is closely followed by the butter season, which continues in many factories all winter.

A boiler under constant work should be carefully looked after in order to prevent heavy bills for fuel and repairs. The fuel bills in our average cheese and butter factories are 25 per cent. higher than necessary. Now, what does

that mean? In order to make it plain and illustrate the object of economy in fuel, I will underestimate the number of cheese and butter factories in the province of Ontario, and say there are 1,000. Now each of these 1,000 factories on an average will burn 100 cords of wood in a year, and I will put the price of this wood at \$1 per cord. Let us now see what this means in round figures. Each factory burns 100 cords, 25 per cent. of 100 cords, which at \$1 per cord, equals \$25 saved in each factory. And as I have put the number of factories at 1,000, and we can save \$25 on each, or in other words, \$25,000 annually goes up the smoke stacks of our cheese and butter factories.

Can this enormous waste of fuel be prevented? I say yes, simply by keeping the boiler in first-class working order; this means considerable. You must be thorough in the details, keep the boiler clean inside and out, clean out the flues twice per week, start the fire slowly by keeping about half of the draught shut off and never force the fire with full draught turned on, as that means a rapid consumption of the fuel in proportion to the amount of steam generated. Start the fire early enough to raise steam with a slow draught to, say, 80 lbs. pressure before you require to use the steam for any purpose. You will find the steam very dry at 80 to 100 lbs., which gives it much more power for heating vats or for using it through an engine. Keep all steam joints perfectly tight, allow no leaks about the boiler pipes or stems of the steam valves, and carry 80 to 90 lbs. of steam, which means economy in fuel, as at this pressure steam will make very rapidly, which calls for a good working safety valve set to blow off at 100 lbs. Keep the brick-work tight, allowing no holes or cracks, or else the cold air will kill the effects of the fire. Should the brick-work become cracked or holes in it, get a little mortar or clay and plaster them up. Don't allow any cold air to enter any place about the boiler but up through the fire, and keep the grates well covered while making steam. Keep the draughts closed at all times only when you require steam.

Now just a word about the man in charge of the boiler and engine and then I am done. He will require skill along his line of work just as much as a cheese and butter-maker requires skill along his, and if he proves a success as a fireman and takes pride in his work, keeps his boiler and engine clean, he will be a man worth having. In fact he requires to be an engineer as well as a fireman, as our cheese and butter factories have so much costly machinery, which needs careful attention from some particular person; and the man who is capable of filling this position is worth as much wages per month to the owner of the cheese and butter factory as a first-class cheese or butter-maker is. Where it can be done, I believe in letting the butter-maker look over his butter and the engineer his fire and machinery. As to the economy in fuel there is no secret about it. You must understand your work and be able to give the boiler the advantage of the work, provide plenty of dry wood, use good common sense, and the boiler will do the rest.

The Care of Milk

Paper Read by W. A. Bothwell, Hickson, at the Cheese and Butter-Makers' Convention

In the advanced stage of dairying to which we in Ontario have arrived, the care of the milk to be supplied to the cheese factories possibly stands first in importance in the matter of producing a fine product. Certainly without pure, untainted milk to begin with we cannot have a fine quality of cheese or butter. In years gone, by when dairymen kept a fewer number of cows and these during the dairy season were fed on nothing but the native grasses, a much purer quality of milk was produced than is now delivered at our factories. But now, when the herds are larger and when the milk flow is increased by various foods, some of which produce objectionable flavors, the dairymen must exercise greater care with the milk product.

Canada is a dairying country. But to make the most of our dairy, we must produce the best possible results in the

quality of the article manufactured. We have to engage in competition with other countries and there will be little money in the industry for us if we have to take a second place. The Government is providing dairy schools that the makers may not lack in efficiency. They have now provided cold storage facilities that the product may not suffer in transportation and that it may reach the market in the best possible condition. It now rests with the dairymen—the farmers of this country—to give the industry the proper start. Surely a business that brings annually into the pockets of the farmers of this country nearly \$17,000,000 is worthy of their earnest consideration.

Immediately after the milk is drawn it should be well stirred and aired until all the animal heat has gone out of it, when it should be put in a sheltered, airy place free from all bad odors. This is within the reach of all as no costly appliances are required, nothing but care.

A FEW DON'T'S.

Do not keep the milk in cellars as this often gives it a musty old flavor.

Don't keep it in large quantities over night.

Don't put it in large quantities over night.

Don't put it in cold water until all the animal heat has been driven off and not then unless in extremely hot weather or when it is to be kept over Sunday.

Not only do many kinds of food give the milk objectionable flavors, but impure water is a common source of this evil. Too much stress cannot be laid upon the matter of providing pure drinking water for the herd. Cows will not drink bad water if good is at hand, and it should be considered nothing less than a crime to allow them to drink from stagnant pools or drains when it is possible to obtain better. These bad flavors lessen the value of our product from one to two cents per pound and in the majority of cases the blame rests entirely with the patron. He has entire control of the milk before it reaches the maker.

Now, I wish to say here that this is one of the points that every maker must look after, and see to it that the patrons do properly care for the milk. Don't hesitate to refuse it if it be not in good condition. You cannot afford to run the risk of using inferior milk. The best is none too good. A few cans of bad milk will spoil a whole day's output, and means a serious loss, not only to the factory, but also to the maker. It costs as much to haul poor milk as good; the same to manufacture; so by all means let us have it good. If we find a patron is not caring for his milk as he should, then, in justice to the factory, in justice to ourselves, we must see him and endeavor to find out where the trouble is, and by all fair means seek to have it removed. If we are unable to go and see him we should write him or send him word in some way. But be careful here, as this is a touchy point. It is all right if the patron is approached in a proper way, but liable to give us trouble if we do not proceed judiciously. We must be at one with our patrons. "Let there be unity and harmony," is an oft repeated saying, but in no case is it more applicable than in this one.

I believe there is a bright future ahead for Canada in the dairy industry. Here is an industry that will bring her more wealth than Rossland, or even the Klondike, if those engaged in it exercised the proper energy and care.

Cranberry Culture

At the annual meeting of the P. E. I. Fruit Growers' Association, held at Charlottetown on March 21st, this subject was discussed, and our regular correspondent on the island sends us the following regarding it: Mr. C. R. Dickie, Muddy Creek, gave his experience with cranberries, of which the following is a synopsis. Some years ago, while clearing some land, I discovered a patch of cranberries. Not knowing the value of it, I prepared the land for a crop of oats. When the oats were reaped the vines were so healthy that I concluded there was something in them, and so I fenced the patch. In a few years a quart was

picked. The year following I gathered two bushels, the next year seven, and the following twenty bushels. I then began exhibiting my fruit at the exhibitions, where I carried off prizes. There are several varieties, but mine is the Cherry Bell, which takes well in the English market. The land for planting cranberries should be worked up and sanded, the sand to be from three to six inches deep, then irrigating is important, in fact, is essential, to cranberry growing. The land should always be kept damp. Before the frost comes the patch should be flooded, and kept so until the first of May. They do not thrive well when exposed to the winter's frost. If a long spell of dry weather takes place in the summer irrigating should be repeated. When you get your land in this shape you are in a position to do something that will yield you an immense profit. J. J. White, a United States man, raised 15,000 bushels the last year, which, at \$2 per bushel, netted him \$30,000. Two others had grown 20,000 and 25,000 bushels respectively. If we were to put all our waste swamp to cranberry growing it would be a great source of wealth to the province. Swamps are not the only place to grow them, they could be grown equally successful in the valleys.

I realized \$300 net for what I grew on one acre last year. I would like to know if there is anything else you could put an acre that would bring the same returns.

To a question, sanding will correct all weeds. As to prices, I realized 10s. to 13s. for mine in the English market, while others only received 9s. to 11s. I ship in boxes, and the expense amounts to about 7c. per box. It costs 70c. per box for freight around by Montreal, but should be very materially reduced now, as we have direct steam communication. I have now 15 acres under cultivation, and all my neighbors have taken up the cultivation, although they laughed at me when I started to cultivate mine. I can recommend the cultivation of cranberries as a profitable business from the experience I have had.

The Composition and Use of Cattle Foods

By W. H. Jordan, Director N.Y. State Experiment Station

(Continued from March 23th.)

THE ACTUAL COMBINING OF AN ECONOMICAL RATION.

A ration, as generally understood, is the total quantity of a mixture of foods which is to be fed to an animal in one day. In order that such ration may be economical it is necessary that the foods be so combined as to secure for a given quantity of food a maximum nutritive effect and the foods must be so selected with reference to market prices as to purchase the proper combinations at the least cost. In other words, we need to secure the maximum efficiency for the least money. Some times these two factors conflict. The prices of commercial feeds may be such as to render it relatively expensive to combine the most efficient ration. A ration of less than maximum efficiency might, under some circumstances, be more economical, either because the home supply of foods makes it undesirable to purchase others or because of the high price of a certain class of foods.

The most efficient rations are those which are secured by combining two classes of foods, the carbohydrate class and the protein class. The carbohydrate class consists chiefly of those foods produced on the farm, such as the hays, straws, and the cereal grains. The protein foods are as a rule those found in the markets, such as the oil meals, gluten feeds and meals, brewery residues, and bran and middlings from the various cereals, such as rye and wheat.

Farmers should aim to produce all the carbohydrate foods they need, and they should select from commercial foods those which, after considering composition and cost, will most cheaply supplement the home supply, manurial value being given due consideration. One ration may be

as efficient as another and yet cost much less. Here are two rations which illustrate this fact:

No. 1.	No. 2.
30 lbs. silage,	30 lbs. silage,
10 lbs. hay,	10 lbs. hay,
4 lbs. ground oats,	4 lbs. wheat middlings,
4 lbs. linseed meal,	2 lbs. dried malt sprouts,
	2 lbs. high grade gluten meal.

There is little doubt but that for most purposes ration No. 2 is as efficient and desirable as ration No. 1, and at the present time it can be supplied for nearly three cents less. During some portions of the year three cents is the price of nearly two quarts of milk, and, with a herd of twenty cows, quite a saving would be effected by using ration No. 2. Farmers should study the composition and ruling prices of commercial feeds.

Rations for specific purposes.—Inquiries are often made for a ration that will either produce milk rich in fat, or that will produce a large quantity of milk without regard to quality. No one is wise enough at present to combine mixtures having these different effects. The evidence of all previous practice and experimental work is, that the quality of a cow's product is chiefly due to her individual or breed characteristics. So far, no way has been discovered by which it is possible to produce marked and persistent variations in the food. A dairyman must feed his animals to increase the quantity of milk if he wishes to increase the quantity of butter or cheese.

The quantity of the ration.—This should be adapted to the capacity of the animal. Many cows cannot be made to produce enough to pay for heavy feeding. The writer believes that there has been a tendency in some quarters to feed beyond the point of economy and of health.

A properly combined ration of 30 lbs. of the best silage, 10 lbs. of hay and 8 lbs. of grain is as large as most cows will consume with maximum profit. A small minority may utilize more with increased profit, but many cows could be more economically fed with less.

(PER DAY AND PER 1,000 LBS. LIVE WEIGHT.)

	Total organic substance.	Nutritive (digestible) substances.			Total nutritive substances.	Nutritive ratio.
		Crude protein.	Carbohydrates.	Ether extract.		
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
Steers at rest in stall.....	17.5	0.7	8.0	0.15	8.85	1:1.2
Milch cows.....	24.0	2.5	12.5	0.40	15.40	1:5.4
Horses moderately worked..	21.0	1.6	10.0	0.50	12.10	1:7.0
Horses heavily worked.....	23.0	2.5	12.1	0.70	15.30	1:5.5
Fattening steers, 1st period..	27.0	2.5	15.0	0.50	18.00	1:6.5
" 2d period..	26.0	3.0	14.8	0.70	18.50	1:5.5
" 3d period..	25.0	2.7	14.8	0.60	18.10	1:6.0
Fattening swine, 1st period..	36.0	5.0	27.5		32.50	1:5.5
" 2d period..	31.0	4.0	24.0		38.00	1:6.0
" 3d period..	23.5	2.7	17.5		20.20	1:6.5
Growing Cattle.						
Average live weight						
Age, months. per head.						
2-3 165 lbs.	22.0	4.0	13.8	2.0	19.8	1:4.7
3-6 330 lbs.	23.1	3.2	13.5	1.0	17.7	1:5.0
6-12 550 lbs.	24.0	2.5	13.5	0.6	16.6	1:6.0
12-18 770 lbs.	24.0	2.0	13.0	0.4	15.4	1:7.0
18-24 940 lbs.	24.0	1.6	12.0	0.3	13.9	1:8.0

Very Much Pleased With It

CAMLACHIE, March 27th, 1899.

DEAR SIR,—Find enclosed \$1 for this year's subscription for FARMING. This is the third year that I have taken it and must say that I am very much pleased with it.

Yours truly,
J. W. SYMINGTON.

CORRESPONDENCE

Practical Poultry Keeping

To the Editor of FARMING:

I send you the following answer to J. R.'s poultry questions in March 21st issue:

(1) Is it possible to make hens lay as many eggs in winter as in summer? I keep purebred Barred Rocks. Forty-five hens and pullets laid during January 21½ dozen eggs; February, 32 dozen; March, 53½ dozen; total, 107 dozen.

(2) Isn't heat as essential to egg-production as proper food and exercise? My experience has been that proper food and exercise are more necessary than heat.

(3) Would 60 or 70 degrees in a poultry house be too warm, all other requisites being provided? All other things being equal, I do not think this temperature would be too warm.

(4) What breed or strain of fowl is actually the most profitable as a broiler and as an adult? Barred Rocks are good layers; the chicks make good broilers and the adults make fine roasters.

Mongolia, Ont., March 31st, 1899. J. B. LAWRIE.

To the Editor of FARMING:

Re the enquiry of J. R. in last week's FARMING, is it possible to make hens lay as many eggs in winter as in summer? I find after years of experience they can be made to lay nearly as many but the conditions are to be provided for. To secure these results poultry breeders must prepare for this now, and for next winter's profits hatch out the chickens in April, and after they are strong enough let them have free range as far as they wish to go. When the fall arrives place all the best and most vigorous pullets in their winter quarters, weeding out all the scrub by ones and have plenty of house room and if possible have a scratching place. A shed adjoining is best for cold or stormy days. Do not crowd and never place more than 30 to 50 hens in one lot. Many object to more than 25, but my experience is that with plenty of room and a proper place 50 will lay and give as good results as 25 will providing the same care is exercised. By December 1st your April hatched pullets should be in fine shape to commence laying and then is the time to feed and care for them properly. Green feed such as mangels, cabbage, turnip or clover, hay cut fine and mixed in soft feed, green bone twice a week with grit and oyster shells, gravel, etc., where they can have free access to, with a change of grain and not too much of it thrown in straw where they will have to scratch for it; these with plenty of fresh clean water or skim milk, with the house cleaned every week at least and fresh straw added will ensure an abundant supply of eggs at a time when one dozen is worth three dozen in the summer. These results can, of course, only be attained in a proper building. A building kept so that the water will not freeze and is warm enough for the fowls. Artificial heat has not as yet proved satisfactory although my opinion is if a building was heated with hot water heaters it could not but be satisfactory as there is nothing in the heat from hot water heaters that is injurious to the health of the fowls. Sixty to 70 degrees would not be too warm providing you can keep it at that point all the time. A proper building is warm enough if well and warmly built without heating. Under these conditions winter layers will be found to prove a greater profit than summer layers, and although they lay in the winter they will lay just as well all summer until moulting time as if they had not started till the spring. The best breed or strain is, I think, according to the breeder's taste for broilers and for that alone the light Brahmas make the greatest weight in the shortest time. For an all round fowl I am firmly of the opinion for sales, prices, eggs, etc., taking everything into consideration, the Barred Plymouth Rocks have no equals, and for eggs alone the Leghorn is king.

W. B. COCKBURN.

Woodstock, March 24th, 1899.

Practical Poultry Keeping

To the Editor of FARMING:

I have received a sample copy of your journal and in looking over it I see an article headed, "Some Practical Poultry Questions," which J. R. would like answered. I take an interest in all poultry matters, so I thought I would answer J. R., if not too late.

1st. Is it possible to make hens lay as many eggs in winter as in summer? Yes; if properly fed and kept moderately warm they will lay more in winter than in summer. Hatch pullets early, say in April, and they will commence laying in October and November, and if properly fed on grain and vegetables will lay all winter, and show very little inclination to get broody, not nearly so much as in summer. After August, when the hens are moulting, you will find only a small per centage of them laying, consequently they will lay all winter, but lose a lot of time in the summer moulting.

2nd. Isn't heat just as essential to egg production as proper food and exercise? Yes; moderate heat, or a warm building, but no artificial heat.

3rd. Would 60 or 70 degrees in a poultry house be too warm, other requisites being provided? Yes, decidedly; just warm enough to keep combs from freezing is sufficient. If you kept your coop at 60 or 70 degrees you would require a "drug store," in the other end of your coop.

4th. What breed or strain of fowls is actually the most profitable as a broiler, and as an adult? The Buff Plymouth Rock, as an all-round, general purpose fowl, excels all others. They mature very early for broilers and the pin feathers do not show like they do in the Barred Rock, and they are a brighter yellow when dressed than the Barred or White Rock, and a better layer than either one. Wyandottes are a very good all-round fowl, but rather small and do not mature as early as the Rock. I have tried them all and am giving my practical experience.

Yours respectfully,

T. H. SCOTT.

St. Thomas, Ont., April 3rd, 1899.

The Spraying of Fruit Trees.

To the Editor of FARMING:

In spite of all that the up-to-date orchardists are doing to make known the fact that in order that fruit-growing may be made a remunerative calling in this province in the future, fruit of a high quality and of high quality *only* must be produced; and in spite of the fact that our Government, alive to the interests and necessities of the people, is annually spending large sums of money to educate the public as to methods of producing the same, there are still many who take no heed thereto but adhere to the "good old ways." It is a pity there could not be found some far-off island to which this class of people could be transported that they might enjoy life together by living a few years behind the times.

One of the methods by which we are enabled to acquire the desired result is the thorough spraying of our fruit trees and plants. Notwithstanding the satisfactory results that have been obtained during the past few years by the growers in the Niagara peninsula who carry on this work annually, and also the remarkable success that has attended the efforts of the Government in experimental spraying, there are still many who pretend that they have no faith in the efficacy of the work. The sooner these men get out of the business the better for themselves and the fruit-growing industry, for if they have not the understanding to comprehend the advantages arising from such procedure, they have not sufficient to carry them to success in this branch of horticulture.

It is not to this class of men that I am writing this article, neither to those progressive growers who already carry on the work, but it is written that, should anyone who does not thoroughly understand the composite parts of the solution, and its application and the results obtained from

its use, chance to read it, they might be benefited thereby.

There are many farmers, and not a few fruit-growers in a small way, who have neglected this work in the past because they entertained the mistaken idea that their plantations were not large enough to demand the outlay of sufficient capital to secure the necessary apparatus. When we take into consideration the fact that in many instances in the past apples from sprayed trees have sold readily at from \$3 to \$4 per barrel, while fruit of the same variety but from unsprayed trees has been difficult to sell at from \$1.50 to \$2.50 per barrel, it can be easily seen that it would take but very few trees to make a pump a very profitable investment. And besides this increase in the price, the yield is increased and the trees are kept in a healthy and vigorous state. It has been established that in the case of the apple crop, spraying will protect from 50 per cent. to 75 per cent. of the fruit which would otherwise be wormy, and that in actual marketing experiences the price has been enhanced from \$1 to \$2.50 per barrel, and this at a cost of only about ten cents per tree for labor and material.

Besides being a preventive to insect ravages it also, to a very great extent, overcomes such fungus diseases as apple scab, black-knot in plums, and rot in plums and cherries.

To do the work *thoroughly*, and there is no use doing it unless it is done thoroughly, it is in the first place necessary to have a first-class outfit. Many of the pumps on the market are valueless excepting for old iron. The "Spramotor," of London, and the Aylmer pump, with attachments, are both excellent outfits, and in purchasing one of these no one would make any mistake, for there are none better if as good.

The next thing is the solution. For the destructive insects of eating habits we should take 4 ozs. paris green to 40 gals. water. To combat the fungus add to this 4 lbs. copper sulphate and 4 lbs. fresh lime.

Many in the past have made their first mistake in preparing the solutions, and because the results have not been satisfactory have blamed the solution instead of themselves. Do not weigh out the paris green and then throw it into the water. A great amount of it will never dissolve if such a course is pursued. Put the paris green in an earthen cup or bowl, add a few drops of water and stir. When this water is taken up add a little more, and so on until you will soon have a paste and every particle will be dissolved, then put it into your barrel of water. To dissolve the copper sulphate suspend it in leno or mosquito netting in *hot* water, keep it *hot* and it will soon become dissolved. Be sure this is dissolved in a wooden pail as it would ruin any metal receptacle. After your lime has been slacked and all are put in the barrel and thoroughly mixed your solution is ready.

Now, do not *drench* the trees but *spray* them. Break up the spray so that the particles settle on the leaves and branches like a fog. Cover every particle of the tree with this fog. Do not allow it to settle until the leaves begin to drip for if you do the solution will run to the edges, drop off, the leaves will simply have had a wash, the material will be wasted, and the results unsatisfactory.

Plums, pears and cherries should be sprayed at least twice with this solution. The first application after the blossoms have fallen and the second ten or twelve days later. Apples should be sprayed at least three times. The first application should be given when the buds are swelling, the second immediately after the blossoms have fallen, and the third ten or twelve days later. It is sometimes advisable to give the fourth application when there is danger from scab.

Great care should be exercised while mixing and using the solution as it is deadly poison. Never spray while trees are in bloom and bees are working as it is against the laws of the land, and anyway would do very little good at that stage.

The public is gradually waking to the fact that spraying is indispensable if good fruit is desired, and we trust that all readers of FARMING have caught the spirit of the teach-

ings of the journal and are alive to the necessities of the times. As so much has been said, and so many articles have been written in horticultural papers, concerning spraying, it may be some will think the subject a "chestnut." Much as has been said and written it is astonishing how few, comparatively speaking, are trying to assist in the grand work of raising the quality of Ontario's fruit to such a plane as cannot be surpassed by any other country.

JOHN B. PETTIT.

Fruitland, Ont.

Dairying in the North-West

To the Editor of FARMING :

I enclose you a summary of our business for the summer season of 1898, issued by Professor Robertson, a showing which we think is very creditable to the Department of Agriculture and Dairying, and is an evidence of what are the possibilities of the North West in the dairying line when properly conducted.

Previous to the taking over of the creamery by the Department two years ago the dairy industry was a failure. Almost every patron had lost confidence in the business and was turning his attention either to some other line of farming or to ranching.

The growing of grain would without doubt prove profitable but for the distance to market. When grown under favorable conditions 40 to 47 bushels of No. 1 hard wheat is not an unusual yield, and 80 to 100 bushels of oats per acre, weighing 44 pounds, and, in some cases, more, per measured bushel. The present price of wheat is 52 cents and oats 25 cents per bushel.

The amount of butter made during the summer of '98 was 42 per cent. greater than in '97, and the make during the present winter is more than double that made the previous winter.

No difficulty has been experienced either seasons owing to the severity of the weather, only one trip being missed by the cream-haulers, and that was made the following day, a fact, which, no doubt, is a surprise to many in the eastern provinces, who imagine that the climate here is unusually cold and severe and certainly not adapted for winter dairying.

The food cost of a pound of butter, especially in the summer, is very low, there being an abundance of free pasturage until grass matures in the fall of a very nutritious and succulent character. Our patrons are highly pleased with the results in the past, and are very hopeful for the future. Twenty three hand separators were used, and we expect the majority, if not all, to own separators in the near future, great value being placed in the skim milk as food for calves when fed sweet. The largest sum realized per cow reported to us for the year 1898 is \$40.13. Prospects for the future are very encouraging.

Yours truly,

S. FLACK.

Red Deer, Assa., March 18, 1899.

The Tuberculin Test

To the Editor of FARMING :

As there is a lot of writing and talk about Tuberculosis in the cattle of this country as well as in other countries at present, allow me to say a few words in FARMING from a farmer's standpoint. If this dread disease is so prevalent in the human family as reported lately (200 deaths in one month in this province), and is so very contagious as reported by our Vets, and communicated from man to beast and from beast to mankind, it makes me think there is danger ahead for both man and beast.

Now, when tuberculin was first introduced to the public, it was to cure consumption and not to test a person to know whether he had consumption or not. How the Medical Profession, as well as the people, rejoiced to hear that at last there was found a cure for that dread disease, consumption. Why do they not use it now for a cure?

Because they found it to be a failure and had a tendency to hasten on the disease that might have laid dormant for quite a number of years. Will it not have the same effect on our cattle and hasten the disease that might have laid dormant until they went to the block and helped to feed the people with wholesome meat? In speaking to one of our Inspectors lately he said there was no danger of tuberculin giving the disease to healthy animals, for it was all boiled before it was used, therefore the germs were all killed. Would not boiling or cooking meat kill the germs as well if there were any to kill? I would ask what good is testing anyhow when the animals are let live after they have reacted sufficiently to show they are diseased, or is it an infallible test under all circumstances? If not, I think it will do more harm than good, and again I would shout, *Danger Ahead.*

As consumption is so very contagious, as stated by our Inspectors, and is more prevalent in the human family than in our cattle, I would offer this suggestion to the Government: Have every one of the Inspectors tested with tuberculin, commencing with the Dominion Inspector, then the Provincial Inspectors and all the County Inspectors, and let not one of them go near a beast to inspect or to treat it who would not stand the test. And if there were any doubts about their soundness test them again and double the dose. Just serve them the way the Duke of Wellington served a man who came to him with a bullet-proof coat and wanted a royalty on each coat for all his soldiers. The Duke ordered him to put the coat upon himself and then ordered some of his soldiers to take him out and try the coat with a few shots. But the man left in a hurry, and that was the last heard of his bullet-proof coats.

Sunderland, Ont., March 29th, 1899.

W. S.

An Experience with Commercial Fertilizers

To the Editor of FARMING:

As spring approaches, crops, cultivation, and fertilizers become subjects of thought and discussion, and I notice articles in your columns descriptive of the values and functions of the various crops such as clover, etc. Considerable space has also been devoted to a description of Alberts' Thomas-Phosphate Powder as a fertilizer and renovator of worn-out or run-down soils. I have watched closely for some statements of results obtained from its use by Canadian farmers but so far have not seen any. Now, it sometimes happens that what would appear to be very clearly proven by the logic of argument does not appear so when tried by the test of experience, and with your permission will give you my own experience with this highly recommended fertilizer. Last spring I met the representative of the firm supplying it and heard from him of the grand results from its use as seen in increased crops, improved quality, and freedom from fungus diseases. The awakening into life of clover germs lying dormant in the soil, and a consequent crop of this very valuable plant were among the claims made for this wonderful powder. I ordered half a ton through Mr. A. Carter, the agent here. The powder is furnished in sacks containing 225 lbs. each. I got five sacks at a cost of \$16 87½, or at the rate of \$30 per ton, and had it sown at once and worked into the soil in accordance with directions given by said representative. It was sown at the rate of a sack per half acre on parts of two different fields on farms half a mile apart and on soils varying from clay loam to sandy loam. Tests were as follows:—Corn, two plots in different fields; turnips, two plots in different fields; potatoes, one plot. Field No. 1 had been in grass two years and oats one year previous to the test, and had received a liberal dressing of barnyard manure in preparation for the root and corn crops. Field No. 2 had been in grain three years previously and had also received a liberal dressing of barnyard manure. Now for results. After watching closely and estimating carefully, no results were discernible either in quality or quantity in the crops on either of the plots named last season but, as the powder is said to have beneficial effects for four years following its application,

I have not given up hope, but would be glad to hear from others of your readers who may have had success with it, as I may say I know of no more convenient way of helping each other than by telling what we have learned by experience. Thanking you for space in your columns,

Elora, Ont., March 22nd, 1899.

C. WRIGHT.

NOTE.—Mr. Wright's request is a good one, and we would like to hear from others of our readers who have had experience with this or any other commercial fertilizer. The use of commercial fertilizers in Canada is a comparatively new thing, and it is only during the past year or two that any special interest has been aroused in the subject. In Great Britain as well as in the United States, thousands of tons of commercial fertilizers are used every year, and if it is a good thing for the farmers of these countries to use them why would it not be a benefit to Canadian farmers, especially in the older sections, to do so? In England it is not the use or non use that is being discussed, but which is the best kind to use, and we might add that Alberts' Thomas-Phosphate Powder is used very extensively there, and from reports that appear in the British agricultural press would appear to be giving excellent results. We would, therefore, be glad to have the experience of any farmer who has used commercial fertilizers of any kind.—

EDITOR.

Sheep vs. Dogs in Indiana

To the Editor of FARMING:

The wool growers of Indiana have had a varied and wide experience in securing an efficient dog law at the hands of their legislators, and we believe that we have one now that is the best we ever had, if not the best in the United States.

In the first place, you must have a law that is just to both parties interested and protects the farmer, as well as the dog-owner, and not conflict with the rights of either.

The farmer owns his farm, and the dog is a trespasser when on another man's premises besides his master's. The farmer must have the right to kill a dog when away from his master and also found worrying his stock.

(The farmer need not tell everybody what he does on his farm and must protect his interest by whatever means are in his hands.)

The owner of the dog must not be taxed unreasonably. If he is he makes a great fuss and gets the law repealed, and when he pays his tax his dog is not to be molested unless found to be a wrong-doer. All dog fanciers are willing, and will permit a law to be passed, that if his dog does wrong he may be killed. Here some of the trouble comes in, to prove whose dog has done the mischief; but, if killed in the act, no question is raised.

One dollar for a male dog and two dollars for a female is about the notch, and an additional fee for extras or more dogs than one. We do not have an inspector. The township assessor lists all dogs (when he lists property the 1st of April) and collects the dog tax and gives each dog-owner a receipt. If not paid then the dog must be killed, and he prescribes the rule of action, etc.

The man who has his sheep killed gets two disinterested farmers to appraise the sheep killed, maimed and worried, and goes before the township trustee inside of ten days and swears to the amount of damage sustained as to ownership, etc., and his claim is recorded, as are the oaths of the men subscribing to the statement; and, if the trustee has money, he pays the claim; if not, it takes its turn. The farmer must use all the vigilance he can in finding the dogs which did the devilish deed.

The owner of the dog, when proof is made that his dog has killed sheep, if he refuses to kill it, must pay a fine for each day he keeps his dog. If he refuses to pay the fine, he is put in jail.

It is very important that the tax be collected when the dog is listed. There are ample provisions for enforcing this part of the law. Costs have gone as high as twenty dollars where the law is not complied with.

Very truly,
Greencastle, Indiana, U.S., March 24th, 1899.

J. W. ROBE.

"CANADA'S GREATEST SEED HOUSE"

The Steele, Briggs Seed Co.'s

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

Among our many introductions of merit

The Steele, Briggs' Improved Short White CARROT

Is the . . .

World's Champion

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

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

. . . As an
Exhibition Prize Winner
it is the Peer

Price (post-paid) per lb., 45c.; ½ lb., 25c.; ¼ lb., 15c.; oz., 10c.

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

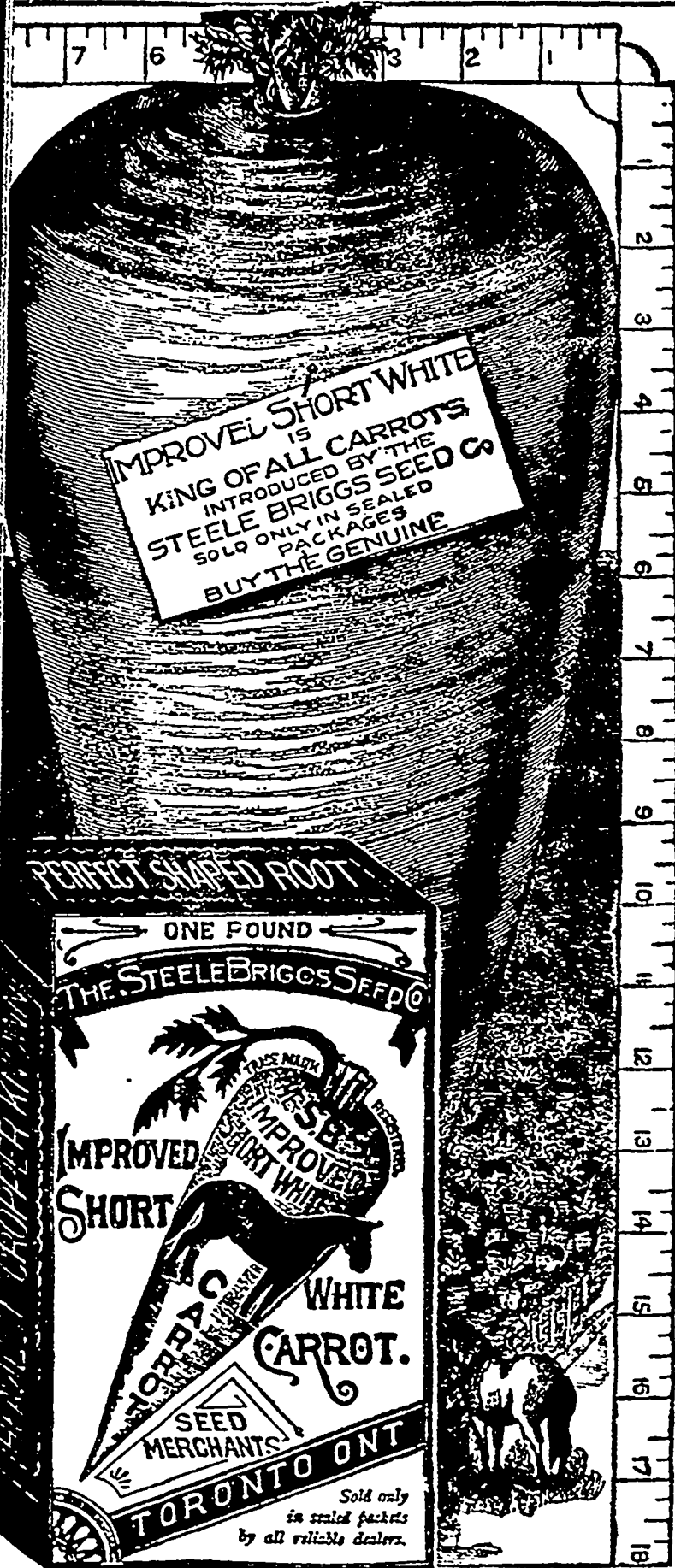
NEW . . . Danish White Oats

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

Price by mail (post-paid) per lb., 15c.; 4 lbs. for 50c., or by freight or express (purchaser paying carriage) peck 25c.; bush, 50c.; 10 bush, 4.00; 20 bush, 7.50; 40 bush, 14.00; 80 bush, 27.00; 100 bush, 35.00. Cotton bags, holding 2½ bush., at 15c. each.

Write for our Catalogue, contains descriptions and prices of the new and best Field and Garden Seeds. ~~1000000~~ Please mention this page

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



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

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

QUESTIONS AND ANSWERS.

FITTING UP A HEN HOUSE.

To the Editor of FARMING:

Will you please give me some suggestions as to finishing the inside of a hen house as to nests and roosts. The house is 12 x 18. I advertised M.B. turkeys in FARMING some time ago with the best results. I had inquiries from ocean to ocean and more orders than I could fill.

Yours, etc.,
ARTHUR FISHER.

Chatham, Ont., March 29, 1899.

Answered by A. G. Gilbert, Poultry Manager, Central Experimental Farm, Ottawa.

We have found a board floor the best. On the floor should be the litter to a depth of 8 or ten inches. The nests should be so arranged as to be easily reached from the passage-way. The platform should be above the nests, and the roosts eight or ten inches above the platform. Secured to the side of each pen should be a small narrow trough, say 2 1/2 inches in width by 4 feet in length, in which to feed cut bone, mash, etc., a small box, 3 x 6, divided into two parts, to hold grit and ground oyster shells; and a fountain with 1/2 inch lip to hold drink water. See Experimental Farm reports of 1894 and 1896. All grain should be thrown into the litter on the floor, so as to keep the hens busy searching for it.

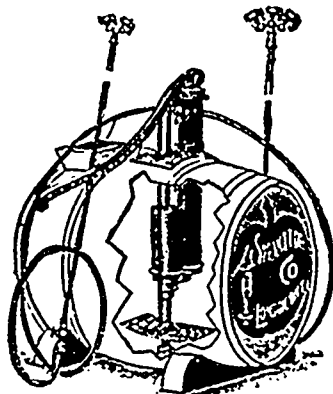
CENTRAL CANADA FAIR.

ARRANGEMENT FOR LIVE-STOCK EXHIBIT. INCREASED PRIZE-LIST AND ADDED CLASSES.

The committees in charge of the different departments of Ottawa's great Central Canada Exhibition are organizing for work and everything points to the biggest show and biggest prize-list on record. Special inducements are to be given stock-raisers this year, and as the fair dates will meet the convenience of all the leading stock-raisers in the country, the increased prize-list and improved accommodations will no doubt attract a magnificent exhibit. The committee in charge of the horse exhibit met last week and decided on a number of changes and improvements which will bring this department up to the highest standard in Canada. There were present: Mr. Arnold, chairman, and Messrs. Robt. Beith, M.P., Bowmanville, Wm. Hutchison, M.P., Sheriff Hagar, L'Original, T. C. Bate, I. A. Heney and Ben Rath well. It was decided to add a new class at the request of the Breeders' Association for French Canadian horses, stallions, any age. Three prizes, \$20, \$15 and \$10.

The height of carriage horses double was changed from 15 1/2 to 15 3/4 hands and over. A new class was added for a pair under 15 3/4 hands. A corresponding change was made in the single carriage class. In the high-stepping class the height rules were abolished. The Roadster class height was reduced from 15 1/2 to 15 hands. In

THE SPRAMOTOR FIRST



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

Rival manufacturers would gladly have us let the result of the Contest of Spraying Apparatus die, but how would this suit the purchasers of this kind of apparatus, who have been buying apparatus that has not been satisfactory in use and has caused more people to delay the practice of spraying than all other causes combined?

Send for full particulars in our copyrighted catalogue on the diseases affecting fruit trees, vegetables etc., and their remedies.

Over 100 GOLD MEDALS AND THE HIGHEST AWARDS have been granted the SPRAMOTOR in three years.

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

Certificate of Judges' Award:

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

Agents Wanted. H. L. HUTT, H. PETTIT, Judges.

SPRAMOTOR CO., 357 Richmond St., LONDON, ONT.

LEADING COLLEGES OF CANADA

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The **CENTRAL BUSINESS COLLEGE, TORONTO**

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

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

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in making Butter or Cheese can be obtained only by using the best ingredients.

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so many good butter and cheese makers always insist on having

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The North American Chemical Co., Limited

Goderich, Ont.

the Hackney class foals were added. In the saddle class hunters light and heavyweight, the prizes were increased by \$50. In the class for ponies, stallions were added. A new class was added for local carriage or roadster horses. An effort is being made to secure for Ottawa medals from the English and American Hackney Associations and favorable replies have been received. Owing to this year's attractions, including racing, it was decided that all judging in the ring shall take place between 9 a.m. and 12.30 p.m. This year no changes will be allowed in entries after they are first made.

On Good Friday afternoon the cattle, sheep and swine committees met, those present being Charles Mohr, Wm. Hutchison, Geo. Boyce, Sheriff Hagar, J. A. Richardson, J. C. Bradley, Alex. Stewart, John Dawson, R.

Cummings, H. D. Smith, Compton, representing Dominion Cattle Breeders' Association, and J. Yuill, Carleton Place, representing Dominion Sheep and Swine Breeders' Association. In the Holstein and Ayrshire classes prizes will be offered for young herds in addition to diplomas. In the Canadian cattle class calves were added.

The proposed milk test for this year will hardly be as successful as was anticipated owing to the request for entries being sent after the annual meetings of the Ayrshire, Guernsey, Jersey and other associations. Next year the secretary will remedy this difficulty. There will be a test this year, however, as the Holstein class has been entered, and the competition is open to all purebred cattle. A prize of \$100 will be given.

In the sheep department a special purse of \$20, divided in three prizes,

will be given the best pen of Canadian bred Shropshire sheep, competition being limited to Carleton, Prescott and Russell, Pontiac, Ottawa, Renfrew, Lanark and Leeds and Grenville counties. The prizes will be improved in other respects.

In the swine department, aged boar and sow in the Duroc Jersey class have been added. In the Poland-China class the prizes have been increased and the regulations changed so as to make it equal to other departments. It was decided to give special attention to the swine department, and further announcements will be made later. Mr. Sharpe Butterfield, of London, was appointed judge of all breeds of poultry.

GRIMSBY FRUIT GROWERS MEET.

Mr. T. C. Wallace, of Toronto, gave a lecture in the Town Hall, Grimsby, on Saturday afternoon, March 25th, on manuring, before a number of the farmers and fruit growers of this section. The day being stormy the attendance was not so large as it otherwise would have been, but those who did turn out were well repaid for their trouble. All of those present were more than delighted at the manner in which he treated his subject and the plain, clear and practical way he explained and illustrated his different points. It was the opinion of every one present that they are the richer in knowledge of how to apply manure and treat their soils to get the very best results afterwards. Mr. Wallace gave the most practical talk on manures that was ever given in this section, and all of those who heard him were convinced that he thoroughly understood his subject. It will well repay any agriculturist or horticulturist to go some distance to hear him.

A SUBSCRIBER.

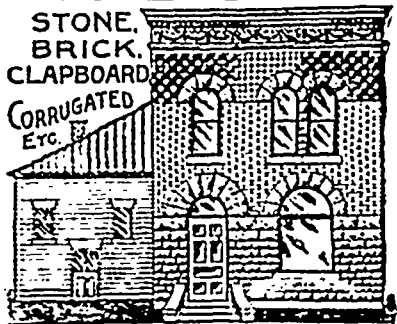
PROVINCIAL DAIRY SCHOOL.

The seventh session of the Dairy School at the Ontario Agricultural College, Guelph, closed on March 25th. The number in attendance was 115, sixteen of whom were ladies. The majority remained for the full term of three months, and forty-four wrote for certificates. Of this number thirty-four candidates passed on all subjects and will receive certificates.

ATTEND THE HORSE SHOW.

Farmers should bear in mind that the Canadian Horse Show takes place at the Armouries, Toronto, on Thursday, Friday, and Saturday of this week, and that it will pay them to take an outing on those days and see what is being done in this country in the way of producing fine horses. Cheap rates are announced on the various railways leading to Toronto and the price of admission to the show has been reduced to 25 cents at any time during the show.

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Stores, Houses, Halls,
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Entirely water, wind,
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last years and always look
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Patchall

WILL REPAIR

Rubber Goods	Cloth Goods
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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, 2 inches square, for a cent. If you cannot obtain it from your hardware dealer, send 25 cents and we will mail a can to your address, prepaid. Manufactured by

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It depends on the Process

Used in the manufacture of salt whether the production is of the highest grade or not.

The "Vacuum Process" for making salt is the most modern and scientific.

It makes a finer and purer salt, most readily dissolved, and perfectly even in crystal.

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Ask your dealer for samples and testimonials.

BINDER TWINE

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PURE MANILA, 650 FT. TO LB.

SPECIAL MANILLA,

TIGER, STANDARD.

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

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

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LIMITED,
MONTREAL.

OXFORD FAT STOCK CLUB.

The fourteenth annual meeting of this organization was held at Woodstock on March 25th. The club is in good standing, having a substantial balance now on hand. The directors' report referred to the liberal patronage given the club in the past, and pointed out that the dates selected last year unintentionally conflicted with the Provincial and Guelph Shows. This fact, coupled with an unprecedented fall of snow at the time, made the number of animals shown much less than former shows, though some excellent animals were shown. The total number of entries was 124, and the cash prizes paid out \$283. The coming show will probably be held immediately after the Provincial.

THRUSH

Thrush, while not an unsoundness except in severe cases where lameness is the result, is very common, and is generally caused by standing in foul stables and lack of care to the cleaning out of the horse's feet, and the frog becomes foul and diseased, and, when cleaned out, smells terribly. A veterinary gives this:

Dressings for Thrush—Crude petroleum, linseed oil and turpentine of each equal parts. Apply once or twice each day, as the case may require. In aggravated cases, after undergoing trimming, we saturate a pledget of tow or oakum with butter of antimony, and apply once in three days, or according to the judgment of the attendant.

AMERICAN SHROPSHIRE SPECIAL PRIZES.

The American Registry Association have arranged to give the following special prizes at the leading Canadian fairs for 1899: Industrial Fair, Toronto, \$35; Western Fair, \$35, Industrial Fair, Winnipeg, \$35; Provincial Fair, Montreal, \$25; Central Canada Fair, Ottawa, \$25; Provincial Fair, \$25; the Provincial Fat Stock and Dairy Show, \$50.

BUYING CHEMICAL MANURES.

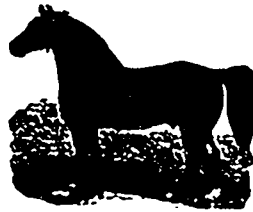
Chemical manures are, so far as they are of use to agriculture, only so much nitrogen, potash and phosphoric acid. For example, a ton of nitrate of soda contains 320 pounds of nitrogen, the remaining 1,680 pounds are mere dead weight and useless to the farmer, but they are a part of the framework which holds the nitrogen together and cannot be dispensed with. Muriate of potash contains 1,000 pounds of actual potash per ton, with only 1,000 pounds of dead weight. When a farmer buys a ton of muriate for say \$50.00, he gets 1,000 pounds of actual potash for the \$50.00; that is, he pays 5 cents per pound. A ton of kainit at \$15.00 would cost per pound of actual potash just 6 cents, so that it is very evident the muriate is far the cheapest potash. This indicates how important it is to watch the quality of fertilizer materials offered for sale.

Another point of almost equal importance is, the quality of the fertilizer. Some forms of nitrogenous fertilizer materials give up their nitrogen to plants very slowly, and the same is true with regard to certain forms of potash and phosphate materials.

As a general rule, fertilizers must be a soluble in water before plants can make use of them. This is particularly true of potash and phosphate. Fortunately the most reli-

**Griffiths' Veterinary
...Menthol Liniment**

A Veterinary Medicine Ghost 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

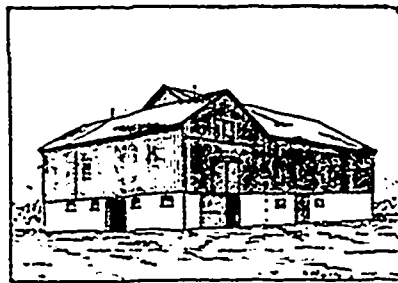
The GRIFFITHS and MACPHERSON CO.
SOLE PROPRIETORS
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Thorold Cement

SPEAKS FOR ITSELF



ILDERTON, ONT., MARCH 9th, 1899.
ESTATE JOHN BATTLE, Manufacturer Thorold
Cement, Thorold, Ont.

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

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

AGENTS WANTED in unrepresented districts

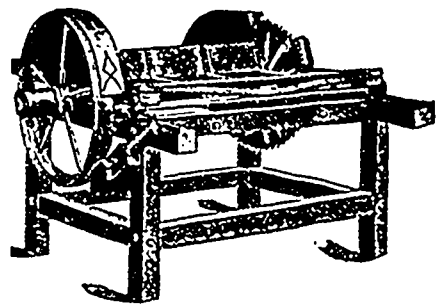
ESTATE OF JOHN BATTLE

Mention this paper. of. THOROLD, ONT.

Binder Twine

Agents Wanted. Ontario Binder
Twine Co., 124 Front St. West,
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Experience Teaches



LANCASTER MACHINE WORKS,
Lancaster, Ont.

GENTLEMEN:—

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

Yours truly,

PETER K. McLENNAN,

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

BIG MONEY
FOR AGENTS

THE STAR RIVETER

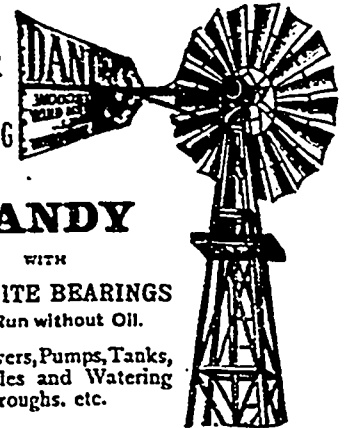


For MENDING HARNESS, BELTING, etc. Indispensable to Farmers, Livery-men and Threshermen. **STAR RIVETER** complete, with 50 tubular rivets, \$1.00. Best selling article ever introduced. Agents write for special prices and territory.

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Get a

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GRAPHITE BEARINGS
They Run without Oil.

Steel Towers, Pumps, Tanks,
Saw Tables and Watering
Troughs, etc.

WOODSTOCK WINDMOTOR CO., Limited

Woodstock, Ont.

**Winona
Nursery Co.**

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

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

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

able supply of potash, German potash salts, are always soluble in water, but it is different with phosphates. In natural phosphates, the phosphoric acid is always insoluble and very slowly available, and a large portion of the potash is also fused with silica into a sort of glass, and consequently of little value as plant food. All these points should be fully considered in buying, as they make the value of the goods. In the use of chemical manures, it is well to bear in mind that on tilled soil they can be applied at any time without danger of any considerable loss. In fact, it is advisable to apply early in the spring as possible. On frozen ground they would, of course, wash off, but as soon as the land has opened is the correct time to use minerals. This is of greater importance the shorter the period of growing weather. In the north, fall fertilizer applications are not as effective as in the south.

THREE GOOD BOOKS FOR HORSEMEN.

We are indebted to Vinton & Co., Limited, the well-known publishers of London, England, for copies of new editions of Sir Walter Gilbey's excellent contributions to live stock literature of a recent date. In view of the reviving interest in horse-breeding in this country the new editions of this author's three books on the horse reach us at an opportune time. The first of them is, "The Great Horse," or a history of the war horse of the Roman Invasion till its development into the Shire horse of the present day. It was first published in 1889, and a second edition has become necessary. In it the author has presented in a concise and very readable form "the main facts concerning the origin and development of this truly noble and most useful animal, and points out the true type of the 'Shire Horse.'" In his work on the Harness horse, the second of the three books in review, we find a great deal of information which is particularly interesting to us at the present time. A statement in the introduction strikes us as being remarkably apt. It is said that history repeats itself, and Sir Walter Gilbey points out that on the establishment of railways in England it was seen that the coaching era was at its close, and it was thought that the harness horse would no longer be required. The breeding of horses was consequently abandoned by the farmers just as they have done recently in this country on the introduction of electric carriages and railways. But, as was the case in England fifty or sixty years ago, so it will be in Canada now. The farmers are beginning to realize that the demand for good horses is still as active as ever it was, and there is no doubt it will outlast our time at all events. The "Harness Horse" is a history of the hackney of the present time. It is now in its third edition, and should be of great interest to every owner and admirer of this splendid type of animal. The last of the three is "Young Race Horses" (third edition) and is equally as interesting and instructive as the others. Sir Walter Gilbey's great experience as a breeder of horses and all kinds of stock qualifies him to write intelligently and sympathetically upon these subjects which are evidently very near to his heart. The whole three books should be read by every horseman.

Publishers' Desk.

Metal Shingles.—The Metal Shingle and Siding Company, Limited, of Preston, Ont., call attention in this issue to their "Safe Lock" Shingles. The success of the company last year and the exceedingly bright prospects for this year's trade has necessitated many improvements and additions to the company's buildings and plant. They have recently erected a new building 50 x 112 feet, and added machinery for the manufacture of a complete line of metal ceilings and interior decorations, and also of standing seam roofing. From what we know of the company we are confident their patrons will find them satisfactory people to deal with.

"Spraying for Profit."—Now is the time to get all available information possible

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.



HATCH CHICKENS
BY STEAM—with the simple, perfect, self-regulating
EXCELSIOR INCUBATOR
Thousands in successful operation.
Largest priced 12-chickens hatcher made.
GEO. H. STAHL,
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PLANT LIFE, to be vigorous and healthy, must have

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Phosphoric Acid and Nitrogen. These essential elements are to plants, what bread, meat and water are to man.

Crops flourish on soils well supplied with Potash.

Our pamphlets tell how to buy and apply fertilizers, and are free to all.

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

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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.

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

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

Queenston Cement

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

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

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

Isaac Usher & Son, Queenston, Ont.

regarding the best methods of protecting your fruit trees, shrubs and plants from the incursions of insects. "Spraying for Profit" is the title of a little book everyone should have, for it gives just the information required. Price, 20c. per copy. It will be sent to any of our subscribers when renewing their subscription for the small additional outlay of 10c. Send your renewal now and get a copy.

Get Your Money's Worth. — The American farmer knows where to get his money's worth. That is why he buys the McCormick in vast majority. The great record of 189,760 machines built and sold in 1898 was made by the McCormick Harvesting Machine Company of Chicago. These figures utterly transcend those of any other agricultural implement factory on earth. There is a reason for this: it arises from the masterly construction of the McCormick machines. They are the most modern of all machines upon the farm. Each machine turned out of their gigantic works possesses a genius in design, an accuracy in workmanship and a strength of material which surpasses all rivalry. The agriculturist who wants to be a happy farmer is attracted to the McCormick machines. He has the absolute certainty of his money's worth when he buys "The Best in the World."

Stock Notes

MR. JOSEPH CAIRNS, Camlachie, Ont., is offering some good stock in Chester Whites in this week's FARMING. He reports that his stock has wintered exceptionally well, and he has never had a better lot of offerings since he has been in the business of breeding pure-bred swine. This is saying a good deal, as the success which has crowned Mr. Cairns as a breeder has been considerable, as our readers very well know. At present he has a number of choice young sows in farrow, and a fine collection of younger ones of the best quality and breeding. His stock of boars has been reduced to two or three good ones, and these he would dispose of at reasonable prices, as he has recently imported a fine one from the herd of Mr. W. Whinery, of Salem, Ohio. His sales of stock for March include seventeen head to McArthur & Cairns, of Sarnia, as the foundation for their establishment as swine breeders, in which business they are embarking for the first time; also two brood sows to Mr. T. Crawford, of Plympton, and two sows to Mr. H. Walker, of Pipestone, Manitoba. The demand for Chester Whites appears to be good, and the prospects for this year's trade are much brighter than they have been for some time.

MR. W. D. FLATT, of Trout Creek Farm, Hamilton, Ont., presents our readers with an attractive announcement this week. His offerings include a number of choice young Shorthorn bulls and heifers of excellent quality and breeding. Some of the bulls are of the right quality and type to secure success in the show-yard, and are a good lot all round. The heifers are bred to the fine young bull, Golden Fame, 26056 (imported), one of the best in the land. In sending in a change for his advertisement Mr. Flatt writes: "I appreciate FARMING very greatly as an advertising medium. My herd now numbers about seventy, and amongst the lot are some very choice cows, heifers and bulls. My sales are increasing daily."

MR. JOHN CAMPBELL, Fairview Farm, Woodville, Ont., reports having so far a very successful lambing season. His Mansell ewes sired by the noted English rams, Fair Star and Montford Dreamer, have given over 150 per cent., mostly rams, and all are doing well. Lambs and shearlings of same breeding, all by Newton Lord, were first prize winners at the leading fairs last fall and in 1897. The Mills ewe, sired by Ruddington Eclipse, the *twelve-hundred-dollar ram*, is suckling a beautiful pair—ram and ewe—sired by The Best Type, which beat at Toronto in 1897 England's Champion ram, Darlington. Many orders are already booked for Fairview-bred Shropshires, and never before have probable orders for importing next July been so much in sight, and so early being arranged for.

We'll Help You



In all the painting you have to do, or direct, you are invited to consult us freely about the best ways of using THE SHERWIN-WILLIAMS PAINTS. Our experience of thirty years is at your service.

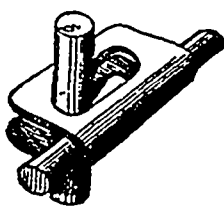
For anyone sending us a photograph or architect's drawing of his building, our artists will prepare a plan for painting, giving several artistic color combinations from which to choose. This is free.

We'll help you by sending you, free, "PAINT POINTS," a little illustrated guide to practical painting about the home, telling how to save money and get the best returns from using paint.

If you will tell us your needs when you are about to paint, we'll send you color cards of the paints that will suit you, and illustrations of buildings showing color combinations.

**THE
SHERWIN-WILLIAMS
COMPANY,**
PAINT AND COLOR MAKERS,
Canadian Dept.,
1 St. Antoine Street, Montreal





Farmers Want It

We Make It

and will have it

and want you to sell it

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

THE FROST WIRE FENCE CO.
WELLAND, ONT.

The Cossitt Bros. Co., LIMITED

The trade in cattle also has been considerable. Five bulls, nine to fourteen months old, were all placed a month ago. All told, Fairview has had an unusually good trade the past twelve months, and prospects for the opening season are very bright indeed. The poultry house burnt down in 1897 was rebuilt last year and stocked with a choice lot of Barred Plymouth Rocks. The cock in yard was winner of second prize at the Poultry Show held last December at Guelph, where his imported sire won first. See advt. for eggs, page 2 of cover.

MESSRS. JAMES McCORMACK & SONS, of Rockton, Ont., write: "Our stock are doing very well. We have sold a number of young bulls and have a few left. One of them, an eighteen months old bull, sired by Neidpath Jock, dam Sprightly 5th, is a fine deep-bodied 1 of good dairy type. We also have two last March calves, sired by Jock Morton, one of them being full brother to our first prize three-year-old cow at the Industrial. This calf won fourth prize at the same fair at Toronto for bull calf under six months. Our poultry are also doing well. We have some fine birds. At the winter shows they never failed to win. In Barred Plymouth Rocks our birds are second to none in Ontario. Our hen that won first at the great Ontario Silver Jubilee held at Toronto, in a class of forty-seven against the best birds in Canada and the United States, is as fine a Rock hen as there is to be found in any fancier's yard. Any one who desires to get eggs from the choicest of stock should look up our advertisement, as we are offering them at a low price for quality from the same matings we hatch from ourselves.

MESSRS. D. G. HANMER & SONS, the well-known breeders and importers of Shropshire sheep of Mount Vernon, Ont., are advertising for sale in this issue a large number of very choice shearing rams and ewes, some of which are now being fitted for coming fairs. The success of this firm at the leading Canadian and American fairs for a great many years past is a sufficient indication of the class of stock they offer. At last year's Industrial Fair their exhibit was particularly fine and was characterized as the best the firm had ever shown. In the matter of young stock this was especially noted, their pens of ram lambs being exceedingly strong and carried off a large share of the honors awarded. In spite of the fact that part of their exhibit arrived too late for entry and was, therefore, barred out, they took no less than twelve prizes, amongst them second and third on ram lamb, first, third and fourth for best two ewe lambs. At London they were still more successful, winning the honors for the best pair of ewe lambs and first on ram lamb in same competition as Toronto Industrial, and for all the special pens. Messrs. Hanmer expect to start for England in May to select ewes and stock rams to increase the firm's present flock, which has been greatly diminished during the past winter with the very heavy sales of lambs and ewes to the Western States, 200 ram and ewe lambs and over 100 ewes having been sold to buyers from Minnesota, Wisconsin, Indiana, Iowa, Ohio and Michigan. Mr. Hanmer states that he will be glad to bring stock from England for intending purchasers for a moderate commission. While in the old country he will visit all the best flocks and will make some selec-



The World Takes All
our output and calls for more
although we built and sold the unparalleled number of
189,760
McCormick Machines
in 1898.

The
McCormick
Harvesters and Binders,
Reapers,
Mowers,
Corn Harvesters,
Rakes,
Fodder Shredders,
are absolutely the Best Known to the Buying World.

McCormick Harvesting Machine Co. CHICAGO.

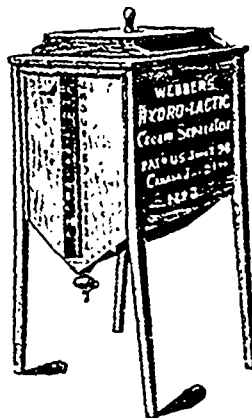
tions at the Royal for the Toronto Industrial Fair.

MESSEURS. JOSEPH YULL & SON, of Carleton Place, Ont., write: "Our Ayrshires, Shropshires and Berkshires are wintering extra well. We had great luck for heifer calves. Out of forty cows we had 32 heifer and 8 bull calves. They are the finest lot of calves we ever had, all sired by Jock of Burnside—1684—winner of first prize at Ottawa in 1888. We have sold one bull to J. R. Smith, of Portage la Prairie, Man.; one two-year-old heifer and one bull calf to John Aikenhead, Hartney, Man., and one bull calf to John Currie, St. Catharines, Ont. We have two litters of Berkshires. They are the real bacon type. Prospects were never better for purebred stock."

Mr. C. R. DECKER, Chesterfield, Ont., writes:—"My Berkshire herd have come through the winter in good shape; have about 30 head, several choice sows to farrow. Some good show stock have made a good number of sales through advertising in FARMING; can recommend it as a good advertising medium. Some of my recent sales are: Mr. D. B. McEachern, Cotswold P. O., 1 boar; Mr. D. Hamilton, V.S., Harriston P. O., 1 boar; Mr. Syrus Rickert, Manheim P. O., 1 boar; Mr. Syrus Rickert, Manheim P. O., 1 sow; Mr. Robert Chisholm, Ayr P. O., 1 sow in farrow; Mr. Caldwell & Co., Galt P. O., 1 boar and sow; Mr. D. Hamilton, Harriston P. O., another boar; Mr. Robt. Wilson, Princeton P. O., 1 boar; Mr. Hugh Kennedy, Almonte, 1 sow in farrow; Mr. N. P. Moyer, Jordan P. O., 1 boar and sow; J. S. Cowan, Newry P. O., 1 boar; Mr. Hugh Kennedy, Almonte P. O., 1 boar; Mr. F. D. Johnson, Blenheim P. O., 1 boar; Mr. J. D. Moore, Galt P. O., 1 boar; Mr. A. F. McGill, Neepawa, Man., 1 sow in farrow; Mr. Thos. Baird, Chesterfield, 1 sow in farrow; Mr. E. W. Sprell, Carholm P. O., 1 boar. John J. Durnouchelle, Windsor, 1 boar and sow in farrow.

Mr. WM HOWE, of North Bruce, Ont., writes: My stock are coming through the winter in fine condition and the young stock are arriving strong and healthy. I have recently purchased from Mr. J. E. Brethour, Burlington, a yearling sow of the Lady Ducker family. She was in farrow to Oak Lodge Royal King—3044—a first prize winner at the Royal last year, and has farrowed since arriving thirteen pigs, all of which she is raising. They are doing well and are not akin to any of my other stock. The young boars I am offering are a good lot as are also the sows in farrow. I enclose you a part of two letters received from Geo. W. Madison, East Greenwich, R.J., U.S.A., to whom I sent a young boar pig on the 13th February. Two of the young boars I now am offering are little brothers of this one.

Webber's Hydro-Lactic Cream Separator



Combines

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

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

Every farmer with two or more cows should have one.

PRICES, \$7.00 to \$14.00

(According to size)

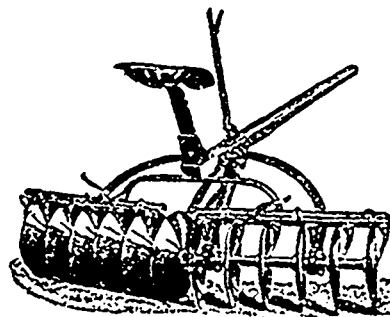
Write for descriptive circulars.
Agents wanted

J. F. GILL & CO.

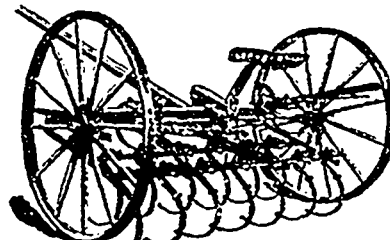
NIAGARA FALLS, ONT.

The Buffalo All-Steel Disc Harrow.

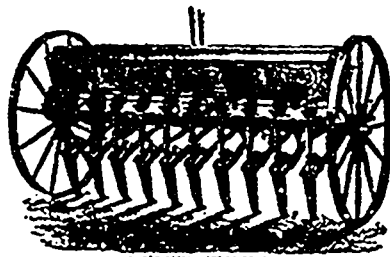
This is the only Disc Harrow made or sold in Canada, having independent, adjustable spring pressure upon the inner ends of the gang disc, allowing any amount of pressure to be thrown upon the inner ends of the gangs, by the foot of the operator. By this means a perfectly flexible action is secured and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



NOXON NEW BUFFALO PATENT ALL STEEL DISC HARROW



NOXON NO. 12 SECTORIAL SPRING TOOTH CULTIVATOR



NOXON STEEL HOOSIER DRILL

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 bitle-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.

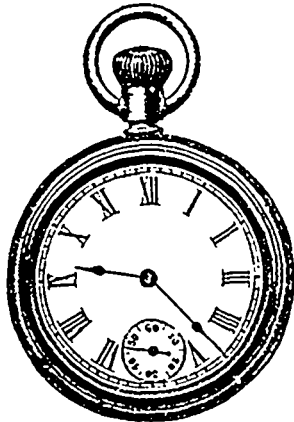
We also manufacture Binders, Reapers, Mower Rakes, Cultivators and Pulpers, as good as the best. Send for illustrated catalogue.

NOXON BROS. MFG. CO., (Limited)

Ingersoll, Ont., Canada

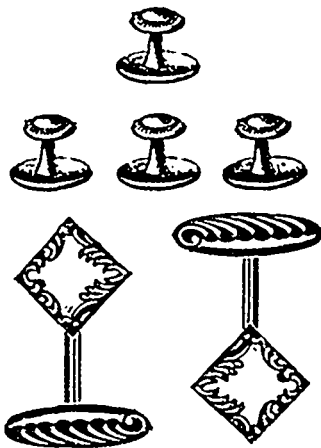
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Silver and Nickel Watches, Chains, Air Rifles, Blouse Sets, Rings, Knives, Forks, Spoons, Lace Curtains, Magazines, etc., to any one who will assist us to sell our goods.



This fine watch given free to any one who will sell 24 packages of our celebrated Rose-Bud Tooth Powder, or the same number of packages of our Black Ink Powder. The Tooth Powder is the finest that can be made, and should be used by everyone. From 3 to 6 packages can often be sold in one house.

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



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

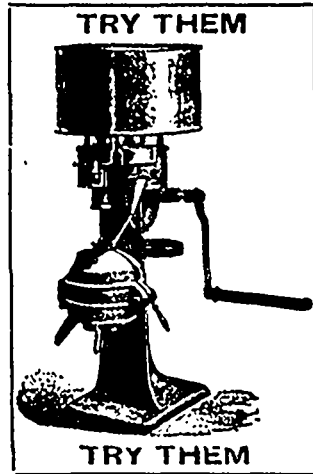
A strong Jackknife is given for selling 10 packages of either. Hundreds are now selling for us. Why not you? Everyone is pleased with the premiums given. No money is required. Simply send your name and address, plainly written, mention this paper, and we will send the goods and our big premium list.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

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ALEXANDRA AND MÉLOTTE
CREAM SEPARATORS

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MONTREAL



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

A Special Horse Number

NEXT week's FARMING will be of peculiar interest to every farmer in Canada. In view of the increasing demand for good horses no one interested directly or indirectly in that trade can afford to miss the splendid articles which will appear in that number. Horse breeders who would like to procure copies to send to their friends may do so on making application to this office on or before the 16th of April.

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

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

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

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

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

For further information or particulars, address

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

We want local agents in every Dairy District.

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HATCHED

90 to 100 per cent.
of the FERTILE EGGS in the
TORONTO INCUBATOR

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

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

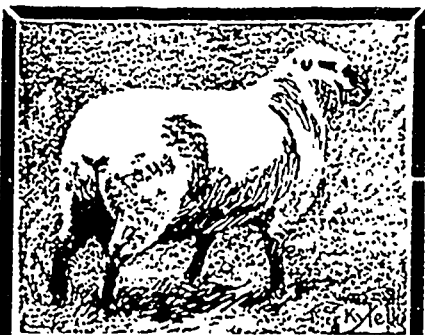
LUCKNOW POULTRY YARDS

Our matings for '99 are the best we ever owned in Buff and White Cochins, L. Brahmas, Buff Leghorns, Red Caps, S. L. Wyandottes, Black Minorcas, Langshans, Spanish and Javas. EGGS, \$1.50 per 13. Try our Barred Rock (imported strains), White and Brown Leghorns. Eggs, \$1 per 13. Pekin and Rouen Ducks. Eggs, \$1 per 11. We guarantee a good hatch, and safe arrival of eggs. d 1-25 Won 300 prizes the past season

J. C. LYONS, Lucknow, Ont.

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

MAPLE CITY POULTRY YARDS
W. A. WILSON, Proprietor, Box 551, Chatham, Ont. Eggs for hatching from birds imported from the best English and American breeders. Black Minorcas, Single Comb White Leghorns, Pekin Ducks, \$2 per 13. A limited number of Rose Comb Black Orpingtons Eggs, \$3.00 per 13.



Persian Sheep and Animal Wash

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

TICKS
MAGGOTS
GANGRENE
SHEAR CUTS
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AND SCAB.

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

The Pickhardt Renfrew Co.

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SHORTHORNS



SIX BULLS FOR SALE, fit for service, at reasonable prices. Write for particulars.

D. Alexander, Brigden, Ont.

Thorncliffe Stock Farm

Thoroughbred Clydesdale and Roadster HORSES
Jersey and Ayrshire CATTLE

FOR SALE

CLYDESDALE HORSES, JERSEYS and AYRSHIRE COWS from the finest milking families. Also 15 AYRSHIRE BULLS and 2 JERSEY BULLS from tested cows.

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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 80 per cent. of them Scottish Prize-Winners. A few choice

HACKNEYS

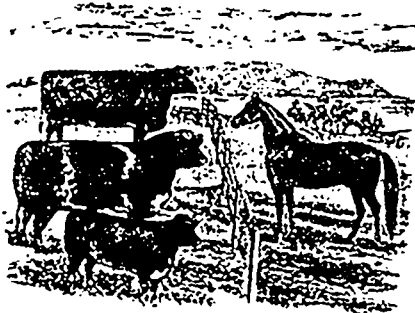
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JANESVILLE, WISCONSIN

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HAMILTON P.O. and TELEGRAPH OFFICE



OFFERS FOR SALE

Twenty-two Choice Shorthorn Bulls from three to fifteen months old. Persons requiring Show Bulls can be supplied from this bunch.

Twenty Cows and Heifers, served by imported bull Golden Fame-20056. Prices consistent with quality. Inspection invited.

BACON PIGS

LARGE ENGLISH BERKSHIRES

They suit the Farmer and please the Packer.

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

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

NORTH BRUCE HERD.

IMPROVED LARGE YORKSHIRES.

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

Write for prices.



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

BRONZE TURKEYS

...FOR SALE....

Also a YORKSHIRE BOAR, 16 months old bred by J. E. Brethour, Burford.

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WALKERTON, ONT.

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ONE HACKNEY MARE (imported)

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CHOICE AYRSHIRE BULLS; also EGGS FOR HATCHING, from the choicest matings in Barred Rocks, Black Spanish and Black Minorcas, at \$2.00 per 13. Rouen and Cayuga Ducks at \$1.50 per 11. A few B. Rock Cockerels left.

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MOUNT VERNON, ONT.

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PURE BRED.....

Shropshire Sheep

Offer for sale 60 head choice Shearling Rams, also 15 Shearling Ewes and 20 Shearling Rams, which are now being fitted for coning fairs. Expect to leave for England last week in May to select ewes and stock rams to increase present flock. Orders for all kinds of stock will be executed for intending purchasers at a moderate commission. Will make selections at the Royal for Toronto Industrial Fair.

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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.

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WINCHESTER SPRINGS, ONT.

BRAMPTON JERSEY HERD.

Full stock of A.J.C.C. cows, heifers, heifer calves and bulls. Ask for what you want. A number of young Berkshires.

B. H. BULL & SON, Brampton, Ont.

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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', \$1.

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 1,000 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. HOBSON, Secretary.
Parliament Buildings Toronto, Ont.

SECRETARY'S REPORT.

(Continued from April 4th)

	Lbs. each.
Bulls, under one year	1000
Bulls, one year and under two	3000
Bulls, over two years	4000
Cattle or horned animals:	
One animal	2000
Two animals	3500
Three animals	5000
Each additional animal in same car.	1000
Calves:	
Under six months	500
Over six months and under one year	1000
Cow and calf, under six months old, together	2500
Colts, under six months	1000
Hogs, sheep, lambs, or other small animals, in boxes or crates, actual weight.	

If extra values are declared weights and rates will be according to special classification.

Refer C.P.R. agents to Circular No. 84, signed G. M. Bosworth, issued April 1st, 1898; G.T.R. agents to Circular No. 353, signed J. W. Loud, issued February 14th, 1899.

The following comparison will show the difference between the former local rates and the reduced rates on registered stock. The rate from Toronto to Montreal in less than carload lots is 50c. per hundred.

Toronto to Montreal.

	Former rates.	Reduced rates.
Bull under one year	\$5 00	\$2 50
Bull, one year and under two	15 00	7 50
Bull over two years	20 00	10 00
Cows	10 00	5 00
Cow and calf	12 50	6 25
Stallion	20 00	20 00
Mare	10 00	10 00
Sheep (crated weighing 200 lbs.)	2 00	1 00
Hog (crated weight 250 lbs.)	2 50	1 25

It is not necessary to send an attendant in charge.

STOCK TO AND FROM ONTARIO EXHIBITIONS.

A large number of inquiries have

been received asking if purebred live stock shipped to exhibitions in less than carload lots are entitled to the half-rate for registered stock as well as being entitled to the free return of unsold exhibits.

The railway companies have concluded that this arrangement cannot be applied in the case of purebred stock shipped to exhibitions in Ontario or Quebec, and that the following arrangement must govern, viz.:

Shipments forwarded to exhibitions (specially referred to in circulars issued from time to time) must be charged at full tariff rates, and if shipped without change of ownership within ten days after the close of the exhibition will be returned free of charge from the point of exhibition to the station, or junction point, from which they were originally forwarded. If exhibited at more than one fair before being returned to the original shipping station, and having paid full tariff rates to the first point of exhibition, they will be carried thence to each subsequent exhibition at one-half tariff rates in each case, and will be returned free from the last exhibition as explained in the first portion hereof.

Releases must be executed relieving the Company of liability on the return journey in consideration of free transportation.

Men in charge of live stock will be passed free both going to and returning from the exhibition with car loads only.

FREIGHT RATES ON PUREBRED CATTLE, SHEEP AND SWINE IN CARLOAD LOTS FROM ANY POINT IN ONTARIO TO ANY POINT IN MANITOBA AND THE CANADIAN NORTH-WEST.

The officials of the Canadian Pacific Railway and the Grand Trunk Railway

have agreed to carry purebred cattle, sheep and swine, in car-loads, from any point in Ontario and Quebec, west of Montreal, at the rate charged on settlers' effects. The charge for a carload of purebred stock from any point in Ontario to any point in Manitoba and westward may be learned from any agent of the C.P.R. or G.T.R., and is published in "Tariff F. T., No. 45, Canadian Pacific Railway Special Through Westbound Tariff on Settlers' Effects." The rate for a carload of 20,000 pounds from any point in Ontario or Quebec, west of Montreal, to Winnipeg, is \$72 per car-load; to Regina, \$90; to Calgary, \$114; and corresponding rates to all western points. The rates for unregistered stock are: To Winnipeg, \$130; to Regina, \$164; and to Calgary, \$202; these latter rates were formerly the rates on registered stock also. When wishing to obtain the reduced rates refer C.P.R. agents to Circular No. 41, issued March 19th, 1897, signed G. M. Bosworth; G.T.R. agents to Circular No. 357, dated February 28th, 1899, issued by J. W. Loud.

MIXED CARLOADS MAY BE SHIPPED AT THE ABOVE REDUCED RATES.

The officials of the C.P.R. have recently granted the following additional concessions to shippers of purebred live stock to Manitoba and the Northwest: A mixed carload of purebred live stock (including not more than 10 head), and settlers' effects may now be carried at the above reduced rates provided that the goods are for a *bona fide* settler who is going to Manitoba or the Northwest for the purpose of taking up land and farming thereon. To obtain this privilege special arrangements must be made; this can be done by corresponding with the secretary.

Settlers' effects within the meaning of this tariff may be made up of the following described property for the benefit of actual settlers, viz.: Household goods and personal property (second-hand); wagons and other vehicles for personal use (second-hand); farm machinery, implements, and tools (all second-hand); lumber and shingles, which must not exceed 2,500 feet in all, or the equivalent thereof; or in lieu of, not in addition to, the lumber and shingles, a portable house may be shipped; seed grain; small quantity of trees or shrubbery; small lot live poultry or pet animals; and sufficient feed for the live stock while on the journey. All or any of these goods may form part of a carload if shipped in accordance with these conditions;

the remainder of the car may be filled with purebred live stock.

Under the arrangement it is not necessary to load all the animals comprising a car load at one point, i.e., part of a car may be loaded at London, part at Woodstock, part at Toronto, or at any other stations on the direct line between the starting point and the destination of the car. No additional charge will be made for a car so loaded except shunting charges, which are \$3 for the first stop and \$2 for each subsequent stop. The same stopping privileges have been granted for unloading.

One man will be passed free with each car load, and he will be returned from the destination of the car to the original point of shipment at one cent per mile, second class. All animals sent at the above rates must be purebred and shipped for breeding purposes only; and a certificate of registration for each animal must be presented to the agent at the shipping point. After being examined by the agent, each certificate will be returned to the shipper.

REDUCED RATES FOR SHIPMENT OF THOROUGHbred STOCK BETWEEN POINTS WEST OF LAKE SUPERIOR.

Thoroughbred cattle, sheep, and swine will be carried in less than carload lots at 50 per cent. less than the published tariff rates between stations on the Canadian Pacific Railway lines west of Lake Superior, Manitoba, and the Northwestern Railway, and the Great Northwestern Central Railway. The owner or agent will be carried in charge on the same terms and conditions as prevail in the handling of ordinary stock. Refer C.P.R. agents to C.P.F. Circular No. 842, signed Robert Kerr; M. & N.W.R. agents to M. & N.W.R. Circular No. 189, signed A. McDonald; G.N.W.C.R. agents to G.N.W.C.R. Circular No. 58, signed H. F. Forrest. These circulars were issued May 1st, 1896.

RATES FROM ONTARIO TO EXHIBITIONS IN MANITOBA AND THE WEST.

The C.P.R. will carry animals from Ontario to the Northwest for exhibition purposes at the reduced rate per car load, and will return the same at one-half the going rate. For instance, a shipment to Winnipeg would be charged \$72. If returned to the original point of shipment the rate would be \$36 in addition to the \$72, total \$108, from any point in Ontario and Quebec west of Montreal to Winnipeg and return. Corresponding rates to other points.

An attendant will be carried free with each car load.

Those who make a business of raising poultry for the market should try to contract with large boarding houses or restaurants for a regular supply. Then the birds can be grown and dressed to suit the market, and all the profits go to the grower.

FREE



FOR ONE DAY'S WORK

WE GIVE this fine WATCH, with a chain and charm, for selling 7 dozen gold-topped, enamel-backed Lever Collar Buttons at 10c. each, or a lady's watch and guard for selling 3 doz. *No Money Required. You run no risk. Write and we send the Buttons, post-paid, with our big Premium List. Sell the Buttons, return money, and we send watch, free of all charge. Unsold buttons returnable. Liberal commission if preferred. Be the first in your field. Send your name and address to-day. In writing, mention this paper.*

LEVER BUTTON CO., TORONTO, ONT.

GOOD SEEDS ARE THE CHEAPEST

BEFORE THE PUBLIC NEARLY 50 YEARS.

- 25c.—Garden Collection No. 3—8 Packets for 25c.**
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| Beet—Edmand's Blood Turnip. | Musk Melon—Green Nutmeg. |
| Carrot—Scarlet Intermediate. | Water Melon—The Boss |
| Cucumber—White Spine. | Onion—Large Yellow Strasburg. |
| Lettuce—Simmers Nonpareil. | Radish—Scarlet, Olive-shaped. |

- 25c.—Simmers' Flower Seed Collection.**
- 10 Packets Choice Fresh Flower Seeds, 25c. postpaid.
- Contains 10 beautiful varieties of easily-grown annuals in handsome coloured bags, with full directions for their culture.
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|----------------------|-------------------------------|
| Asters—Choice Mixed. | Pansy—Good Mixed. |
| Poppy—Double Mixed. | Double Imperial Pinks. |
| Sweet Mignonette. | Snapdragon—All colours mixed. |
| | Morning Glory—Mixed. |
| | Phlox—Splendid Mixture. |
| | Tall Nasturtium—Mixed. |
| | Sweet Peas—All colours mixed. |

- Collection D.**
- 15 Packets of Choice Vegetable and Flower Seeds, only 50c. postpaid.
- Full directions for their culture will be found on each packet.
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|---|-------------------------------|
| Beet—Edmand's early. | Asters—Choice Mixed. |
| Carrot—Scarlet Intermediate (stump rooted). | Poppy—Double Mixed. |
| Cucumber—Improved Early White Spine. | Sweet Mignonette. |
| Lettuce—Simmers' Nonpareil Cabbage. | Pansy—Good Mixed. |
| Musk Melon—Montreal Green Nutmeg. | Double Imperial Pinks. |
| Water Melon—"Seminole." | Snapdragon—All colours mixed. |
| Onion—Yellow Globe Danvers. | Morning Glory—Mixed. |
| Radish—Early Scarlet, Olive-shaped. | Phlox—Splendid mixture. |
| | Tall Nasturtium—Mixed. |
| | Sweet Peas—All colours mixed. |

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J. A. Simmers, TORONTO, ONT.

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Are thoroughly reliable, and better cannot be found. We MAIL FREE our **ILLUSTRATED SEED CATALOGUE FOR 1899** TO ALL WHO WILL SEND US THEIR ADDRESS

PLEASE SEND FOR ONE

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

WILLIAM EWING & CO.,

142 McGill Street, MONTREAL.

J. E. Richardson's Selected Seeds

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

VEGETABLE SEEDS

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

FIELD SEEDS

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

FLOWER SEEDS

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

LAWN GRASS SEED

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

Address all communications to

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FARMING

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

Published every Tuesday by THE BRYANT PRESS,

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The date opposite the name on the Address Label indicates the time to which a subscription is paid, and the changing of the date is sufficient acknowledgment of the payment of a subscription. When this change is not made promptly notify us. In ordering change of address, be sure to give the old address as well as the new.

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

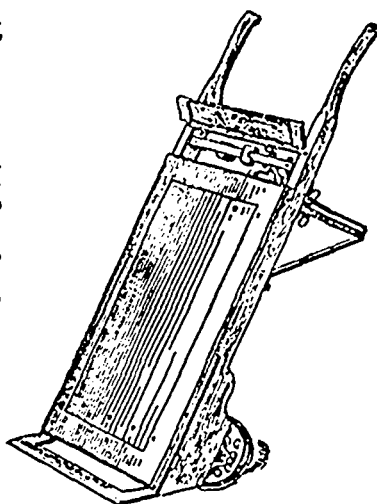
Every Merchant and Farmer

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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.

MARKET REVIEW AND FORECAST.

Office of FARMING, 44 and 46 Richmond street west, Toronto, April 10th, 1899.

Trade generally continues to hold its own well, and the prospects in wholesale circles are excellent for a good spring and fall trade. The exciting thing in financial circles is the panic in Wall street. A few weeks ago people went almost mad in their eagerness to invest in stocks. Everything went well till the banks put on the brakes, when there was a drop in prices, which made things exciting for a time. It did not last long, however, and the market recovered somewhat in a short time.

Wheat.

As we have frequently pointed out, so much depends upon the condition of the coming crop that it is hard to sum up the wheat situation. Up to the present it has been impossible to tell what the chances of the wheat crop are. Reports from various districts continue to be published, ostensibly by operators who wish to influence the market, and consequently prices have fluctuated according as these reports have been favorable or otherwise. There is no doubt, however, that the cold weather of the past few weeks has been unfavorable to a large part of the wheat belt of this continent, though we shall need warm, growing weather to be able to estimate fully the condition of the crop. Surface appearances are unfavorable, but if good growing weather comes soon and the roots of the plant are not injured, the outlook may yet be more favorable than would now appear.

The wheat markets appear to be in a waiting mood—hesitating because of the coming crop. Reports from Manitoba indicate inaction of the buyers and a disposition on the part of the farmers to hold. European markets have been fluctuating. The wheat market in this province has been rather weak and fluctuating. Preparations are being made for the opening of navigation and for the transportation of large quantities of wheat now in elevators, which may make things more active. The market here shows little change over a week ago. Holders are asking 67 to 68c. for red and about 68c. for white west. Goose is quoted at 65 to 66c. west, and No. 1 Manitoba hard, 80c. at Toronto, and No. 1 Northern at 77c. On the farmers' market here red and white bring 70½ to 71c., spring 69½c. and goose 66c. per bushel.

Oats and Barley.

The British oat markets have been somewhat irregular and fluctuating during the week. The Montreal market is steady at 30c to 30½c. high freights Montreal account. Sales of car lots have been made there at 34½c. in store. The market here is steady at 31c. for white east and 30c. west. On the

local market they bring from 35c. to 36c. per bushel.

Prices for malting barley at Montreal are 52c. to 54c. Prices here are nominal at 45c. to 46c. for No. 1 west.

Peas and Corn.

The English markets for peas are quiet and the demand slow, but holders are not pushing sales owing to small stocks. The market is quiet on this side owing to a falling off in the export demand. Quotations at Montreal are 72c. to 73c. in store. Peas are reported steady here at 65c. to 66c. north and west. On the local market they bring from 60c. to 62c. per bushel.

The corn market at Montreal is easier and lower at 43c. to 44c. for No. 2 American in store. American brings 41c. to 42c. on tracks here.

Bran and Shorts.

The Montreal market is firm, Ontario and Manitoba bran selling at from \$15.75 to \$17 per ton, shorts being \$17 for red and \$18 for white. City mills here are selling bran at \$14.50, and shorts at \$15.50 in car lots f.o.b., Toronto.

Clover and Timothy Seeds.

At Montreal the market is a little more active. Ontario timothy is quoted at \$1.75 to \$2, and American at \$1.25 to \$1.50; red clover, \$3.75 to \$4.50; alsike, \$3.50 to \$4.50; and Mammoth clover at \$4.25 to \$4.75 per bushel. Receipts at country points are small, the demands moderate, and the market is dull and unchanged. Prices at country points are \$2 to \$4 for alsike, \$2.75 to \$3 for red clover, and \$1 to \$1.50 for timothy. Prices on the local market, Toronto, are the same as last week.

Eggs and Poultry.

The London, Eng., egg market is quiet, but as stocks are not large prices have been very well maintained. At Montreal receipts have fallen off very much owing to continued cold weather. At the end of last week prices went up from 14½ to 15c. to 22 to 23c. Since then they have declined to 17c., and are now quoted at 18c. wholesale. There was quite a scare on in eggs on this market on Friday, when it was almost impossible for dealers to supply their customers. They were retailing at 20 to 22c., and may probably go higher unless receipts increase very largely. On the local farmers' market new laid eggs are quoted at 18 to 22c. per dozen.

Dressed poultry is quiet at Montreal. Fresh killed turkeys bring 10 to 11c.; chickens, 7 to 8c.; geese, 5 to 6c., and ducks 8 to 9c. The market here is quiet at about last week's quotations.

Potatoes.

Owing to a drop of 15 to 25c. per barrel in the New York market American buyers have bought very few potatoes in Eastern Canada during the week. This has created an easier feeling at Montreal, where 70c. is about the ruling figure. The market here is steady at 75 to 78c. per bag in car lots and 80 to 90c. out of store. These latter are the quotations on the local farmers' market.

Fruit.

The export of apples from Montreal during the week has been heavy but the local trade there is quiet at \$3 to \$4.50 per bbl. On the local market here apples bring from \$2.50 to \$4.

Hay and Straw.

There have been liberal arrivals of hay in Liverpool during the week and exporters have been paying from \$3.50 to \$4.25 at Quebec points. Quotations at Montreal for baled hay are as follows: Choice No. 2, \$5.50 to \$6.50, No. 2 ordinary, \$4.50 to \$5, and clover, \$4 to \$4.50. The market here is quiet at last week's quotations. On the local market prices are \$8.50 to \$10 for timothy and \$6 to \$7.50 for clover.

Cheese.

The cheese situation is still strong. There was estimated to be 43,000 boxes stored in Montreal on April 1st, most of which was held on English account leaving about 12,000 boxes unsold. At this time last year there was over double the amount of stocks on hand, and the same may be said of stocks in England. English buyers who, a few weeks ago, refused goods at 9½ to 10c., have since paid 11c. A year ago at this time prices were 7½ to 7¾c. for finest westerns. There will likely be a large quantity of fodder cheese made owing to the price being so good. Quite a number of factories in the west have already begun making, and it is expected that the quality will be much better than usual, owing to the better facilities for curing. Unless factories have good curing facilities they should hesitate to begin making too soon. When the price is good, however, it is almost useless to try to induce factories not to make early cheese, though we still think that, with present prices for butter, it will pay farmers better to make butter and keep the skim milk for raising calves. Two years ago April cheese brought 10 to 10½c., and it looks as if these prices would rule this spring.

Holdings at Montreal are asking from 11 to 11½c. for old goods. The total shipments from Montreal and New York from May 1st, 1898, to date show a decrease of 520,599 boxes as compared with the same period a year ago.

Butter.

The Trade Bulletin's special London cable of April 6 reads thus: "The market is quiet, and owing to light stocks, Canadian has not materially declined since my last cable. Finest Canadian creamery 92 to 93s. fancy 94 to 95s., seconds 85 to 88s." The Montreal market is quiet and easier, and prices have dropped from 1 to 1½c. from top prices a week or two ago. Quotations there for choice creamery are 19½ to 20c., good to fine 18½ to 19c., and fair 17½ to 18c. Western dairy is quoted at 13½ to 14½c. Very little fresh dairy butter is coming forward, and it may be if the cheese factories open up early that this article will be very scarce. A number of consignments of Argentine butter have arrived in England and have sold at 100 to 104s. for finest. The total shipments from

Montreal from May 1st, 1898, to date show an increase of fully 100,000 packages, while those from New York show a decrease of about 54,000 packages as compared with a year ago, making the net increase from both places 45,241 packages.

The market for creamery is reported steady here at 20 to 21c. for prints and 19 to 20c. for tubs. Receipts of dairy butter are little more liberal. Choice tubs bring 13 to 15c. wholesale and prints 15 to 16c. On the local market lb. rolls bring 18 to 20c. and large rolls 15 to 17c.

Cattle.

The cattle situation shows a somewhat weaker tendency owing to very large receipts at the big centres. The run of live stock at the cattle market here on Friday was large, there being 1,100 cattle. The quality was generally good. On account of the heavy deliveries on Thursday the feeling was easier in the morning, but considering the heavy receipts there was a fair trade.

Export Cattle.—Choice loads of heavy exporters sold at \$4.85 to \$5, light ones at \$4.70 to \$4.85. Choice heavy export bulls bring \$3.85 to \$4.25, and medium \$3.60 to \$3.75.

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

Stokers and Feeders.—Deliveries were more liberal on Friday with prices easy at \$3.50 to \$3.90 per cwt. Stock heifers bring about \$3, and inferior stock bulls about \$2.50 per cwt. Heavy feeders weighing from 1,000 to 1,150 lbs. are scarce, and worth from \$4.15 to \$4.30 per cwt. Feeding bulls bring from \$3 to \$3.25 per cwt.

Calves.—The calves offered were mostly of poor quality. Prices range from \$2 to \$7 each, and \$10 for choice veals.

Milk Cows and Springers.—Those offering of late have only been of inferior to medium quality and sold at \$25 to \$40 each.

Sheep and Lambs.

The demand at Buffalo is a little more active and prices higher. The run of sheep and yearling lambs continues light here. Ewes bring from \$3 to \$3.50 and bucks \$2.75 to \$3 per cwt. Prices for grain fed yearlings are higher, selling at \$5 to \$5.30 per cwt., while common barnyard lambs bring only \$3.50 to \$3.75 per cwt. Only a few spring lambs are offering, selling at \$2 to \$5 each.

Hogs.

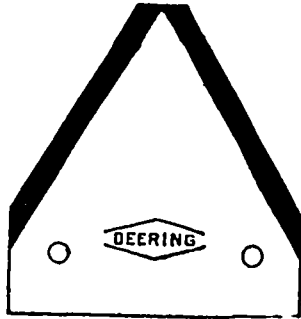
Prices for choice select bacon hogs, weighing from 160 to 200, are the same at \$4.37½ per cwt. Light hogs fetch \$4, and thick fat \$3.75 per cwt. Packers at Montreal have been buying more freely of light hogs at \$4.60 to \$4.75 per cwt. Heavy hogs there fetch only \$4.50. The *Trade Bulletin's* special London cable of April 6th re Canadian bacon reads as follows: "The market keeps dull at the decline cabled by me last week, and, although official quotations are no lower, holders are anxious to realize in face of liberal supplies."

Chicago Horse Market.

There was less demand last week for farm chunks and light plain drivers and such descriptions were lower, as a rule, some sales showing reductions of from \$8 to \$10 per head. Heavy draft horses sold very well, and so did good drivers. Good prices were obtained at the spring sale of American coach horses in the Dexter Park Exchange. There was a large attendance of local, domestic, and foreign buyers. The horses were exceptionally choice animals, selected from the best breeding sections of Ohio, Kentucky, Illinois and Iowa. Seventy-six horses brought \$1,860, an average of \$235 per head. An importation of French coach stallions, comprising a consignment of five head, were auctioned off for \$625 to \$1,100 per head. The lot brought \$4,425, and went to the breeding sections of the West. Reports tell of great losses of horses on the western ranges, April 6th.

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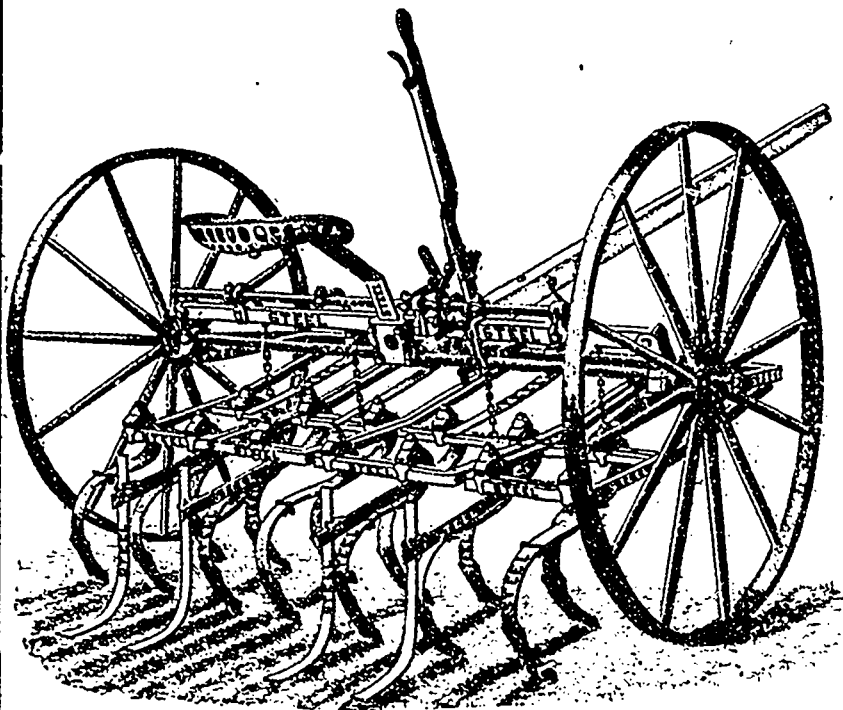
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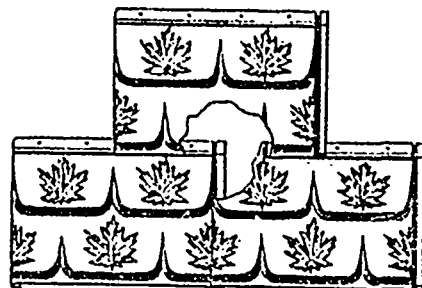
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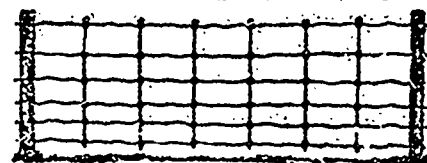


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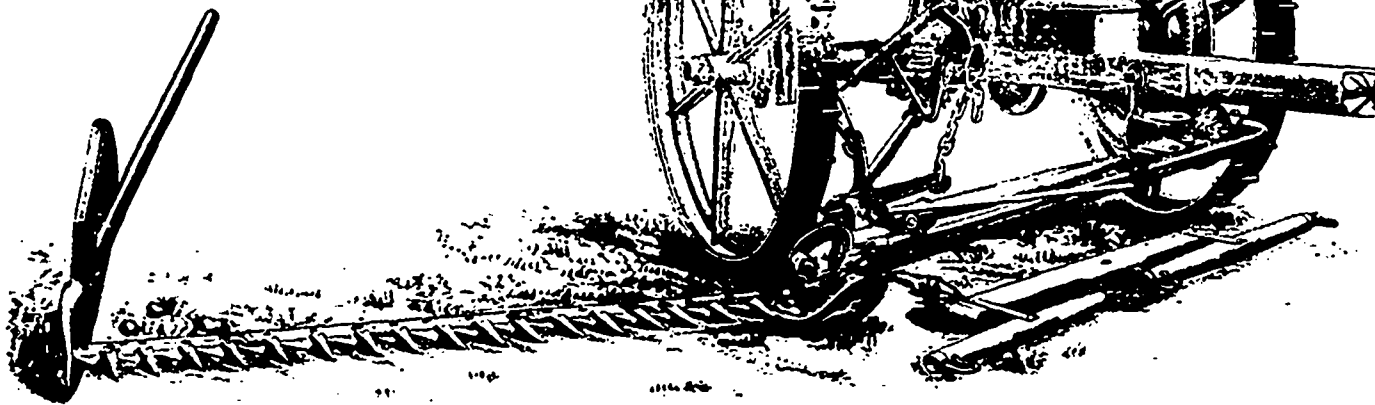
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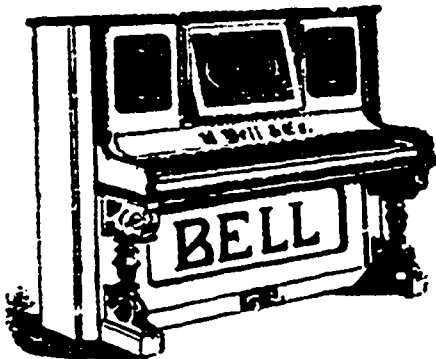
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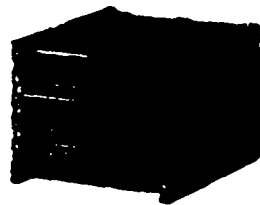
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