

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Covers damaged/
Couverture endommagée

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Cover title missing/
Le titre de couverture manque

Coloured maps/
Cartes géographiques en couleur

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Bound with other material/
Relié avec d'autres documents

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Additional comments:/
Commentaires supplémentaires:

Coloured pages/
Pages de couleur

Pages damaged/
Pages endommagées

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Pages detached/
Pages détachées

Showthrough/
Transparence

Quality of print varies/
Qualité inégale de l'impression

Continuous pagination/
Pagination continue

Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

FARMING

March 28th, 1899.

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.

Windsor Salt...

MANUFACTURED BY
THE WINDSOR SALT CO., LIMITED,
WINDSOR, ONT.

Horse Owners! Use COMBAULT'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

Trade Mark Reg'd

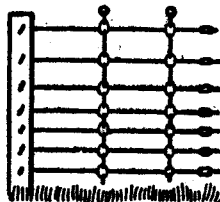


LUMP JAW NOW CURABLE.

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.



CANADA FENCE CO., London, Ont.

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

In Your

SPRING PLANS

Sample Design

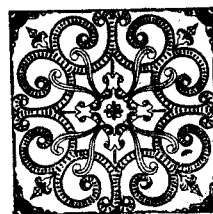


Plate No. 217.

Remember that our

Metallic Ceilings and Walls

Will give you better, economical service than any other interior finish.

The great number of artistic designs we make gives a choice to suit everyone's taste.

This finish is more handsome and durable than any other, and is also fire-proof and sanitary.

It is easy to apply, can be readily cleaned, and never cracks or drops off.

Write for full information or send an outline showing the shape and measurements of your rooms and get an estimate.

METALLIC ROOFING CO., Limited,

1192 KING STREET WEST, TORONTO.

Rapids Farm, Lachine Rapids, Quebec



W. W. OGILVIE, Proprietor.

Choice Imported Ayrshires

FOR SALE

SIX BULL CALVES,

Eight to ten months old, from Imported Cows from the Best Herds in Scotland. Any breeder requiring a bull for the coming season would do well to see them. We will sell them right.

Address ROBERT HUNTER, Manager, LACHINE RAPIDS, QUEBEC

HENRY ARKELL, Arkell, Ont.
 Importer and Breeder of
OXFORD-DOWN SHEEP
 Ewes in lamb to Royal Warrick and Imp. Hero 6th
 for sale.
PRICES REASONABLE.

A New Importation of
Clydesdale Stallions
 Arrived Oct. 31, 1898



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

HACKNEYS
 for sale. Address

ALEX. GALBRAITH
 JANESVILLE, WISCONSIN

FOR SALE

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

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

000

Address— d4-11
BOX 502, WOODSTOCK, ONT.

FIFTH ANNUAL

Canadian Horse Show,

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

The Armouries, Toronto, Canada

On Thursday, Friday and Saturday,

April 13, 14 & 15

1899.

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

W. D. FLATT

HAMILTON P.O. and TELEGRAPH OFFICE



.... OFFERS FOR SALE

TEN Choice Shorthorn Bulls, from six to twelve months; twenty-five Cows and Heifers served by imported bull, Golden Fame #20056-; also Large Yorkshires of choicest breeding and quality from Imported and Canadian-bred stock of True Bacon Type. Catalogue sent on application. Visitors met at G.T.R. or C.P.R. if notified.

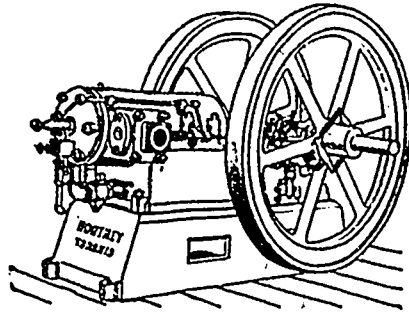
CHEAP CATTLE FEED

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

JAMES WILSON
 Monkland Mills, Fergus, Ont.

Northey Gasoline Engine

AN IDEAL FORM OF POWER FOR THE FARM



Simple, Strong, Economical. No handling of fuel. No smoke stack to throw sparks. No danger of explosion. Can be readily moved about from one place to another, and will do with the greatest ease all that the windmill or steam engine could do, at a far less cost.

Our booklet tells all about it. Write for it.

Northey Manfg. Co., Limited, Toronto

1008 King St. Subway



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

Dentonia Park Farm

EAST TORONTO
 (Coleman P. O.)

W. E. H. Massey, Proprietor

Address **DENTONIA PARK FARM, Coleman, Ont., Canada**

Dentonia Jersey Herd

Winners of the Herd Prize at both the Toronto and London Fairs last fall, also some thirty other prizes. The herd comprises fourteen head of imported cattle, many of them winners of valuable prizes on the Island; also some thirty animals carefully selected from the best Canadian herds, a Heifer and Bull Calves, also good Cows, always on sale.

Dentonia Trout Ponds

"Eyed" Trout Eggs, also yearling and two-year-old Brook Trout for sale. Market trout supplied in season.

READ THIS

W. R. BOWMAN
 Mount Forest, P. O., Ont.

Offers Yorkshire and Berkshire boars and sows weighing from 30 lbs. to 40 lbs. at \$8.00 each. Registered month Rock eggs, 5 settings for \$2.00, single setting, 15c.

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 Map'ehurst Farm, J. J. FERGUSON, Smith's Falls, Ont. Box 373.

COLDSPRING 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 akin. Am. booking orders for spring pigs at the lowest prices.

NORMAN M. BLAIN
 Coldspring Farm, St. George.

IMPROVED LARGE YORKSHIRES

Choice Boars fit for service from pedigreed prize-winning stock—the very best in Canada—all eligible for registration. Will be sold at a sacrifice if taken at once. Write at once for prices. Also choice lot of spring pigs from the celebrated boars Mollington Jones-3018 and Victor Hugo-3205, and first-class prize-winning dams. Pairs not akin or single at lowest prices.

L. ROGERS,
 d3 23] Cookville, Ont.

Hermanville Duroc Jerseys

TAMWORTHS
CROSS-BREDS

For Sale—A Litter, farrowed March 20th, dam "Empress," a beautiful sow, and first prize winner. Sire "Emperor of Hermanville," probably the finest stock boar of the breed in Canada. This litter will be ready to ship latter part of April, and will be delivered, all charges pre paid, to any express office in Ontario, Quebec, and Maritime Provinces, free, for \$1 each. Cash with order, or write for price f.o.b. Address,

HERMANVILLE FARM,
 HERMANVILLE, P.E.I.

See additional Stock Advertisements on Page 568.

FARMING

VOL. XVI.

MARCH 28th, 1899.

No. 30

A Great Help

MARYSVILLE, March 18th, 1899.

SIR,—Find enclosed \$1 to continue my subscription for 1899 I find FARMING a great help to me in working my farm.

Yours truly,

J. G. CAMPBELL.

Very Much Appreciated

MONCTON, N.B., March 18th, 1899.

Your paper comes regularly to hand, and is very much appreciated.

MRS. A. CLARKE,

Box 438, Moncton, N.B.

Agricultural News and Comments

During 1898 Canada sent to Great Britain \$1,258,500 worth of eggs, being an increase of \$288,500 over the previous year.

An Irishman has found out a new use for castor oil. He claims that by rubbing the castor oil into the udder after every milking and by feeding liberally he can convert an indifferent milker into a large producer of milk.

A very useful animal on any farm is the barn cat. The quantity of mice a cat with kittens will kill in a day is remarkable. Cats will kill most of the young rats, and also old ones occasionally. They appear to know just when to go and where to spring on them without waiting long.

Co-operative pork-packing seems to be moving along. Two such factories are talked of for Brantford and Listowel. At the latter place it is proposed to have a capital stock of \$37,500, divided into 1,500 shares of \$25 each, the stock to be allotted to farmers only, and no person to hold more than ten shares.

A good way to select seed is to spread it on a sheet of white paper and by the aid of an ordinary magnifying glass closely inspect it. Seed should be of the same uniform size and color and should be plump. Old seed is usually darker in tint, often insect eaten and consequently has lost some of its form and vigor.

In July, 1896, No. 2 wheat sold in Chicago market at 54c. a bushel. Until a couple of weeks ago it sold for 72c., a rise of 18c., or 33 1/3 per cent. in two and a-half years. From a table of the average prices of 107 staple articles, published by Bradstreet, it will be found that the whole list has advanced in price 39 9/10 per cent.

In all probability a very few years will see the end of the large cattle range in the Western States. The rapid influx of settlers, and the advance in agriculture seem to be responsible for the change that is gradually coming over the West. It is likely that cattle rearing on a large scale will be carried on, but the cattle will be confined in a smaller area and fed.

For nearly two years the Ohio Experiment Station has been conducting an investigation on tuberculosis in cattle. The station now has on hand a number of cattle which have reacted to the tuberculin test, several of which have been under inspection for two years, and are still apparently in perfect health. These animals will be slaughtered in a few weeks for the purpose of determining what their actual condition is.

The director of an experiment station in France has obtained good results from fattening calves on potato "fecule," or what is practically the refuse of potatoes used for manufacturing purposes. The test was conducted with seven calves. The first one was born on June 25th and the feeding began on July 3rd and was continued till November 7th. At the end of the test the calf realized 14s. 6d. more than the total cost.

Market Fees

The question whether towns and cities should collect a fee from farmers who utilize their market privileges has been a subject of agitation for a number of years. There was a time when it was the general rule to charge farmers who sold or offered for sale produce of any kind in the markets of our towns and cities a fee. But, partly by competition between rival towns, and partly by legislation, the practice has been partially or wholly discontinued in a great many places. Whether the levying of such a tax is just and right there is no doubt a great difference of opinion. But, looking at it as a matter of mutual interest and fair dealing between one body of people and another, the farmer would seem to have right on his side. If the farmer, when he goes on to the market square or into the market house of any city or town and offers his produce for sale were seriously interfering with the trade of the local grocer or butcher, there might be some reason for imposing this tax. But, instead of interfering, his coming to the town or the city is really a blessing, as it enables the tradesman to dispose of more of his goods and to get produce to supply his customers in the city. For this reason, among many others, we do not think it to be in the best interests of any town or city to place a tax upon the farmer who occasionally visits its markets in order to sell his produce. In fact, it would be much more in the interest of every town not only to remit all fees, but to throw out special inducements in the way of good market accommodation for the farmers when they come to market. A great many people in the smaller places complain of the farmer going to the larger places to buy their goods when, if the farmer visits their market to sell his produce, he has to pay a tax for so doing.

Some interesting facts in regard to this question have been compiled by Mr. E. Morden, secretary of the Welland Farmers' Institute. We find from these that twenty years ago the farmers of Ontario asked for free markets. In 1882 the Legislature passed an act which limited the powers of towns and cities in taxing farm produce. Grains, seeds, wool, lumber, lath, shingles, cordwood, dressed hogs, cheese, hay, straw and other fodders, were exempted from market fees. Butter, eggs and poultry can only be taxed when a convenient and a fit sheltered place for their sale is provided. In 1890 the Central Farmers' Institute recommended that beef and mutton by the quarter, vegetables, roots and fruits be added to butter, eggs and poultry, but nothing further has been done. At the present session of the Legislature we understand that Mr. German, M.P.P., of Welland, will introduce an amendment to the law to make the exemptions include all farm produce, and so it is quite in order to discuss the matter just now.

Among the many good reasons Mr. Morden gives why farmers should not be taxed in this way are the following:

Cannot towns and cities provide standing room for those who bring food supplies, and who in turn purchase their own supplies in the town?

Many towns and cities have voluntarily abolished market fees, much to the advantage of all except the market clerks.

If market fees are the proper thing why all these exemptions? If the man with a few turnips is taxed, why do they exempt the man with a fifty dollar load of dressed hogs?

Dressed hogs have too much influence. Shall all farm produce be taxed, or shall all farm produce be made free?

Shall we have discrimination or shall we have freedom?

The Dairyman's Anxious Time

Though winter dairying is now largely practised in many parts of Canada, dairymen as a rule have not adopted the practice of having the bulk of their cows drop their calves in the fall instead of the spring. Farmers who have tried this plan, and have had suitable winter conditions in the way of good stabling, feed, etc., claim that much more can be made out of the cows than by having them dropping their calves in the spring, as is the general rule. While we endorse this view in cases where the farmer has good cows, and has a warm, comfortable stable, with a liberal supply of good succulent food for his cows, we hardly think it wise for every farmer to do so. At any rate, it would be foolish to do so unless the proper conditions were provided for the care of the cow, as outlined above. However, as the large majority of our farmers have their cows calve in the spring of the year, a word of advice will be in season.

The dairyman's greatest anxiety is at calving time, and the better milkers he has the greater will be his anxiety. As a rule, a "scrub" cow that is good for almost nothing will come through the calving period without much difficulty. But a cow that gives a large flow of milk, and keeps up a good supply during most of the year, runs a far greater risk than the poor milker. The greatest danger will be from milk fever, a disease that once it takes root is hard to cure, but which can be prevented where rational methods are adopted. And here let us state that it would be wise to adopt preventive measures in all cases. When possible a cow should be dried off for a few weeks before the calving period. This can easily be done, except in cases where a cow is a very persistent milker, and gives a large flow of milk even up to near the time of calving. In such cases it might be injurious to check the flow of milk too suddenly, and a good cow might be spoiled. The average cow can be dried-off by reducing the grain feed, though not enough to cause any serious loss of flesh, and by gradually milking less thoroughly and less frequently.

After drying-off the grain food should be resumed, in small quantities at first, and of the right kind of food, so as not to starve the calf or prevent the cow from making bag. Bran in slop, oats, a little oil meal, and such like, are the kind of foods to give. Corn and all heating foods calculated to produce feverishness should be avoided. The cows should be watched to see that there is no constipation, and that the bowels move freely without scouring. Where necessary, some Epsom salts can advantageously be given a week before the calf is due. When calving time comes make the cow comfortable, with plenty of good bedding. Every farmer should have a box stall in which a cow may be put when she is about due to calve. If the weather is cold, chilling should be guarded against, and the drinking water should be warmed for two or three days after the calf is born. If there should be any symptoms of fever give a little acornite. As we have already stated, preventive measures are wise, and, if the cow has been properly prepared for the calving period, there is not likely to be any trouble.

Lonesome Without It

Glen Roy, Ont., March 12th, 1899

DEAR SIR,—I write to ask you to send FARMING to me for another year, as I am lonesome without it. It is a good paper, and I miss it. Enclosed find \$1 for my subscription.

ROBERT J. CAMPBELL.

Manures and Manuring

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

(Continued from last issue.)

Manuring is actually cultivation. Manure is labor. So working the soil as to set free some of the store of locked up fertility is rational work. Returning to the soil a portion at least of the material we remove by cropping and grazing is also rational work, but only a branch of the work. Treating the soil as a receptacle or storehouse into which we undertake to put a dollar's worth of stuff to get a dollar's worth out, and struggling in a bargain to obtain that first dollar's worth for fifty or seventy-five cents, so that we may score a profit on our labor, is neither rational or business like. Such lottery with nature is unworthy of the boasted agricultural intelligence of the closing days of the nineteenth century.

Let us, however, now look closely at the general result of stock feeding on our lands. We find the results are good up to a certain point. It was certainly better than grain growing as described. But, had we understood the true function of clover as a manure as we do to-day, we might have carried on the grain growing pretty successfully without stock, and perhaps more successfully than we have done it with stock. But we certainly obtained a better condition of the soil by having the animal manure for our lands. The animals fed on the farm return us most of the potash and most of the nitrogen which they take with their feed, but they return us actually none of the phosphoric acid they take except such portions as they fail to digest. They take it to build their bone, their nerve force, their ripening, and their powers of reproduction. And so like the grain and nearly every other living thing we have to deal with, except the birds, our domestic animals drain the phosphate from the soil. Do not deceive yourselves with the false theory that after their young bone is built they then return the phosphate. No such thing occurs, and in fact the actual necessity for phosphate becomes greater as ripening or age advances; of course within the limits of the producing period, after which animals are not usually kept. It is sometimes contended that this drain of phosphoric acid can be prevented by feeding concentrated foods to animals in much greater quantities than they require and so making them.

ANIMATED MANURE FACTORIES.

This is blind practice. It is a frantic endeavor to fit the animal to the land instead of adapting the land to our requirements. It is wasting energy, which can be more profitably applied to filling the pail or making beef, mutton or pork. It is this same blind practice which causes so much diversity of opinion and almost annually the changing of methods of cropping, cultivating and harvesting our crops, to try and fit them to the gradually, but surely, changing conditions of our lands. Throwing the blame on Providence and ascribing our difficulties to "climate changing" must stop somewhere, and the sooner the better. When farmers realize that they must study their soils and adopt means to restore them, at least to a condition of "virgin fertility," many of the ingenious plans and contrivances which make their lives miserable will pass into ancient history and the museum. I say that when farmers realize the true inwardness of manuring as the foundation of the whole agricultural structure we will not see the boys crowding to the cities and leaving the noblest and surest of all callings for the uncertainties of trade and commerce.

We may inquire now what indications there are of the waning fertility through the described denudation of the phosphatic heart in the land. If I seem to lay stress on this want of phosphate without good and sufficient reason I may well be condemned, but there are signs which he who runs may read, and those who desire to understand must throw away their smoked glasses and raise themselves to a higher plane of thought, and the egoist must lay aside his scepticisms. It gives me pleasure to be able to say that I

find most farmers thoughtful and anxious for information on this subject, though naturally timid in accepting what to them at first seems a theory, but to that class of people who doubt everything but their own existence, and whom I choose to designate as egoists, I make no appeal.

The signs most noticeable are perhaps, first, a hankering after bones and rotten wood by the cows.

We also know how unsatisfactory bones are as a food for cows, and we ask why do these animals whose stomach acids cannot dissolve bones make such frantic efforts to eat unnatural food?

I will answer you in the Irishman's way, by asking another question. What is bone? And I see I must answer my own question. It is largely phosphate of lime. The animal then wants phosphoric acid, the active principle of bone. Have you ever seen the phosphatic light on an old dead log in the woods after rain? Of course you have! There again is the reason the cow eats the dead wood—because of the development of phosphorus.

The weak-kneed pig fed on food wanting in phosphoric acid is another sign, and so is the old sow savagely devouring her young.

The loss of fertility in stock, the prevalence to disease, as, for instance, abortion and tuberculosis, are signs. The giving way of the teeth in the human race again points the way.

The changing of clovers from rich, digestible fodder to tough, herbaceous stuff only fit for rope, is another sign. The softening grain, and the soft yielding straw is still an indication. The clover sickness, which I have seen, has the loss of phosphatic fertility for its prime cause. The spread of disease among orchards because the trees are unable to resist is in the same line.

The shriveled grain and failure to get perfect ripening, except in the most favorable seasons, can be put to no other cause but the want of power to properly ripen. Turn where you will, and the signs stare you in the face.

(To be continued.)

Evergreens

By E. Morden, Niagara Falls South, Ont.

Evergreens are valuable because they are a distinct feature in the landscape for twelve months each year. Austrian and Scotch pine grow rapidly, and are very distinct. They may be made compact by shortening in, and are thus available even in small grounds. The Norway spruce in suitable soil will grow upwards about two feet each year. They make compact hedges when close planted and pruned. When planted from four to eight feet apart they soon make an effective wind-break. Many miles of Norway spruce hedge and wind-break have been planted in the Niagara district. In all parts of the country we find stretches of country through which the winds blow unchecked. A Norway spruce wind break would add much to the comfort of men and beasts for the distance of a mile or more to the leeward. It is strange that so few have even planted a wind-break for their orchards and buildings.

Where such is planted it is desirable to cultivate and care for them for a few years. Later on they will smother the grass beneath them. For ornamental hedges the cedar or arbor vitae are very suitable. Their fibrous roots enable them to be transplanted safely. They bear close shearing, and with this treatment give very nice hedges. The newer Rocky Mountain evergreens should be better known. They are very hardy, and are now quite moderate in price.

Douglas spruce grows very fast and has a distinct appearance. Concolor spruce has a coarser yet softer foliage, and has an appearance still more distinct. Colorado blue spruce is a slow grower, and has been well advertised. It varies in color, but even the poorer specimens have a color better than the Norway spruce. The Rocky Mountain silver cedar resembles the red cedar, but the silver cedar preserves its beautiful light green color through the whole

season. It is a slow grower and a decided novelty. The Swedish juniper is another beautiful novelty, which carries its peculiar light green color right through the winter.

The well-known Irish juniper, forming a columnar pyramid, is of a blue-green in summer, but is rather brown in the winter. The Dwarf Mountain pine, which forms a spreading bush, is very fine for a lawn. It is so little known that it might also be called a novelty.

Brood Mares

In a recent issue the *Horse Breeder* says: "Brood mares should have all the well-cured hay that they will eat when fed regularly three times a day. If, in addition to this, they are fed not less than six quarts of the best oats, there will be but little danger of getting them too fat. Where there is one brood mare in the country injured by overfeeding, there are many that are actually suffering from lack of nourishment. Those who cannot afford to feed liberally had better reduce their stock or go out of business altogether. What has been said of brood mares is equally true of foals of all ages, from weanings to maturity. Most farmers who raise only a few foals feed too sparingly."

Though these remarks are given from an American point of view they, nevertheless, have some bearing upon the rearing of horses in this country. How often do we see the brood mare on the average Ontario farm a subject of neglect and careless, if not injurious, treatment. Horse-breeders who expect to raise good horses by such methods have evidently missed their calling. Good horses cannot be raised except by giving the brood mare the best of care and attention. The remarks in reference to foals are also very pertinent. From the time a colt is born till it reaches maturity it should receive such treatment in the way of care and feed that will make it grow and develop into the highest type of horse. Of course good breeding and good treatment go hand in hand; but to neglect one or the other is only to court failure and get very unsatisfactory results.

Canadian Butter and Eggs in Great Britain

Recently a London, England, importing firm made some disparaging references to Canadian butter and eggs, which have called forth a vigorous reply in the *Canadian Gazette* of the same place from Prof. Robertson, Agricultural and Dairy Commissioner. He states that the cleanly and skillful methods of Canadian butter making and the cold storage accommodation on railroads and steamships make it possible for Canada to lay down in Great Britain a quality of butter unsurpassed. The trade is growing, and bound to grow, as Canada can produce butter of the very best class, but at a less cost than European countries.

With reference to Canadian eggs being a distinct failure in the British market, as claimed by the above firm, Professor Robertson says: "As a matter of fact, Canadian eggs are distinctly gaining in favor in nearly all the markets in Great Britain. The eggs are of uniformly large size, and carefully selected, and are reported to be landed in good condition as to freshness, cleanness, fullness and central position of the yolk. The Canadian egg case, with its cardboard compartments, is also preferred to the egg cases from other countries. Nearly all the eggs exported from Canada go to Great Britain. In 1896 the quantity of eggs exported from Canada to Great Britain was over five millions of dozens (5,585,725), and in 1898 that had risen to over ten millions of dozens (10,280,466).

A Welcome Visitor

PETROLIA, March 15th, 1899.

I highly appreciate your paper, and it is a welcome visitor to our house every week.

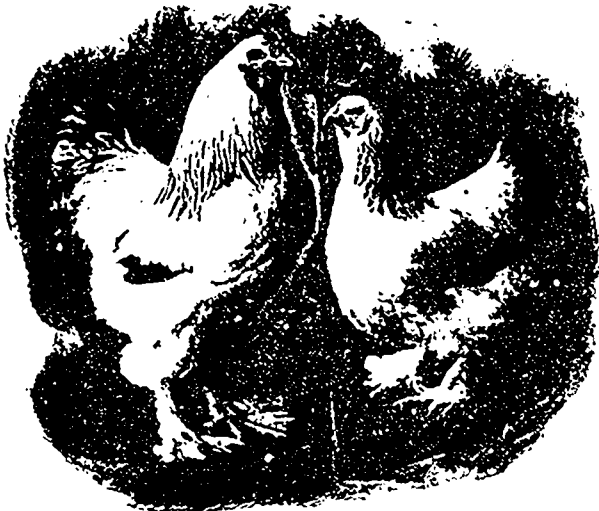
J. A. GLEDHILL.

Dairy Butter-Making

A Prince Edward Island lady sends us the following account of her experience in butter making :

In these days there is so much said about butter making that I feel as if I must tell my experience. I was married at twenty and began housekeeping without any knowledge of what I should do in order to make good butter, but being brought face to face with such a task I determined to make a fair fight, and I think that I have succeeded, but not without many a failure, which often had a very discouraging effect. We keep eight cows, which are a mixture of Holsteins, Ayrshires and Jersey, and in summer are kept in good pasturage with a plentiful supply of water. In winter they get hay and roots and water once a day. Along with these we always keep a supply of salt before them, both summer and winter.

We endeavor to have a regular milking hour of seven o'clock morning and night. The milk is strained through a cloth strainer consisting of two or three plies of cheese-cloth. These cloths, with all milking utensils, are kept thoroughly clean. After using they are first washed in cold water and then with warm and soap, and afterwards scalded. We keep the cream in a crock large enough to hold a churning, and which we also strain upon pouring into the churn in order to make sure of no hairs or dirt. We never keep the cream more than four days in summer



First Prize Pair of Light Brahmas, Ontario Poultry Show, Toronto, January, 1899, the property of T. A. Cox, Brantford, Ont.

or eight days in winter, and while gathering keep it at a temperature below 60°, and always save a little of the previous cream or buttermilk as a starter, using also a little coloring all the year. We use the "Daisy" churn and make a practice of commencing churning in summer at 62°, and get butter in from twenty five to thirty minutes. In winter we commence at 66° (if cows are with calf or farrow), if fresh calved at 63°, and get butter inside of an hour; we then use good dairy salt, putting 1¼ ozs to each pound of butter, but being careful not to overwork and still enough as it will be streaked if not worked enough. If we are going to print it and put it in parchment paper it should not be kept more than a week in this form, and in hot weather not that long, unless in a very cold place, as it loses its flavor and will get a little strong. The best way to keep butter, if for any length of time, is to put it in stone crocks and keep well pickled. If the wooden tub is to be used I soak it for two days in buttermilk, then wash carefully with soap and brush, afterwards scald for an hour or more, then air and cool when it is fit to hold the butter. I also take care to leave room for one or two inches of dry salt on top before putting on the cover.

But why should one person take all this trouble to have nice butter? When you go into our best stores you are told, "We are paying the one price for all dairy butter"; so that you receive no more than the person who has paid no attention to cleanliness, perhaps having gathered the

cream in an old wooden dish, both mouldy and musty, churned it between the hours of 2 and 4 o'clock of a hot July afternoon, and when the grease arrived left it to repose in the buttermilk until next morning to cool. Then after a hasty wash, a few handfuls of coarse, common salt are mixed in. The tub new from the Indian's hands gets a hurried rinse and then the butter thrown into it, when the article is placed upon the market and the owner receives as much as the maker who has taken the utmost care. Then I object to creamery butter because the milk comes from so many different stables, some of which are not the cleanest and where the milk receives its share of the surroundings, then, again, cows are not fed alike—some receive dirty water to drink and others good. It is not liked at home, but it will do for the creamery or cheese factory is the saying you often hear. Let me ask would you rather have butter made from milk that has not been properly cared for, or milk that has? Naturally you reply "butter made from the latter." Well, then, why does not this butter command a better price? I believe in home separators, as they will reduce the work, and the milk can be fed at once to the calves and pigs without the trouble of warming, which follows after setting in ice-water, which is our present mode of raising the cream. Give me the dairy butter made by reliable, clean, tidy people, and whose healthy, well-cared-for cows are the pride of the "Old Homestead."

NOTE.—Our friend's objections to the creamery are perhaps well taken. But it must be remembered that, while the best of butter can be made at the private dairy where the cows, utensils, etc., are looked after properly, there are so many different kinds of dairies that it is not possible to get large quantities of this butter of a sufficiently uniform quality to meet the needs of the export trade. The co-operative creamery is therefore a necessary factor in getting this uniformity so essential in butter shipped to the British markets.—EDITOR.

The Canadian Bacon Trade

Mr. George Mathews, President of the George Mathews Co., pork packers, etc., in a letter some weeks ago to the *Lindsay Post*, gives some advice to farmers as to the kind of hog required for bacon purposes, and from which we take the following :

Farmers have often said, "If the hogs you advise us to raise are worth more than the ordinary run of hogs, why don't you pay an extra price for them?" That is just what we are doing now, and we hope that the farmers will see that it is to the interest of their pockets to turn out only first quality hogs and get the highest price. This is a more serious question for our farmers than it is generally considered. By sending, as we are now doing, a large proportion of No. 2 and Stout Bacon to England we are over-loading that market with that article (No. 2 and Stout) to such an extent that it actually depresses the market value of No. 1 selection some shillings per cwt. under the price it would bring if it were not for the large quantity of unsaleable bacon (as it is called in England) going there from Canada. This statement is corroborated by the *Gracer*, the leading provision paper in England, in its issue of January 21st, '99. The following is the quotation: "The dealings in Canadian pea-fed have been similar to those in most other cures, being of a halting and timid character, and with the railway depots fairly choked up with later arrivals, a pressure to sell has been attended by the acceptance of less money. Never has so unmanageable a quantity of Canadian bacon been put forward at one time, and, worse than all, it consists of a greater percentage of unsuitable stuff than can easily be got rid of, and, with both the weight and volume of the imports increased, importers have despaired of meeting with purchasers at rates satisfactory to themselves."

It rests with the farmers to change this state of affairs by having their hogs the right quality and weight to make the first selection of bacon. I notice some speakers referring to this subject, both on the platform and through the press, say that the packers are always changing the selections so that the farmers cannot understand what they really do want. I have been in the export bacon trade for the last six years, and I know of no change excepting that in the late summer and fall we can take the hogs up to 220 as first selection, for at that season the hogs are not penned up, and having plenty of exercise do not get as fat when weighing 220 pounds as they do in the winter when weighing only 200 pounds. A large number of the hogs that we are now receiving weighing 200 pounds each are altogether too fat to make first selection bacon from. Then there is the hog with thick heavy shoulders—the reason the English dealers want sides with light shoulders is that the shoulder is of only small value as compared with the rest of the side. In Smithfield market, London, the

provision men have great stacks of smoked Wiltshire-cut bacon, some stacks of whole sides, others of sides with shoulders cut off, and others with shoulders alone cut from the sides after they have been smoked; if you inquire the prices they will offer you the shoulders for just about half the price they sell the remainder of the sides for. That is the reason they will not pay the highest price for sides with heavy shoulders.

Co-operative Experiments in Agriculture.

From a communication received from Mr. C. A. Zavitz, Director, Guelph, Ont., we take the following list of experiments to be carried on by the Ontario Agricultural and Experimental Union for 1899:

1. Testing nitrate of soda, superphosphate, muriate of potash, mixture, and no manure with corn.
2. Testing nitrate of soda, superphosphate, muriate of potash, mixture, and no manure with mangels.
3. Growing grass, peas and two varieties of vetches for green fodder.
4. Growing three mixtures of grain for green fodder.
5. Testing six varieties of corn for grain, fodder, or silage.
6. Testing four varieties of millet.
7. Testing four varieties of grasses.
8. Testing four varieties of clovers.
9. Testing three varieties of buckwheat.
10. Testing three varieties of spring wheat and one of spring rye.
11. Testing four varieties of barley.
12. Testing four varieties of oats.
13. Testing four varieties of field peas.
14. Testing three varieties of field beans.
15. Testing three varieties of Japanese beans.
16. Testing four varieties of carrots.
17. Testing three varieties of mangels and one of sugar beets.
18. Testing two varieties of Swedish and two of fall turnips.
19. Sowing peas at different dates to determine the amount of injury done by the pea weevil.
20. Planting potatoes the same day and five days after being cut.
21. Planting corn in rows and in squares.

Interested persons in Ontario who wish to join in the work may select any one of the experiments for 1899 and inform the Director at once of the choice made. All material will be furnished entirely free of charge to each applicant, but he will be expected to conduct the test according to the instructions sent with the seeds, and to report the results of his test as soon as possible after harvest.

Profit in Geese

By Samuel Cushman, Providence, R.I.

No branch of poultry culture pays better if intelligently followed, not even successful turkey growing. Geese require no expenditure for shelter, even in winter. May be pastured like cows, and a good goose, well managed, pays better than a good cow. They are not, however, suited to the town back lot, but to the well watered meadow or pasture, or to the farm.

HOW TO INSURE IT.

To make geese most profitable, as many goslings should be secured as possible, by keeping the goose laying and hatching the eggs under hens. The goslings should be grown as quickly as possible, and, like Pekin ducks, marketed when green or quite young. They should be sold in May, June and July, when they bring more and cost less than if kept until fall. To get the largest amount of goslings, prolific layers must be kept, as well as very active ganders, to insure a high per cent. of fertile eggs. Quick growing stock is also necessary. To get the highest price in market the goslings should be white plumage and have yellow bill and legs, as they look best and sell best dressed. To get good size the large breeds should be used.

BREEDS OF GEESE.

Toulouse or gray geese are most common of the pure breeds, and lay the largest number of eggs, but they are slow growers, and not having white plumage, being loose-skinned and dark, do not sell so well dressed. The ganders are also slow and sluggish (like Cochin fowl), and the per cent. of fertile eggs is often very low.

Embden or Bremen geese grow quicker, and being

white and having orange bills and legs, look the best when dressed, and the goslings sell at highest price of any pure breed. The Embden, however, is a poor layer; a goose laying no more than half the number produced by the Toulouse. They (unlike the almost non-sitting Toulouse) are persistent sitters and good mothers, and it is harder to keep them laying, and the number of goslings secured is therefore comparatively small.

Good Africans are as large as the best Embdens or Toulouse geese, grow faster and larger than either up to the time goslings should be marketed. They also lay the largest eggs, and almost equal the Toulouse in number produced. They are good sitters and therefore will not lay as steadily. It takes a few days to break them up after each sitting is laid. The African ganders (like Leghorn males) are the most active and attentive ganders of any of the large breeds. They may be given four times as many geese as the Toulouse ganders, and twice or three times as many as the Embden males and rarely fail to insure highly fertile eggs. The only drawback of this most valuable and important breed is its dark bill and skin, and the fact that it is harder than the others to pick. When dressed the white gosling leads it in price. A greater number of large goslings will usually be secured from pure Africans than from Embdens or Toulouse mated straight.

CROSSING THE BREEDS FOR BEST RESULTS.

By mating an Embden gander with African geese he will be more attentive than with either Embden or Toulouse geese, thus insuring a high per cent. of fertile eggs, while a majority of the goslings raised will come white in plumage and with yellow bills and legs. An African gander mated with Embden geese, while not so sure to give as high per cent. of fertile eggs as an African, will usually insure excellent results, a large number of goslings, most of which will be light or white. For Christmas geese this is the most desirable cross, and gives the largest light coloured goslings. The Toulouse gander in this sort of crossing has no place and can be dispensed with.

Failing to secure African ganders of the right sort, brown China or African brown China cross ganders may be used with about as good results. They are still more active than Africans, but are smaller, not so hardy to stand cold winters, and their goslings partake of their nervous, excitable nature, and do not take on flesh, or fatten as readily. However, where size of goslings is of little importance, or where a medium-sized bird is desired, and especially where no preference is shown whether goslings dress white or dark, or whether the bills or legs are yellow or dark, the brown Chinas, bred pure, will be the most profitable of all breeds. In this case their sharp, discordant, rasping voice will be the only drawback, but a constant thorn in the flesh of those in their vicinity.

SECURING THE STOCK.

Whether geese are crossed or bred pure, the right sort of pure bred geese must be secured. They can be bought cheaper in midsummer, before the best goslings are killed for the market. In any case, whether young or old are secured, it is best to have them on your place before December to have them do well the following season. Eggs may be bought in March and April and set under hens. There is as much difference in the laying ability of geese as there is in the milk-giving capacity of cows. By taking very little trouble the goose-breeder can know how many eggs each goose lays during each season, as she has a nest of her own. He can weed out the poor layers and breed only from the best, and in combination with generous feeding can build up in a few seasons a very prolific strain of layers. This has already been done with all the breeds mentioned. We have a Toulouse goose that last season laid 47 eggs, which, set under hens, hatched 41 goslings. Of these 37 were raised. Africans frequently lay thirty or more eggs. Good Embdens go as high as twenty or more. It all depends upon the strain. How they have been bred and managed.

The Composition and Use of Cattle Foods

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

(Continued from Feb. 21st issue.)

THE DIGESTIBILITY OF CATTLE FOODS.

A portion of every cattle food is dissolved by the fluids with which it comes in contact in the stomachs and intestines. This solubility, or digestibility, varies greatly with different foods. Of oat straw perhaps only forty pounds in a hundred would be dissolved, whereas of corn meal eighty-five pounds in a hundred would be taken into solution. That part of the food which is dissolved passes through the walls of the stomach and other portions of the digestive tract into the blood and is there used for the various purposes which have been mentioned. The undissolved or undigested portion of the food is rejected by the animal as useless. The grains, potatoes and roots are much more digestible than hay, corn fodder and the straws. The amount of food which is digested may be influenced in various ways. For instance, an animal will probably digest more of a food which is eaten with relish than of one which is unpalatable. The amount of digestible matter in hays and other fodders may be diminished by the fermentation caused by wetting and in other ways. Late cut hay is less digestible than early cut, and in general the younger the plant tissue the more digestible it is.

FEEDING STANDARDS.

These aim at an economical use of food nutrients by prescribing not only the amount but the composition of the digestible material which an animal shall consume in a given time. The feeding standards chiefly in use in this country are those formulated by German scientists. They recommend definite amounts of definite kinds of nutrients for each class of farm animals. For instance, the standard for a thousand pound animal at rest, neither doing work nor making growth, is 8.85 pounds of digestible material in one day's ration, .7 of a pound of which shall be protein. The standard for a milch cow is 15.4 pounds of digestible matter daily, the amount of digestible protein being 2½ pounds. Standards are also given for horses, sheep and swine and fattening animals of all kinds.

These formulæ should not be regarded as rules to be blindly followed independently of the available supply and the market prices of feeding stuffs, but they are suggestions for rations that are undoubtedly efficient and economical, provided market conditions render it advisable to follow them. A few of these standards are given in this connection.

In making up a ration which shall correspond to one of these standards, two main facts must be kept in view. First, the amount of digestible food; second, the nutritive ratio.

In making a mathematical calculation both of the nutritive ratio and the amount of digestible food, we must take into consideration both the composition of the foods which we wish to use and the digestibility of their several classes of nutrients. Tables of composition and digestibility are now available to farmers, and the mathematical operations involved in the necessary calculations are simple. These are illustrated in this connection.

Nutritive Ratio.—By the nutritive ratio of a food or ration we mean the relation of digestible carbohydrates to digestible protein. The amount of protein is expressed as 1. Thus the nutritive ratio of wheat bran is expressed as 1:3.5; that is, the carbohydrates are present in 3.5 times the quantity of protein matter. For milk production the nutritive ratio should be, roughly, 1:5 or 6.

To find the nutritive ratio of a food or ration, add together the amount of digestible carbohydrates, and of fat multiplied by 2¼, and divide the sum by the total amount of digestible protein.

For example, to find the nutritive ratio of corn meal we find from the table following that corn meal contains 6.5

per cent. of digestible protein, 65 per cent. of digestible carbohydrates, and 3.3 per cent. of digestive fat.

3 3 lbs. (amount of fat) multiplied by 2¼ equals 7.4 lbs.

7.4 added to 65. lbs. (amount of carbohydrates) equals 72.4 lbs.

72.4 divided by 65 (amount of protein) equals 11.1.

Hence the nutritive ratio is 1:11.1; that is, in corn meal the carbohydrates are 11.1 times as great in quantity as the protein.

To find the nutritive ratio of a ration or mixture of several foods requires more work, but it is accomplished in a similar manner. To illustrate: suppose we desire to find the nutritive ratio of the following mixture:

- 20 pounds corn silage,
- 10 pounds clover hay,
- 5 pounds corn meal,
- 5 pounds wheat bran,
- 2 pounds cotton-seed meal.

(1) Multiply the amount of each food contained in the mixture by the per cent of each digestible nutrient (protein, carbohydrates and fat) in each food.

(2) Add together the several products to obtain the total amount of each nutrient in the ration.

(3) Then proceed as in case of a single food; that is, add the carbohydrates to the fat multiplied by 2¼ and divide the sum by the protein.

The total digestible fat (0.84 lbs.) multiplied by 2¼ equals 1.89 lbs., and this added to the total amount of digestible carbohydrates (12.4 lbs.) equals 14.3 lbs. This divided by 2.73 lbs., the total amount of digestible protein, equals 5.3. Hence the nutritive ratio of such a ration is 1:5.3.

TABLE FOR FINDING THE NUTRITIVE RATIO AND AMOUNT OF DIGESTIBLE NUTRIENTS IN A MIXTURE OF SEVERAL FOODS.

Kind of food.	Pounds of food in ration.	Protein.		Carbohydrates.		Fat.	
		Per cent. digestible.	Pounds digestible.	Per cent. digestible.	Pounds digestible.	Per cent. digestible.	Pounds digestible.
Corn silage	Lbs. 20	1.1	.22	13.	2.60	.7	.14
Clover hay	10	8.4	.84	32.5	4.25	1.4	.14
Corn meal	5	6.5	.33	65.	3.25	3.3	.16
Wheat bran	5	12.	.60	38.9	1.94	2.9	.15
Cotton-seed meal	2	37.2	.74	18.8	.37	12.7	.25
			2.73		12.41		.84

(To be continued.)

The Western Canned Meat Trade

There is some agitation in the Eastern States owing to the allegations that preserved beef and mutton shipped in from the Western States and sold in the markets of the East has previously been treated chemically and tastes and smells of the laboratory. Before the production of cheap meats in the West and the opening up of the canned beef trade large herds of beef cattle were produced by the farmers of the New England States, who made money by supplying the New York and other markets. But since the introduction of the cheap Western meats, Eastern farmers have had to go out of the business and many farms which twenty years ago were worth \$100 per acre are now not worth \$50 per acre.

There is some hope on the part of the farmer of the Eastern States that there may be a large amount of truth in these allegations and that the consumer in New York and other large centres will come again to prefer fresh beef grown near his own door to the dressed article sent in from the West, when cattle-raising will again be a profitable business for the Eastern agriculturist.

QUESTIONS AND ANSWERS.

SOWING ALFALFA.

To the Editor of FARMING:

Would it do to sow this spring alfalfa or Lucerne on the stubble of last year's seeding of clover where it has missed with a light harrowing to cover the seed? Would it produce pasture this summer? Should it be sown separate or would it be better to mix some other grasses with it and how much seed per acre?

W. JOHN IRWIN.

Midland, Ont.,
March 16th, 1899.

Answered by Professor Day, of the Ontario Agricultural College, Guelph.

Replying to your correspondent, I beg to give it as my opinion that the plan he suggests re sowing alfalfa would most likely prove a failure. At any rate, it would not do for pasture the same season. Alfalfa is a comparatively tender plant during its first season, and as a rule should not be pastured.

Alfalfa requires a well-drained soil. It is best to sow in spring after thorough preparation of the soil, with thinly sown grain crop. From 15 to 18 lbs. alfalfa seed per acre is usually sufficient.

DISEASED SHEEP: ALFALFA.

To the Editor of FARMING:

Will you be kind enough to answer me the following questions through FARMING?

Last summer some of my sheep were afflicted with a kind of disease, or else it was the gnats that caused the trouble. Please give your opinion and what is the best treatment. The symptoms were as follows: The first we noticed were sores on the front legs just where the wool begins to get long, and sores around the eyes and on the ears. The ears were swollen and drooped down and have stayed so ever since, which gives them a very old appearance, and I think they have not done as well since. The treatment we used was to smear the parts afflicted with pine tar, which healed them and stopped any further trouble, but they look so old and dejected with their ears drooped down as if they were broken. I thought at the time it was the gnats that were worrying them, but a neighbor of ours says he had some afflicted the same way two years ago and their ears never got right and he thinks it is a disease.

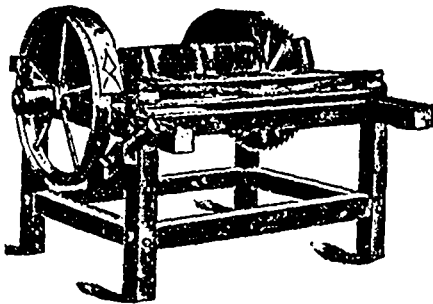
I have a piece of clover sod that was pastured with hogs last summer, and plowed down in the fall. I want to seed it with alfalfa. What is the best kind of grain to sow in order to get a good catch, and will the ground be suitable? It is rolling and dry and is heavy clay.

J. A. GLEDHILL.

Petrolea, Ont., March 13th, 1899.

The disease was probably some form of skin disease caused by a parasite. The drooping of the ears is, doubtless, a result of the disease. From what you state the sheep have recovered from the skin disease, and we should

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 loake frequently. The machine will cut easily 25 cords of hardwood a day.

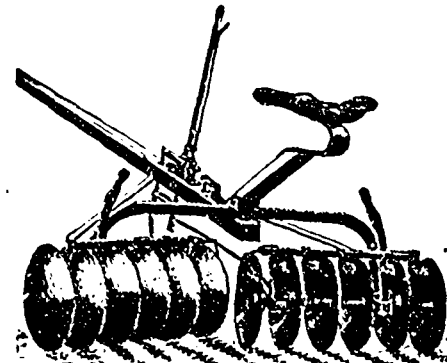
Yours truly,

PETER K. McLENNAN,
Cashion's Glen, Ont. March 17th, 1899

SHREWD, CAUTIOUS FARMERS

Decide in favor of

THE BISSELL HARROW



I have used others, but the Bissell is the best.

HENRY BLASHILL,
Lambeth, Westminster Tp.

I have two 7-ft. Bissell Disk Harrows—bought them after trying all others.

HARVEY DAVIS,
Tempo, Middlesex Co

A light team handles the 7-ft. Bissell Disk Harrow.
J. McLEOD,
Fanshaw, Ont.

T. E. BISSELL, : FERGUS, ONT.

FREE FOR ONE DAY'S WORK

WE GIVE this fine WATCH, with a chain and charm, 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.

TORONTO

THE

Best Job

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

THE CENTRAL BUSINESS COLLEGE, TORONTO

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

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

STRATFORD

NONE BETTER IN THE DOMINION!

Central Business College

STRATFORD, ONT.

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

W. J. ELLIOTT, Principal.

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-kvide Glory, 15c. pkt.
Sweet Corn—Cendal'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 Mesday (all sold).
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.

if

Address all communications to

E. RICHARDSON Seed Merchant and Grower PRINCETON, ONT.

judge that, if the sheep were kept in a thrifty condition under proper care, the ears would, after a time, come back to their normal position. Look to general hygienic conditions and proper feeding as described in answer to next question.

It is not considered good farm practice to sow clover after clover, and we think it would be better to try it on some other field. The remainder of this question is answered by Professor Day in the previous one.

PARALYSIS IN SHEEP.

To the Editor of FARMING:

A year ago I had a ewe that began to walk very stiffly in the hind quarters as if afflicted, as I thought with rheumatism. She got worse and could not move, lay down for some four or five weeks and then died. I did all I knew how to relieve her, but failed. I opened the carcass to see if I could discover the trouble, but failed to do so. There was a fully developed lamb in her. This season I have two ewes affected in the same way, only they have not been so long lying down as last year. One of them gave birth to a dead lamb, and died a few hours after, the other died yesterday, and was just beginning to lamb when she did so. I may say that when not able to get up, to look at them one would not suspect that there was anything wrong with them; they look bright and eat fairly well. Could you suggest what the trouble is, its cause and remedy?

J. HOLLINGWORTH.

Beatrice, Ont., March 23rd, 1899.

P.S.—Beside the ewes mentioned above, I have two other ewes that

Ewing's Selected Seeds

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

PLEASE SEND FOR ONE

Our Assortment comprises all the best varieties of Garden, Field and Flower Seeds, a 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:

..SEED GRAIN..

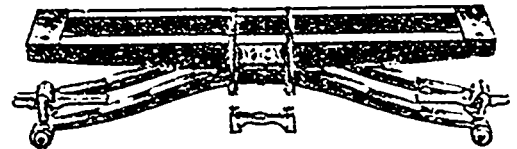
- | | |
|------------------------|-------------------------|
| Danish Island Oats | Common Six Rowed Barley |
| Imperial American Oats | Mandscheuri Barley |
| Poland White Oats | Oderbruger Barley |
| Early Russian Oats | Rio Grande Wheat |
| Siberian Oats | White Fife Wheat |
| Rosedale Oats | Speculation Wheat |
| Banner Oats | Goose Wheat |
| Early Dawson Oats | Canadian Beauty Peas |
| Second Early Peas | Russian Blue Peas |
| California Creeper Pea | Lakefield White Peas |
| Prince Albert Peas | Golden Vine Peas, etc. |

Our stock is grown from selected seed by men that make a business of growing seed grain. We have the Finest Varieties of Seed Grain in the Province. Write for Samples and Prices. All information cheerfully furnished

d 3-28

JAMES HEWER, Seedsman, GUELPH.

Carry your Stock and Farm Produce on Waggon fitted with the celebrated "XXX" Bolster Springs They are the only perfect spring made. In comparison with these all others are useless. Address: J. H. MORROW, General Sales Agent, Brighton, Ont. Special inducements to introduce where we have no agent.



RELIABLE SEEDS

Sell at a reduced price, but are full sized packets, same as we sell over our own retail counter at 5 cents each. Take your choice, either collection, remit us the amount, and we will guarantee safe arrival.

\$1.60. No. 1—VEGETABLE AND FLOWER COLLECTION—for \$1.00.

- | | | |
|--|---------------------------------------|--|
| 1 Pkt. Beet, Early Turnip. | 1 Pkt. Parsnip, Imp. Hollow Crowned. | 1 Pkt. each Summer Savoury, Sage, Thyme. |
| 1 " Cabbage, Charleston Wakefield, early. | 1 " Onion, Yellow Globe Danvers. | 1/2 Pint Corn, White Coby Sweet. |
| 1 " Cabbage, Lupton or Imp. Vanderzaw, late. | 1 " Pepper, Long Red Cayenne. | 1/2 Pint Beans, Golden-eyed Wax. |
| 1 " Carrot, Long Red Coreless. | 1 " Pumpkin, Japanese Pie. | 1/2 Pint Peas, Premium Gem. |
| 1 " Cauliflower, Extra Early Paris. | 1 " Parsley, Taber's Exquisite. | |
| 1 " Cucumber, Pearce's Imp. Long Green. | 1 " Radish, Scarlet Turnip. | |
| 1 " Cucumber, Pickling. | 1 " Radish, Long Brightest Scarlet. | |
| 1 " Celery, Giant Golden Heart | 1 " Salsify or Vegetable Oyster. | |
| 1 " Lettuce, Imp. Hanson. | 1 " Spinach, Giant Thick-Leaved. | |
| 1 " Musk Melon, Burpee's Melrose. | 1 " Squash, Essex Hybrid. | |
| 1 " Water Melon, The Fordhook | 1 " Squash, English Vegetable Marrow. | |
| 1 " Vine Peach. | 1 " Tomato, Pearce's Princess. | |
| 1 " Onion, Large Red Wethersfield. | 1 " Turnip, Golden Stone. | |

Above collection contains 29 pkts. Vegetable Seeds, 6 pkts. Flower Seeds, 1/2 pt. Sweet Corn, 1/2 pt. Wax Beans, 1/2 pt. Garden Peas, sent to any address, post paid.

No. 2—VEGETABLE SEED COLLECTION—50c.

- | | | |
|------------------------------------|--------------------------------------|---|
| 1 Pkt. Beet, Early Turnip. | 1 Pkt. Musk Melon, Burpee's Melrose. | 1 Pkt. Salsify or Vegetable Oyster. |
| 1 " Cabbage, Charleston Wakefield. | 1 " Water Melon, The Fordhook. | 1 " Squash, English Vegetable Marrow. |
| 1 " Carrot, Long Red Coreless. | 1 " Onion, Yellow Globe Danvers. | 1 " Tomato, Pearce's Princess. |
| 1 " Cucumber, Pearce's Long Green. | 1 " Parsnip, Imp. Hollow Crowned. | 1 " Turnip, Golden Stone. |
| 1 " Celery, Golden Heart. | 1 " Parsley, Taber's Exquisite. | 16 Pkts. sent to any address, post paid, 50c. |
| 1 " Lettuce, Improved Hanson. | 1 " Radish, Scarlet Turnip. | |

No. 3—VEGETABLE SEED COLLECTION—25c.

- | | | |
|------------------------------------|---------------------------------------|------------------------------------|
| 1 Pkt. Beet, Eclipse Turnip. | 1 Pkt. Cabbage, Charleston Wakefield. | 1 Pkt. Parsnip, Hollow Crowned. |
| 1 " Carrot, Scarlet Model. | 1 " Lettuce, Improved Hanson. | 1 " Radish, Scarlet, Olive-shaped. |
| 1 " Cucumber, Pearce's Long Green. | 1 " Onion, Yellow Globe Danvers. | 8 Pkts. for 25c, post paid. |

COUPON

The purchaser of either of the above collections can by cutting out this coupon and sending with order secure a packet of either "Giant Idaho Coffee Pea" or our "Grandest Mixture of Poppies"—mark an X opposite or over the one you want, and mail this with order.

JOHN S. PEARCE & CO., LONDON ONT.

Seedsman to the Canadian People

NOTE—This will only appear this week.

d3-28

BEST VALUE EVER OFFERED

N.B.—See next week's issue for Seed Grains, Danish Island Oats, Danish Sugar Beets, etc.

have dropped their lambs, one single, one pair, all dead. My flock of sheep this season is a very sorry looking lot, why, is more than I can say. They have, I think, had more than the usual amount of care during the winter, but I do not recollect ever having seen them looking in so unthrifty a condition.

J.H.

The trouble is probable paralysis, which may attack all species of animals about the time of parturition. Immediate treatment in such cases is often very unsatisfactory. The important thing is to find out the cause and have it removed. From what the writer states, and especially in his postscript, we are inclined to think that there may be something wrong with the surroundings of the sheep, or something wrong with the food, a deficiency of roots, etc. It is very common in this country to find sheep kept in too warm or badly ventilated sheds, or cooped up in some low building or room in which the atmosphere is bad and not fit for man or beast. Sheep like every other animal kept on a farm should be kept in an atmosphere where the air is pure. Then, too, many have the impression that a sheep should be kept in a place as warm as that required for a cow. But a sheep does not need to be kept very warm. It can withstand cold very well so long as it is kept dry, but ventilation is of the utmost importance. During the winter months sheep should be protected from wet snowstorms or rains, and then if kept in a cool, well ventilated place will usually thrive well with good food.

It is difficult in the cases referred to to prescribe any treatment that would be satisfactory without seeing the sheep. Where such treatment is required it is better to call in some qualified veterinary surgeon. As a rule, however, where some of the cheaper animals on a farm are sick, such as a sheep or a pig, it hardly pays to go to much expense to cure it. It is better to try and find out the cause of the sickness and adopt preventive measures as we have tried to outline in this reply.

MANURES AND MANURING.

In the third paragraph of Mr. Wallace's address in our issue of 21st March, page 537, a slight error in punctuation occurs. The paragraph should read: "The straw contains most of the potash removed from the soil by the crop, and it was usually returned to the soil. Apart from the fact that our soils are usually well stored with potash, even often to a greater extent than lime, no serious loss of potash occurred by such grain growing."

MILLETS.

At the Massachusetts Station Japanese "barnyard" and Japanese "common" were found to be the best millets for seed production. Seven-

BEFORE YOU BEGIN

to paint anything, a hitching post or a house, a barn door or a parlor floor, see that you have the right paint for that particular purpose. No paint has ever been made equally good for painting everything—buggies and houses and furniture. The greatest triumph of modern paint-making is the making of a different paint that looks best and wears best for each class of painting. It has taken years to find out just what ingredients and what proportions are needed for each. Each must be ground and mixed by special machinery with the utmost skill and accuracy. If you go by the labels on the cans of

THE SHERWIN-WILLIAMS PAINTS

you are sure of getting the best that can be made for your purpose. They have a reputation of 30 years' success, and every can is fully guaranteed. Our little book on painting will help you—it is free.

THE SHERWIN-WILLIAMS CO., Paint and Color Makers.
Canadian Dept., 21 St. Antoine St., Montreal.

LAND For Everybody

Free Grants of Government Lands

Cheap Railway Lands for Sale on Easy Terms

GOOD SOIL PURE WATER AMPLE FUEL

MOST desirable lands suitable for mixed farming can be obtained in the Old District along the line of the Calgary and Edmonton Railway, about fifty miles North of Calgary. Most desirable lands can be obtained in Southern Alberta in close proximity to the Calgary and Edmonton Railway and the Crow's Nest Pass Railway, suitable for mixed farming and ranching on both a large and small scale. North Saskatchewan also affords a splendid opening for intending settlers in the Prince Albert, Duck Lake and Roshera Districts, on the line of the Qu'Appelle, Long Lake and Saskatchewan Railway.

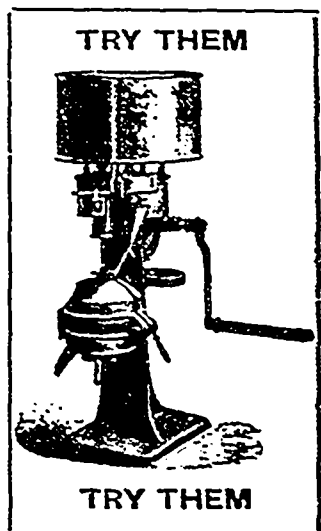
For full information concerning these districts, maps, pamphlets, etc., Apply to

OSLER, HAMMOND & NANTON,

Land Office, 381 Main St., WINNIPEG.

ALEXANDRA AND MÉLOTTE

Cream Separators



For Particulars apply to

R. A. LISTER & CO. Limited

579-581 St. Paul Street,

MONTREAL.

teen varieties were tested to see which produced the largest yield of hay, with the result that Japanese "White panicle" and Japanese "barnyard" stood first and second respectively.

ONTARIO VETERINARY COLLEGE.

The closing exercises of this well-known and valuable institution for the season of 1898-99 were held on Thursday of last week. The college has had a very successful year, and the graduating class compared favorably with the classes of previous years. As is usual a large number of the graduates are Americans, who evidently know a good institution.

Stock Notes

MR. GEO. B. ARMSTRONG, of Bowhill farm, Teeswater, Ont., is advertising a pure-bred Shorthorn bull, fourteen months old, for sale. He comes from good stock, as will be seen by reference to the advertisement.

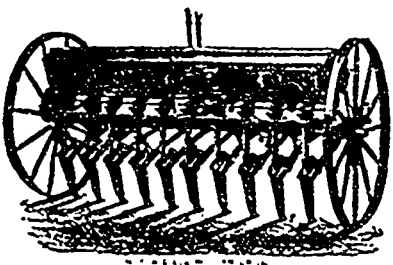
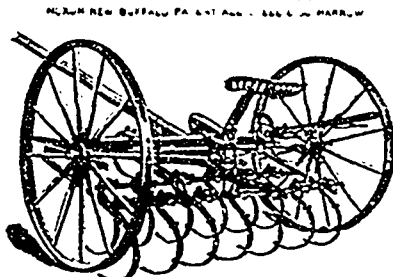
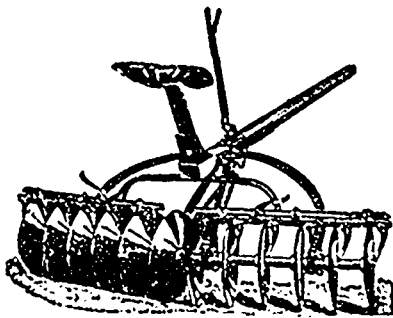
MR. T. A. COX, of Brantford, Ont., is not a little proud of his record as a prize-winner at the poultry shows. Any man who can win 495 times with the competition he meets in the poultry exhibitions of to-day is entitled to all the credit he is likely to get, and to a diploma as past grand master in the art of breeding and fitting poultry for show purposes.

In addition to being one of our largest breeders of purebred Tamworth swine Mr. John Bell, Amber, Ont., is a breeder of heavy draft and carriage horses. At present he has nine very choicely bred Clydesdale stallions and one hackney. The hackney is said to have no superior in his class.

W. R. BOWMAN, of Mount Forest, Ont., writes: "During the past few weeks sales have been so brisk that we are once more compelled to change our ad. Since January 1st, 1899, we have disposed of 12 Shorthorn bulls, 11 females, between 30 and 40 boars and sows, and have shipped stock to different points in Canada, including a good number to the Northwest and the United States. We are now booking orders for spring litters. We have three Yorkshire sows due to farrow shortly from which we hope to have something choice, and for which we should have ready sale. Our Berkshire sow, bred by Snell, of Edmonton, from Star One (imp.), is suckling a litter of ten which will soon be ready for shipment. We believe our success is due mainly to advertising in the farm journals."

MESSES. W. & H. JONES, of Mount Elgin, Ont., report that their stock of Poland China swine has never wintered so satisfactorily as it has this year. The sows are dropping good litters of strong, lengthy pigs, especially the yearling sow of '98. She had a fine litter of nine pigs on the 5th of March, all of them being strong and well. It is the finest litter they have ever had. The sire of the litter is Klondike, a litter brother to the grand sow, Lady Klondike, the pair never having been beaten in the show ring. They are in grand shape now, and they as well as their progeny will be able to maintain the reputation they have established and repeat their past successes in future competitions. Besides these Messrs. W. & H. Jones have several sows in pig and can supply any reasonable demand for choice Poland China stock. They have also a number of December and January pigs in pairs and twos which they will part with at reasonable prices. See their advt.

MR. JOHN DYMENT, of Hickory Hill Farm, Clappison, Ont., has a number of exceptionally good individuals in his herd this year. His stock bull, Drummond - 2036 - is a fine big fellow of the true dairy type. He has proved himself to be a sure getter and capable of reproducing the right kind of stock, his progeny, without exception, having turned out exceedingly well. Last year's crop of calves was in all respects most satisfactory.



The Buffalo All-Steel Disc Harrow.

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

The No. 12 Cultivator

IS A MARVEL OF SUCCESS. The only Cultivator made that both lines of teeth will cut an even depth in the ground. Examine it and you will see why. The only Cultivator with a movable tooth set so that the angle of the teeth can be regulated to suit any condition of soil. Pressure can be regulated to act differently on every section requiring it. The teeth are carried between the wheels instead of trailing behind, as in other machines, thus securing lighter draft. This machine is furnished with grain and grass seed box when required. It has reversible diamond steel points for the teeth; also extra wide teeth 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

"THE FAVORITE"



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

DAVID MAXWELL & SONS

ST. MARYS, ONTARIO, CANADA.

Some of them have gone to leading breeders in Canada and the United States at good prices and there are some of them left which are good enough to do credit to any herd. One of them from Drummond, dam Dandy—2223—is a particularly promising youngster. Dandy has a record of sixty-three pounds of milk in one day and has won first prize in the milk test. She is as fine a milker as one would desire to put a pail under. Mr. Dymont is in receipt of very encouraging reports from those who have recently purchased from him. Steele Bros., of Heather Lodge Farm, Glenboro, Man., report that Royal Chief of Hickory Hill has arrived at his new home in good condition, being apparently none the worse for his long journey, and that he has taken to his surroundings and feed better than any animal they have ever received from Eastern Canada. This promising young bull is a son of Drummond and Nellie Gray—2057—, the latter having a milk record of 62 pounds per day and a test of 5.2 when giving 58 lbs. of milk. She is also a first prize winner at the Provincial Dairy Show. Steele Bros. are natives of Ayrshire, Scotland, and claim to know the strain from which the stock originates and that is why they wanted to secure this young bull. They are expert breeders of Ayrshires and well able to handle the breed in a manner calculated to bring out their finest qualities. With such a sire as Royal Chief, they may be expected to produce a herd fit to compete with the best. We expect to hear favorable reports of this herd in the near future. Mr. Dymont's stock is doing well. He has a number of last year's calves to dispose of at reasonable prices according to quality.

IMPORTANT ANNOUNCEMENT.

Mr. D. Drummond has made arrangements with Mr. F.W. Hodson to take over his entire herd of dairy cattle and business situated at Myrtle, Ont. The herd consists of twenty-two pure-bred Ayrshire females and two bulls. At the head of the herd is Kelso Boy—6629—who is so well known to Ayrshire breeders throughout the province that no special mention need be made of him more than to say he has proved himself an exceedingly good sire and a successful show-yard winner. His dam, Maggie Mitchell (Imp.), was a successful prize winner in open contests and also the winner of the first prize in the dairy contest at the Gananoque Dairy Show held under the auspices of the Agricultural and Arts Association of the Province of Ontario.

Among the cows are six imported ones, three of which were bred by Mrs. Wilson, of Boghall, Houston, Scotland, and three by Walter Park, of Hatton, Bishopon, Scotland. There are also six very promising heifers descended from these cows. Five others were selected from Mr. Drummond's late herd at Petite Cote, Que. The remainder are animals selected from the herd of the late Mr. Thos. Guy. The foundation of Mr. Drummond's present herd has been very carefully laid with special reference to the milking qualities of the animals. The six imported cows are without exception excellent milkers. All have not been tested, but Cherry, of Boghall, the half-sister of Mattie, made in one week 20 lbs. 1 oz. of butter. Mattie, of Boghall (Imp.) 3329, made 75 lbs. of butter in five consecutive weeks. These are the only cows now in the herd that have been tested for a period, but Dorcas now three years old, a daughter of Mattie by Victor, of Boghall, was bought by Mr. Robert Davis, who tested her a few weeks ago and procured 15 lbs. of butter in 7 days. It is considered that there are several cows and heifers in the herd which under similar conditions would do as well or better than Mattie.

The animals purchased from Mr. Guy were specially selected for their milking qualities, and belonged, without exception, to Mr. Guy's best families, viz., the Gurtas, Dollys, Idalias, and Perfections. Mr. Drummond's herd, as it now stands, is a combination of what he considered the best milking animals contained in his late herd, that of Mr. Hodson, and that of the late Mr. Guy. Some time before Mr. Guy's death, when he knew his herd was to be sold, he selected a number of choice animals especially for Mr. Hodson's



HOTELS,
SCHOOLS,
LODGE ROOMS,
PUBLIC HALLS,
CLUB HOUSES,
STORES,
CHURCHES and
PRIVATE RESIDENCES

can be appropriately decorated with Pedlar's Steel Ceiling, not a substitute but superior to lath and plaster, will not crack and fall off, absolutely fire-proof, handsome in appearance. Estimates furnished on receipt of plans

Pedlar Metal Roofing Co.
OSHAWA, CANADA.

NURSERY STOCK IN VERITY!



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

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

A. G. HULL & SON,

(Mention this paper.) St. Catharines, Ont.

EVERY SUCCESSFUL farmer who raises fruits, vegetables, berries or grain, knows by experience the importance of having a large percentage of

Potash

in his fertilizers. If the fertilizer is too low in Potash the harvest is sure to be small, and of inferior quality.

Our books tell about the proper fertilizers for all crops, and we will gladly send them free to any farmer.

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

USE

Ulrich's Ensilage Corn

MAMMOTH WHITE
GIANT PROLIFIC
YE'LOW DENT
IMPROVED LEAMING

E. R. Ulrich & Sons
SPRINGFIELD, ILL.

Ask your dealer for samples and testimonials.

BINDER TWINE

FARMERS

PURE MANILA, 650 FT. TO LB.
SPECIAL MANILLA,
TIGER, STANDARD.

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

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

CONSUMERS' CORDAGE CO.,
LIMITED,
MONTREAL.

herd. These have since been carefully culled and none but the best retained in the present herd.

Mr. Drummond intends to make a specialty of high-class, heavy-producing Ayrshires, and, while due consideration will be paid to conformation, form, and the udder, special attention will be devoted to the production of heavy producers and cows capable of producing as large an amount of butter per week as possible.

The farm where Mr. Drummond will hereafter reside is now known as Glen Hodson, about two miles south of Myrtle Station on the C.P.R., and Myrtle Station on the G.T.R., and about two and one-half miles north and west of Brooklin on the G.T.R. This farm has been long noted as one of the best stock and grain farms in Ontario county, and has been celebrated for the excellent quality of the live stock produced thereon. As long ago as 1876, animals produced on this farm won the very highest records at the World's Centennial Exhibition, held at Philadelphia. The section where Mr. Drummond has gone to reside is one of the most noted stock sections in Ontario. Maple Shade Farm, the home of the Hon. John Dryden, joins this farm on the south. Mr. Arthur Johnston, Graham Bros., of Claremont, John Miller, of Brougham, Wm. Smith, of Columbus, are all within a radius of a few miles. In addition to breeding Ayrshires, Mr. Drummond has decided to breed Yorkshires, and has recently procured two excellent sows of the Mite family from Mr. Jos E. Brethour, of Burford, Ont.

We join with many others in wishing Mr. Drummond abundant success in his new home. The following is a list of the sales made at Mr. Drummond's dispersion sale, held on February 16th last:

BULLS.

VICTOR OF BOGHALL. (Imp.)
—1660— Calved March, 1893.
Buyer, J. Templeman, Montreal \$ 65 00
THE DON—8855— Calved October
14th, 1897. Buyer, R. B. Angus,
Montreal. 67 00

COWS.

1. LAURA OF BURNSIDE—7110—
Calved Nov. 20th, 1893. Buyer,
J. P. Dawes, Lachine. 105 00
2. LOPISA OF BURNSIDE—7118—
Calved October 20th, 1893. Buyer,
Senator Owens, Montabella, Que. 95 00
3. BABY RUTH—7116— Calved Sep-
tember 1st, 1893. Buyer, R. B.
Angus, Montreal. 155 00
4. FAIRY OF BURNSIDE—8106—
Calved May 23rd, 1895. Buyer, J.
Henry, Ottawa. 130 00
5. ADELA—6175— Calved May 4th,
1889. Buyer, F. W. Hodson,
Myrtle. 105 00
6. GLEN BENNIE—4811— Calved
April, 1888. Buyer, F. W. Hod-
son. 105 00
7. FANNY OF ORNSTOWN—4430—
Calved May, 1887. Buyer, J. P.
Dawes, Lachine. 65 00
8. NANCIE—6425— Calved March
20th, 1893. Buyer, F. W. Hodson
145 00
9. PATTEY—5444— Calved Octo-
ber 9th, 1890. Buyer, J. Brissette,
Pointe-aux-Trembles. 50 00
10. MINTA—7450— Calved Novem-
ber 7th, 1894. Buyer, G. R. Muir,
St. Laurent. 75 00
11. MISTAKE OF BURNSIDE—8179—
Calved Sept. 4th, 1895. Buyer,
F. Lawrence, Montreal. 75 00
12. TRIM OF BURNSIDE—8107—
Calved December 7th, 1895. Buyer,
Senator Owens, Montabella. 85 00
13. BURNSIDE MAGGIE—8065—
Calved February 11th, 1896. Buyer,
F. W. Hodson, Myrtle. 90 00
14. SNOWDROP OF BURNSIDE—8069
Calved February, 1896. Buyer,
J. Dundon, Quebec. 141 00
15. NELLIE OSBORNE OF BURNSIDE
—8507— Calved September 10th,
1896. Buyer, Wm. Wylie, Howick 415 00
16. PEARL OF BURNSIDE—8506—
Calved August 3rd, 1896. Buyer,
C. A. Archibald, Truro, N.S. 90 00

SEED PREMIUMS!

Field, Garden and Flower Seeds as Pre- miums for New Subscribers

NEW VARIETIES SEED GRAIN

New Zealand Oats.—Yielded 100 bush. to the acre last season. Price, 25c. per lb., \$2.50 per bush. Three lbs. free with one new yearly subscription at \$1. Half bushel free with three new yearly subscriptions at \$1 each.

Danish Island Oats.—Very productive. Yielded 900 bush for every 56½ lbs. seed. Price, 15c. per lb., 4 lbs. for 50c. Four lbs. free with one new yearly subscription at \$1.

White Hull-less Barley.—Of inestimable value to stock keepers as feed. Price, 25c. per lb. Two lbs. free with one new yearly subscription at \$1.

Mandosehurl Barley—Price, 75c. per

bush. One bushel free with two new yearly subscriptions at \$1 each.

Prussian Blue Peas.—Price, \$1.25 per bush. One bushel free with two new yearly subscriptions at \$1 each.

Canadian Beauty Peas.—Entirely new variety. Leads all field peas in point of productiveness. A beautiful pea. Price, \$1.25 per bush. One bushel free with two new yearly subscriptions at \$1 each.

Hungarian Bromo Grass.—The great forage grass of Russia. Price, per lb., 20c. Two lbs. free with one new yearly subscription at \$1.

In ordering bushel or half-bushel lots enclose 20c. extra to pay for bag.

POTATOES

The Pearce Potato. An entirely new variety. A great yielder, cooker and keeper. Flesh white, dry and mealy. Growth strong and appearance very fine. Price, 50c. per lb. One lb. free with one new yearly subscription at \$1. One peck free with three new yearly subscriptions at \$1 each.

The Great Divide Potato.—A fine variety for main crop. Price, 30c. per peck.

\$1.25 per bush. One peck free with one new yearly subscription at \$1.

Carman No. 3 Potato.—Large, handsome and remarkably productive. Price, 50c. per peck, \$1.25 per bush. One peck free for one new yearly subscription at \$1. One bushel free for three new yearly subscriptions at \$1 each.

GARDEN AND FLOWER SEEDS

Collection A.—Price, 50c. Free with one yearly new subscription at \$1.

Pkts.	Pkts.
1 Beet.	1 Lettuce.
1 Carrot.	1 Radish.
1 Celery.	1 Parsnip.
1 Cucumber.	1 Squash.
1 Cabbage.	1 Tomato.

Collection B.—Price, 50c. Free with one new yearly subscription at \$1.

Pkts.	Pkts.
1 Sweet Pea.	1 Nasturtium.
1 Pansy.	1 Wild Flower (gar.)
1 Phlox.	1 Stocks.
1 Dianthus Pinks.	1 Asters.
1 Balsam.	1 Mignonette.

Collection C.—Price, \$1. Free with two new yearly subscriptions at \$1 each.

Pkts.	Pkts.
1 Alyssum.	1 Beet.
1 Aster.	1 Cabbage.
1 Phlox.	1 Cauliflower.
1 Sweet Pea.	1 Cucumber.
1 Mignonette.	1 Lettuce.
1 Dianthus.	1 Celery.
1 Water Melon.	1 Carrot.
1 Musk Melon.	1 Radish.
1 Tomato.	1 Mango Melon.
1 Onion.	1 Parsnip.

Collection D.—Price, \$1. Free with two new yearly subscriptions at \$1 each.

Pkts.	Pkts.
1 Beet.	1 Onion.
1 Brussels Sprouts.	1 Parsley.
1 Cabbage.	1 Parsnip.
1 Red Cabbage.	1 Tomato.
1 Carrot.	1 Squash.
1 Celery.	1 Radish.
1 Cucumber.	1 Salsify.
1 Lettuce.	1 Sage.
1 Musk Melon.	1 S. Savory.
1 Water Melon.	1 Thyme.

SPECIAL OFFER.

Fourteen packets of the best selected garden and flower seeds. Price, \$1. Free with one new yearly subscription at \$1.

Pkts.

- 1 Beet, Flat Egyptian.
- 1 Cabbage, Early Winningstadt.
- 1 Cabbage, Autumn King.
- 1 Carrot, Scarlet Intermediate.
- 1 Cucumber, Long Green.
- 1 Lettuce, Curled Silesian.
- 1 Onion, Prize-Taker.
- 1 Parsnip, Hollow Crown.
- 1 Radish, Scarlet Olive.
- 1 Squash, Hubbard.
- 1 Tomato, Richardson's Creekside Glory.
- 1 Sweet Pea, Richardson's Princeton Mixture.
- 1 Pansy, Richardson's Giant Mixture.
- 1 Mignonette.

These seeds are selected from the very best stock, and are guaranteed by the grower to give satisfaction. Address

FARMING

44-46 Richmond Street West,

TORONTO, CANADA

17. FRT OF BURNSIDE—8510—Calved February 5th, 1897. Buyer, Dawes & Co., Lachine.....	70 00
18. LITTLE QUEEN—8511—Calved April 19th, 1897. Buyer, Dawes & Co., Lachine.....	75 00
19. AUNT SALLY—9370— Calved September 6th, 1897. Buyer, R. Reford, St. Anne's de Bellevue....	125 00
20. DOROTHY DEW—8852—Calved September 20th, 1897. Buyer, Guy Boyer, Lachine Rapids.....	53 00
21. BROWNIE OF BURNSIDE—9369—Calved February 20th, 1898. Buyer, Wm. Stewart & Son, Menie.....	50 00
22. MISS SANDILANDS—8934—Calved March 3rd, 1898. Buyer, J. N. Greenshields, Danville.....	57 00
23. MISHAP OF BURNSIDE—9915—Calved August 10th, 1898. Buyer, J. G. Clark, Ottawa.....	25 00
24. EVELYN OF BURNSIDE—9913—Calved August 20th, 1898. Buyer, J. G. Clark, Ottawa.....	57 00
25. HELEN GRACE OF BURNSIDE—9914—Calved August 25th, 1898. Buyer, J. G. Clark, Ottawa.....	57 00
26. BULL CALF, LORD MINTO. Two weeks old. Buyer, J. Whitaker, Morrisburg.....	20 00
27. BULL CALF, LORD KITCHENER. One week old. Buyer, J. G. Clark, Ottawa.....	35 00

Publishers' Desk.

Of Interest to Advertisers.—The issue of the Directory of the American Press for 1899, published by the large Newspaper and Magazine Agency of Lord & Thomas, Chicago, Ill., has just appeared. This neat little book, besides having all its usual interesting features, to wit: a complete list of all publications in the United States and Canada, contains many new and interesting features which testify to the enterprise of the compilers. This is the first Newspaper Directory to enumerate the several boroughs of Greater New York, it is also the first to list the papers published in Porto Rico, Cuba, Hawaii and Philippine Islands. This feature alone will make it of great interest to advertisers who desire to join in the new policy of expansion, by bringing their ware before the people of our new possessions. The book throughout evidences the care with which it is compiled, and it is bound to meet with the appreciation that it deserves.

A Prosperous Company.—In a recent issue we referred to the opening of the new factory recently completed by the Gould, Shapley & Muir Company, Limited, at Brantford. We are now indebted to the Brantford Courier for many interesting details concerning the business of this enterprising company. To show what pluck, enterprise, and a system of perfectly fair dealing will accomplish in the development of a business despite adverse circumstances, keen competition, and obstacles big enough to discourage any ordinary men, it is mentioned that in 1893—six years ago—the office staff of the company numbered two, to-day it is eleven. Then there were two travellers on the road, now the firm employ seven. Then the factory pay-roll showed 15 employees, to-day there are nearly 100, and everything indicates a further increase of business and a largely increased staff to meet its requirements. The company claim that they have now the most extensive and best equipped factory under the British flag for the manufacture of steel windmills, grain grinders, and wood pumps of all kinds, and that they can not only claim superiority in this respect to nearly all American firms, but can claim it over all in the quality of their goods. This is a fact of which all loyal Canadians should be proud. The new home of the company consists of a main building 265 feet long, with an average width of 60 feet, containing the office, stock room, sample and pattern room, the iron working machine shop, with erecting room and storage in the top, the shipping and packing department occupying three stories, the engine and the boiler room, stock room, paint shop and tin shop. To the west is a building 42 by 24 feet, containing the wood

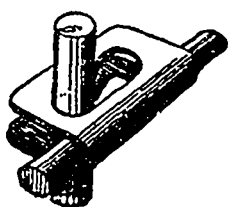
A PAGE OF HISTORY

The Wire Fence business has been so completely revolutionized by the introduction of

The Coiled Spring Page

that woven wire fence history begins and ends with it. There is more of it in use than of all other makes combined. Does not this attest its superiority? Before buying any other fence get our illustrated circular. Also '99 prices. They are way down.

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



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

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

THE FROST WIRE FENCE CO.

WELLAND, ON.

Patchall

WILL REPAIR

- | | |
|-------------------|---------------|
| Rubber Goods | Cloth Goods |
| Rubber Coats | Bindor Canvas |
| Rubber Boots | Grain Bags |
| Rubber Overshoes | Mail Bags |
| Half Sole Rubbers | Your Pants |

PATCHALL will not do impossible things. It will not make a worn out garment new, nor mend one run over by a railway train, but it will mend all as stated above, and nothing less. Eight patches, 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

DOMESTIC SPECIALTY CO.
Hamilton, Ont., Canada.

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 we did this suit the purchasers of this kind of apparatus, who have been buying apparatus that has not been satisfactory in use and has caused more people to delay the practice of spraying than all other causes combined?

Send for full particulars in our copy-righted catalogue on the diseases affecting fruit trees, vegetable etc., and their remedies.

Over 100 GOLD MEDALS AND THE HIGHEST AWARDS have been granted the Spramotor in 3 years.

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

Certificate of Judges' Award:

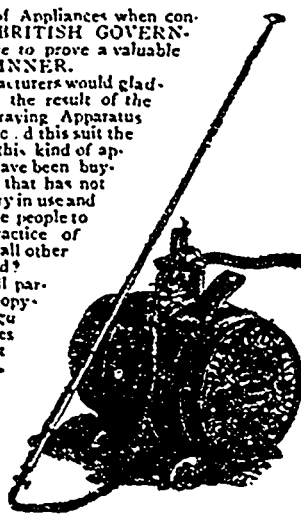
THIS IS TO CERTIFY that at the Contest of Spraying Apparatus held at Grimsby, under the auspices of the Board of Control of the fruit experimental stations of Ontario, in which there were eleven contestants, the Spramotor, made by the Spramotor Co. of London, Ont., was awarded First Place.

H. L. HURT, H. PETTIT, Judges.

Agents Wanted.

SPRAMOTOR CO.

357 Richmond St., London, Ont.

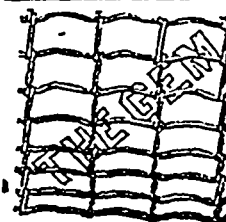


The JONES LOCKED WIRE FENCE



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

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



FENCE MACHINE

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

Highest grade WIRE for sale. Write for particulars. Agents Wanted.

McGregor, Banwell & Co., Windsor, Ont.

Patent Roller and Ball-Bearing Galvanized Steel

Wind Mills Towers and Flag Stuffs

"Maple Leaf" Grain Grinders. Iron and Spray Pumps. Send for New Illustrated Catalogue.

GOULD SHAPLEY & MUIR CO. LIMITED
BRANTFORD CAN

working machinery and bee supply department. Adjoining the bee supply department is the blacksmith shop and wheel room 50x90, with dry kiln in the west end opening into the woodshop. Next to the east is the galvanizing room, 48x50, and the grinding room, 20x50. The moulding shop is 64x68 feet and is an entirely new building. There are fire walls between each department and modern appliances for protection against fire in every department. To the firm belongs the distinction of being the first in Canada to adopt the manufacture of steel windmills, and also the credit of improved designs of great value and of distinctively Canadian origin. Among these are the Maple Leaf Grain Grinder (patented). The Steel King pumping windmill with sprocket chain drive (patented), the Ideal Steel Flag Staff (patented), the Gearless Fanning Mill (patented), besides minor points of excellence. The Stover Mfg. Co. of Freeport, Ill., one of the strongest windmill firms in America have made arrangements with the firm to make their "Steel King" pumping windmill under patent.

The trade in all the goods is constantly growing in every part of Canada and is capable of greater development. Shipments of windmills and grinders have also been made to Chili and Argentina, South America, as well as to South Africa and Australia. Recently a carload of bee supplies worth nearly \$3,000 was shipped to Great Britain, and another order is being completed for the same market. It is only necessary to mention the names of the men at the head to account for the great success which the firm has achieved. Mr. E. L. Gould is president, and also president of the Gould Bicycle Co., the almost phenomenal success of which is well known to our readers. Mr. W. H. Shapley was formerly superintendent, but is now connected with the bicycle industry, and gives nearly all his time to it. Mr. John Muir, vice-president, shares the active management with Mr. Henry Yeigh, the secretary-treasurer. He is a thoroughly practical man and knows every requirement of a farm implement. Many improvements in the firm's line of goods owe their origin to his experience and practical knowledge of machinery.

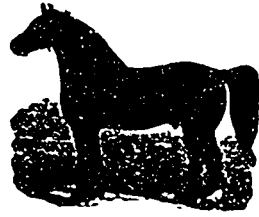
Mr. Harry Yeigh, the secretary-treasurer, is perhaps as well known to the customers of the firm as any of its officers, and to his wise and prudent business methods and fair manner of dealing may be attributed no little share of the company's success. It has been said that the initial letters of the firm name stand for "good sound management," and there is no doubt that both Mr. Muir and Mr. Yeigh are men of considerable breadth of view, and are capable of shaping a policy which will ensure satisfaction to everyone having dealings with the company, and this is the fundamental principle on which every successful business is based. The name of Mr. A. F. Holtermann, the manager of the bee supply department, is familiar to the readers of FARMING. The bee-keepers of the Dominion may be sure of getting their requirements filled satisfactorily at his hands, for if there is any man in America better qualified than any other to know what their requirements are that man is Mr. Holtermann.

A Special Offer.—Readers of FARMING will please note the special offer made in the advertisement of Thom's Implement Works, Watford, Ont. This firm is well known in most districts in all parts of Canada, but there are, no doubt, some localities where the exceptional merits of their machines are still unknown. In order to introduce their implements into these localities, the firm are willing to make it interesting to purchasers of them—such is the confidence they have in the machines.

Windmills.—There is scarcely a department of mechanical engineering in which more marked improvement is to be found than in the construction of windmills and in their application to the uses of the farmer as motive power. The up-to-date windmill of the last years of the 19th century is a perfect thing, presenting many economical and practical features not existing in other power machinery. And it is so constructed as to be available for service on the farm under conditions which would render other machines practically use-

Griffiths' Veterinary ...Menthol Liniment

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



IT CURES

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

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

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

Sold by Druggists everywhere—
25 and 75 Cents

The GRIFFITHS AND MACPHERSON CO.

SOLE PROPRIETORS

TORONTO and VANCOUVER, B.C.

FREEMAN'S Double Strength FERTILIZERS

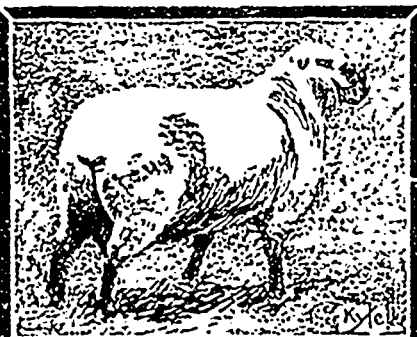
GREAT
REDUCTION



IN
PRICE

Catalogue Free

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



Persic Sheep and Animal Wash

For the complete and effectual removal of all insects or vermin peculiar to sheep and cattle. Powerful, without being harsh; immediate in effect, without any irritating effects; it leaves the animal refreshed and in good spirits after use, does more than destroy the pests, it completely removes all traces of their attacks—healing sores or boils, curing open sores and leaving the skin whole and sound. Mr. G. A. Brodie, a prominent stock-raiser of Beithers, Ont., used it with great success in castrating lambs, the wash healing the wounds rapidly and keeping the maggots away. He considers it the most effectual wash in the market, and heartily recommends it to farmers generally.

If your dealer hasn't it, write us for it, and tell us of anything special in the ailments of your flocks or herds and we'll advise you how best to use it.

The Pickhardt Renfrew Co.

(LIMITED)

STOUFFVILLE, ONT.



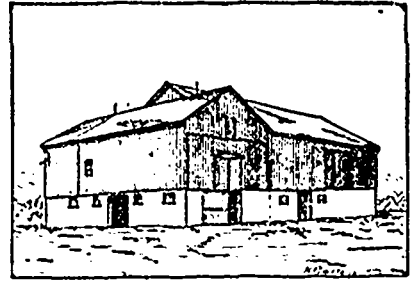
Established 1841.

53 Years in Use.

WORK DONE WITH

Thorold Cement

SPEAKS FOR ITSELF



ILDERTON, ONT., MARCH 9th, 1899.

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

DEAR 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 if THOROLD, ONT.

Important Change in Nursery Firm

Owing to the increased demand for Nursery Stock the undersigned has decided to enlarge his business, and for this purpose has taken in an energetic partner, and the Dominion Nurseries will hereafter be run by Smith & Reed. We propose, as in the past, to offer trees direct to planters at reasonable rates, guaranteeing them to come in good condition and to be just what they are represented. Thanking the farmers for their past liberal patronage we respectfully solicit a continuance of the same. Send for Catalogue—Free.

SMITH & REED

(Successors to A. M. Smith)

Dominion Nurseries, - St. Catharines, Ont.

Winona Nursery Co.

OFFERS FOR
SPRING of 1899

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

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

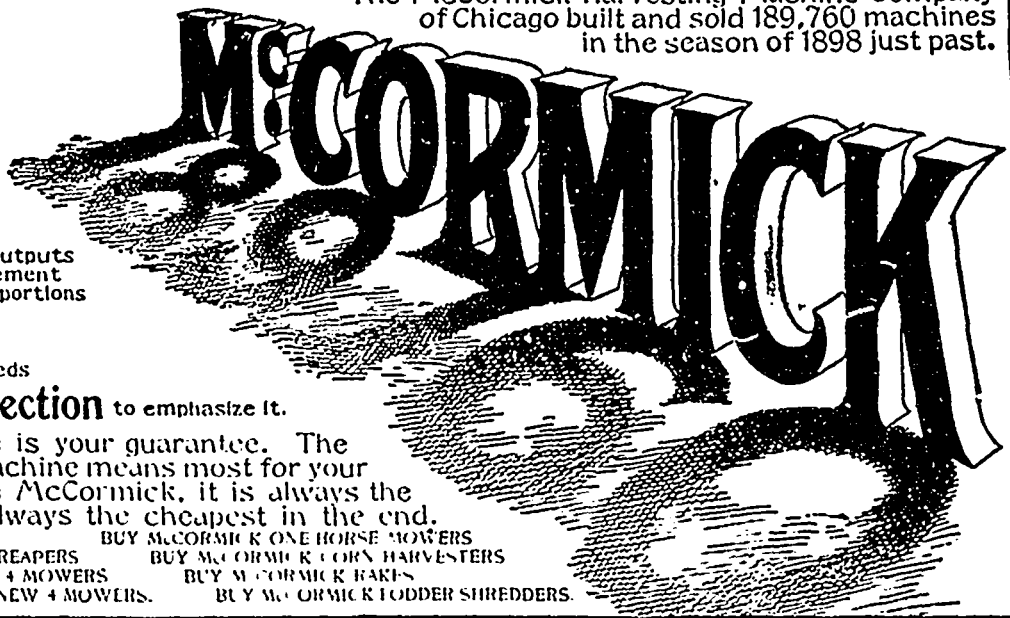
J. W. SMITH, Manager,
Winona, Ont.

Binder Twine

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

Truth is stranger than fiction
 You know it
 And
 You forget it
 Until something happens
 Then
 You realize it
 Thus
 That enormous output
 Of machines
 For which
 McCormick is famous
 All over the world
 That output
 Which dwarfs all other outputs
 By this shrewd advertisement
 Shows its mammoth proportions
 And you are astonished
 Yet you knew it
 Knew it well
 Truth is truth but it needs

The McCormick Harvesting Machine Company
 of Chicago built and sold 189,760 machines
 in the season of 1898 just past.



A Strange Reflection to emphasize it.

Our great sale is your guarantee. The most modern machine means most for your money. Buy the McCormick, it is always the best and it is always the cheapest in the end.

- BUY McCORMICK BINDERS.
- BUY McCORMICK ONE HORSE MOWERS
- BUY McCORMICK DAISY REAPERS
- BUY McCORMICK CORN HARVESTERS
- BUY McCORMICK BIG 4 MOWERS
- BUY McCORMICK RAKES
- BUY McCORMICK NEW 4 MOWERS.
- BUY McCORMICK FODDER SHREDDERS.

less. Those who saw the "Dandy" wind-mills made by the Woodstock Wind Moto Company of Woodstock, Ont., at the Toronto Industrial and other exhibitions last year were satisfied that a more perfect and useful machine would be hard to find. It has stood the test of thoroughly practical experiment and actual use, and should be seen by those contemplating the purchase of any sort of motive power. The Company will be pleased to furnish full particulars and information on application.

Dairy Supplies.—The well-known and reliable firm of R. A. Lister & Co., Limited, are opening works at 579 581 St. Paul street, Montreal, for the convenience of their patrons. The demand for their goods has increased to such an extent they find this step an imperative necessity in order to provide for the convenience of their patrons and to enable them to keep abreast of the constantly increasing requirements of their trade. They make a specialty of separator parts and dairy separators. Their pasteurizer and cooler is in constant demand, and is said to be used almost exclusively in Denmark for buttermaking. Their separators, the Alexandra and Melotte, are selling so rapidly it has been found difficult to keep pace with the demand. These machines, both hand and power, were a great attraction at the Toronto Industrial and other leading fairs last fall, and were constantly surrounded by a crowd of intensely interested spectators, who were delighted with the demonstration of their simplicity and the perfection of their design. The results have been wonderful in stimulating the demand for their use. Mr. La Tache, the Canadian manager of the company, is jubilant over the prospects for this spring's trade. He states that although their business has always been a healthy one, yet the outlook for the future bears evidences of unprecedented success for the company and a season of remarkable prosperity for the butter industry of Canada.

The Jubilee Sawing Machine.—The Lancaster Machine Works are advertising an up-to-date sawing machine in this issue. See their advertisement on page 559.

The Canadian Windmills for Export.—The Ontario Wind Engine and Pump Company have an order on hand for one of their well-known wind engines, the Canadian Air Motor, to be supplied for H. M. government in India. This is to be placed on a steel tower, and is to be utilized for running a dynamo, and it is pleasing to understand that this Canadian company is pushing trade, not only through Canada, but also in all parts of the British Empire. They recently made a shipment to Egypt, and the other day shipped four windmills to Cyprus, and they are in receipt of word from Her Majesty's representative saying that the previous outfits were giving universal satisfaction.

BUTTER WRAPPERS,

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.

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

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

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

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

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

For further information or particulars, address

THE CANADIAN DAIRY SUPPLY CO.,

236 King St., Winnipeg, Man.

We want local agents in every Dairy District.

tf

CANADIAN PACIFIC RY.

Settlers' One-Way Excursions

To Manitoba and Canadian Northwest will leave Toronto every TUESDAY during March and April.

Passengers travelling WITHOUT LIVE STOCK should take train leaving Toronto at 3:15 p.m.

Passengers travelling WITH LIVE STOCK should take train leaving Toronto at 9:00 p.m.

Colonist Sleepers will be attached to each train.

For full particulars and copy of "Settlers' Guide" apply to any Can Pac agent, or to

C. E. McPHERSON

Assistant General Passenger Agent,
1 King St. East, Toronto

DEAL DIRECT

IF YOU CAN USE ANY:

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

E. MORDEN, NIAGARA FALLS, SOUTH,

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

Ask for Eddy's

when you order matches. Then you will be sure of having the best.

A SMART PUBLICATION

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

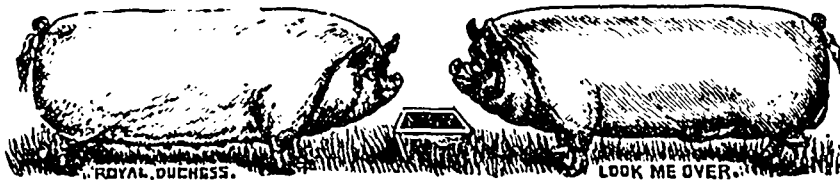
Free Sample Copy and advertising rates on application to

CO-OPERATIVE FARMER, Sussex, N.B.

Wm. Butler & Son

Dereham Centre, Ont.

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



Summer Hill Herd of Yorkshire Hogs—Large Lengthy English Type—Among them being the undefeated prize-winning boar "LOOK ME OVER"—2602—acknowledged to be as good as any it not the best of his kind on the continent of America to-day. Also "ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not akin. Also choice young sows bred to "Look Me Over." We ship to order, prepay express charges, guarantee stock as described.

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

.. HIGHEST TYPE OF BACON HOGS. .

Oak Lodge Herd of Large Yorkshires



The Largest Herd of Pure-Bred Yorkshire in America.

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

J. E. BRET HOUR, Burford, Ont.

NORTH BRUCE HERD.

IMPROVED LARGE YORKSHIRES.

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



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

BOWHILL STOCK FARM.
... Teeswater, Ont.

FOR SALE

1 SHORTHORN BULL, 14 months old, color red, in fine form and good quality. Dam English Lady 8th, by Victor G.; Sire Albert Victor (Imp.)

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

WANTED

Competent man to work among cattle and do general farm work. Apply to **JAMES DOUGLAS,** Caledonia, Ont.

WANTED

Two first-class dairy farm hands to go "West." Good wages and steady situations. Apply by letter to office of **FARMING, 44-46 Richmond St. West,** Toronto. d3-28

ONTARIO VETERINARY COLLEGE, Limited

Temperance St., Toronto, Can.

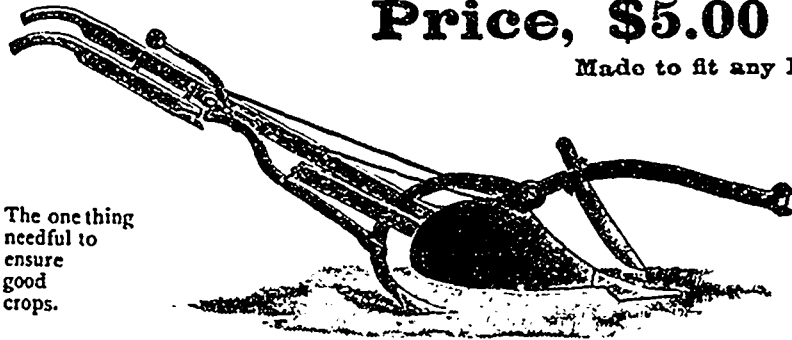
Affiliated with the University of Toronto. Patrons: Governor-General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Classes begin on Wednesday, Oct. 13th, 1897. Fees, \$65 per session. PRINCIPAL, PROF. SMITH, F.R.C.V.S., TORONTO, CANADA

BOYS FOR FARM HELP.

The managers of Dr. Barnardo's Home invite applications from farmers throughout the country for the boys they are sending out periodically from the English homes.

MR. ALFRED B. OWEN, Agent,
Dr. Barnardo's Home, 214 Farley Ave. Toronto, Ont.

The Vessot Sub-Soiler
Price, \$5.00



Made to fit any Plough

The one thing needful to ensure good crops.

NOW IS THE TIME TO BUY

Read in another column what one man has to say about it without being asked

Circulars on application

S. Vessot & Co.,
Joliette, Que.

The Ontario Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

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

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

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

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

STOCK FOR THE WEST.

Another carload of purebred live stock shipped under the auspices of the Live Stock Association will leave for the West early in April. Several more animals are required to complete the carload. Intending shippers may obtain full particulars upon application to the Secretary of the Association, F. W. Hodson, Parliament Buildings, Toronto.

SPECIAL NOTICE TO SECRETARIES AND EXECUTIVE OFFICERS OF FARMERS' INSTITUTES.

Although the institute meetings are over for the season, a number of the institutes have not complied with the requirements of rules 58 and 60, which read as follows: "Within one week after the close of each institute meeting or series of meetings, the secretary shall forward to the superintendent a detailed report of said meeting or meetings, in which shall be stated the name of the place or places where sessions were held, the number of persons present at each session, the name and address of each person who read a paper or gave an address, the title of the address or paper, and a comment upon its value, whether good, fair, or indifferent. (Use form A of the secretary's minute book for making returns required by this clause.)" "The secretary shall, when possible, retain the manuscript of all papers read at institute meetings by local talent, in order that he may, when required, furnish the superintendent with the same. Each institute is required to forward at least two such papers each year, which may be published as the superintendent decides. Secretaries or essayists are not required to rewrite papers before sending them to the superintendent; forward them as read at local meetings."

It is imperative that these rules be complied with, and no institute will

receive the usual Government grant this year whose secretary does not promptly comply with the requirements set forth in each of these clauses.

HOW TO INCREASE THE MEMBERSHIP.

A few institutes have adopted special means of increasing their membership for the year 1899. Following is a copy of a circular sent out by Mr. C. W. Young, secretary of Cornwall and Stormont Institutes:

Cornwall, Feb. 20, 1899.

DEAR SIR,—The meetings of the Stormont Farmers' Institute for 1898-9 are now over, and I find on looking over the books that it appears you have not renewed your membership. I am sure this must have been because you were absent from the meetings or through inadvertence, as the literature received by institute members is worth many times the 25c. fee to any progressive farmer.

This is why I have taken the liberty of calling your attention to the matter, as I regret exceedingly to lose any of our members.

I enclose you an envelope directed and a perforated card in which you can place the "quarter" necessary to continue the benefits of institute membership for the current year.

Should you have renewed and not been credited will you kindly notify me at once and I will make the correction.

Sincerely yours,
C. W. YOUNG,
Secretary.

On the outside of the perforated card to which Mr. Young refers in his circular is printed—"Put in 25c. and seal. Enclosed you will find 25c. to renew my membership for the current

year in the Stormont Farmers' Institute.

"Name....."

"P.O....."

This circular has been the means of adding quite a number of members to the list of these two institutes.

Peel Farmers' Institute has also adopted a similar means of increasing its membership. The circular sent out by the energetic secretary, Mr. R. McCulloch, read as follows:

Snelgrove, March 10th, 1899.

DEAR SIR,—Owing no doubt to the condition of the weather and roads you were not at the meetings of the institute held in the county, and in consequence your membership fee for the present year has not been paid. We are anxious to maintain the reputation of the institute as one of the strongest of the province.

Will you forward me at once 25c., when I will enter your name as a member for 1899.

Agricultural papers at the following rates: *Farmers' Advocate*, 55c.; *FARMING*, 40c. to institute members.

Very truly,

R. McCULLOCH,
P. Speers, President. Sec.-Treas.

We think the plan adopted by these institutes a very good one and should be the means of doing much towards increasing the membership.

INSTITUTE MEETINGS.

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

Algoma, Centre.....	100
Carleton.....	181
Huron, West.....	126
Lanark, South.....	152
Union.....	48

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

Algoma, Centre.....	50
Cornwall.....	28
Frontenac.....	5
Grey, South.....	6
Hastings, East.....	13
Huron, West.....	82
Kent, East.....	2
Lanark, South.....	40
Muskoka, North.....	32
Muskoka, South.....	3
Norfolk, North.....	1
Oxford, North.....	7
Parry Sound, West.....	9
Prescott.....	2
Renfrew, North.....	3
Simcoe, South.....	2
Simcoe, West.....	1
Union.....	5
Waterloo, North.....	3
Waterloo, South.....	26
Wentworth, North.....	3

SECRETARY'S REPORT.

(Continued from March 11.)

From the above outline of the plan for assembling and distributing carloads of stock, it will be seen that a large amount of detail work is necessitated, and it is necessary that the attendant, as well as being capable of caring for stock and accurately following out instructions, must also be one who is thoroughly reliable, as the collections amount in each case to quite a large sum. If the car sent out were an ordinary car-load from one point in Ontario to one destination, there would be no difficulty in obtaining any number of capable men to take charge of the car in order to obtain free transportation. With the conditions as they at present are, however, it has been found much more satisfactory to engage a suitable man, pay him for his time, and furnish him with return transportation to Ontario. This extra cost has been objected to as unnecessary, but it cannot be satisfactorily done in any other way. The secretary-treasurer, who is responsible for the safe-keeping of the funds of the associations, cannot be expected to allow a man who may be, and no doubt is, perfectly reliable to make collections for the associations unless he knows for himself that the man is reliable, or unless some reliable person known to the secretary agrees to go security for said person. Shippers will sometimes state that they have had stock delivered at some point in the West for a less amount than the associations can agree to transport same for. This may be quite true. A breeder comes to Ontario and buys perhaps twelve or thirteen head and orders a car. He has room for four or five more head, and to take out a full car-load will not cost him one cent more than if the car is only two-thirds full. If he can arrange to take other stock besides his own he is quite willing and anxious to do so at a very low rate, as anything he receives in this way is a clear gain to him. The association cars are not shipped until a full car-load is available, and each animal is then charged an equitable proportion according to the space occupied, the charges simply being high enough to cover the cost incurred. Nothing whatever is made out of these shipments by any one; they are entirely for the benefit of parties having small shipments. If shippers or buyers can have stock delivered at any cheaper rates, no one is more glad to have them do so than the officers of the Dominion Live Stock Associations; but if they cannot arrange to have the stock delivered at a less rate, we are quite willing to deliver them at the rates as per schedule above.

OUR SEED PREMIUMS.

This week's list contains a number of entirely new varieties of thoroughly tested field seeds and grains. They are said to be phenomenally superior in quality and yield to any others. A trial of them should be made and a premium offer affords an opportunity of doing so without expense and with very little trouble.

SUNNYSIDE POULTRY YARDS

I have for sale the following varieties of the richest strains of blood that can be produced, winning 495 Prizes at the following shows: Toronto Industrial, Provincial, Quebec, Galt, Drumbo, Paris, Brantford and Burford. Winter Shows:—Ontario, Galt, Brantford and Hamilton.

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

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

T. A. COX, - Brantford, Ont.

LUCKNOW POULTRY YARDS

Our matings for '09 are the best we ever owned in Buff and White Cochins, L. Brahmas, Buff Leghorns, Red Caps, S. L. Wyandottes, Black Minorcas, Langshans, Spanish and Javas. **ROGS, \$1.50 per 13.** Try our Barred Rock (imported str.) 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.

J. C. LYONS, Lucknow, Ont.

RED CAPS—Prize winners at Toronto Industrial and Hamilton Poultry Shows. A few cockerels left yet. Eggs, \$1.25 for 15. **IRLAND LIME, Stoney Creek Ont.** [if

DUFF LEGHORNS—Buff Rocks. Winners Petrolen, Owen Sound, Galt, Brantford—hot competition. Eggs \$1.50 and \$2.00 per 15. Fine cockerels cheap. Write sure. **THOMAS H. MILLS, Box 277, Sarnia, Ont.** [if

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. [if-25

HATCHED

90 to 100 per cent.

of the **FERTILE EGGS** in the

TORONTO INCUBATOR

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

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

SHOEMAKER'S BOOK ON POULTRY and Almanac for 1899. 160 pages, 100 illustrations of Poultry, Incubators, Brooders, Poultry Houses, etc. Tells how to raise chickens successfully, their care, diseases and remedies. Diagrams with full descriptions to build poultry houses. All about **INCUBATORS, BROODERS and Yards** Poultry, with lowest prices. Price only 15c. **C. C. Shoemaker, Freeport, Ill., U. S. A.**

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

HATCH CHICKENS BY STEAM—with the 4 simple, perfect, self-regulating **EXCELSIOR INCUBATOR**. Thousands in successful operation. Lowest priced in size hatcher made. **GEO. H. STABLE, 216 to 188 E. 6th St., Quincy, Ill.** Circulars free. Send 6c. for illus. Catalog.

WE TRUST THE PUBLIC

and send them our Incubator on trial. No man should buy an incubator and pay for it before giving it a trial. You pay not a cent for ours until you have given it a thorough trial. It's made so that nobody can fall with it. A child can run it with 5 minutes attention daily. It beat all others at World's Fair, Nashville and Omaha Expositions. The best catalogue and treatise on Incubation published, sent for 5 cts. Plans for Brooders, Poultry Houses, etc., sent upon receipt of 25 cts. **Von Culin Incubator Co. 80 Adams St. Delaware City, Del.**

STRATFORD BROS.

BRANTFORD, ONT.

Tamworth Boars, Dorset Rams, Sheldan Ponies, Light Brahmas, Houdans, Cornish, Indian Games, Black Langshans, White Langshans, White Plymouth Rocks, Buff Plymouth Rocks, Barred Plymouth Rocks **Prices Right**

Des Moines Incubator THE BEST AND THE CHEAPEST **SURE TO GIVE SATISFACTION.**

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

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.

FARMING

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

Published every Tuesday by

THE BRYANT PRESS,

44-46 RICHMOND STREET WEST, TORONTO, CANADA.

Subscriptions in Canada and the United States, \$1.00 per year, in advance; six months, 50 cents, three months 25 cents. In all countries in the Postal Union, \$1.50 a year in advance.

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.

FARMING will be sent to all subscribers until notice by post card or letter to discontinue is received and all arrears are paid up. Returning a paper is not a notice to discontinue. All arrears must be paid up before a name can be taken from our list. All remittances should be made by P.O. money order, express money order, or registered letter. Sending money in an unregistered letter is unsafe, and will be at the sender's risk.

Advertising rates furnished on application.

All communications should be addressed to FARMING, 44-46 Richmond Street West, Toronto, Canada.

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

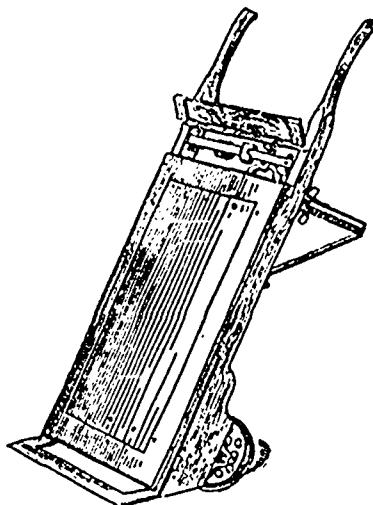
Every Merchant and Farmer

Should own a

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

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

WILL SAVE ITS COST IN NO TIME.



For descriptive circular and full information, address

THE ST. MARYS TRUCK SCALE CO.

St. Marys, Ont.

MARKET REVIEW AND FORECAST.

Office of FARMING,

44 and 46 Richmond street west, Toronto, Mar. 27th, 1899.

General trade has been somewhat quieter during the past week owing to the weather, especially in eastern Ontario and Quebec, where they have experienced some of the severest weather of the season, impeding travel in many directions. A feature in the situation is a marked hardening tendency of the money market, which is having the effect of checking rash speculation.

Wheat.

The wheat situation remains practically unchanged, with perhaps a little stronger feeling abroad. It is now quite evident that unless the coming crop turns out to be greatly injured and a very poor harvest is promised, the price of wheat cannot get much higher than it is at the present time. In the United States, Canada and Russia the bulk of last year's crop is in first hands. This means that there are large quantities of wheat to go forward and more than enough to supply all needs till the new crop is ready. The world's wheat supply in sight is 66,632,000 bushels as compared with 69,737,000 bushels a year ago. It will be seen from this that the quantity in sight is gradually approaching that of last year.

Cable reports on Saturday were stronger, and show advances caused by a stronger feeling in the Chicago and other American markets. An indication of how things are here is that some Canadian operators are selling short, feeling confident that they can get the wheat whenever they want it. At Montreal prices have been fluctuating owing to crop reports. Ontario millers are paying from 67 to 68c. for red winter wheat, but exporters claim that they cannot pay over 65 to 66c. Red and white is quoted here at 67 to 68c. west and north; go se 65 to 66c.; No. 1 hard Manitoba 80c. and No. 1 Northern at 77c. Toronto, but these prices are nominal. On the local farmers' market red and white brings from 69 to 70c., sife 71c. and goose 65c.

Oats and Barley

It is estimated that Canada will have about 5,000,000 bushels of oats to dispose of as soon as navigation opens. Of late years Great Britain has taken more oats from Canada and the United States than from Russia. The London market is down 6d. to 9d., but the market has firmed up considerably. Oats at Montreal have declined 1 cent during the past two weeks, and are quoted at about 31½

cents. Oats are easier here at 29 to 30c. west. On the local market oats are quoted at 34 to 35½c. per bushel.

Barley at Montreal is easier at 52 to 54c. It is quoted here at 44 to 46c. west.

Peas and Corn.

The London market for peas is active. The Montreal market is easier, and quotations are 72 to 73c. in store. The market here is firm at 65 to 66c. west in car lots. On the local market peas are quoted at 59 to 60c. per bushel.

No. 2 American corn mixed is quoted in Montreal at 43 to 44c. net, and here at 41 to 42c. on track.

Bran and Shorts.

Bran is considered too high at Montreal to meet with much enquiry. Ontario bran is quoted at \$16 to \$17, and shorts at \$17.50 to \$18.50 per ton in car lots. City mills here are selling bran at \$14.50 and shorts at \$16.50 in car lots f.o.b. Toronto.

Clover and Timothy Seeds.

The Montreal market is quiet and prices are in buyers' favor. Quotations there are: Ontario timothy, \$1.60 to \$1.75; American, \$1.25 to \$1.50; red clover, \$3.75 to \$4.50; Alsike, \$3.50 to \$4.50 per bushel, as to quality. On the local market here red clover brings \$3 to \$3.50; white \$5 to \$8; Alsike \$3 to \$4.10, and timothy seed from \$1.20 to \$1.35 per bushel.

Eggs and Poultry.

The London, England, egg market is steady at the recent decline, low prices stimulating the demand. Prices have advanced one cent at Montreal during the week due to cold weather, with sales at 12½ to 13c. wholesale. The price of eggs usually fluctuates at this season of the year. There is a good demand here, but the offerings are large and prices are easier at about 12½c. in large lots for strictly new laid. On the local market new laid bring from 12½ to 14c.

Some Montreal merchants are shipping out large quantities of spring poultry to the English market. The prices there for dressed poultry are: turkeys, 9 to 10c.; chickens, 7 to 7½; geese 3 to 5c. and ducks 7 to 8c. per lb. The receipts here are fair and there is a good demand at 11 to 13c. per lb. for turkeys; 6 to 7c. per lb. for geese; 50 to 75c. per pair for ducks, and 40 to 70c. per pair for chickens. Prices are higher on the local market.

Potatoes.

Prices are advancing. A great many Ontario buyers are in Quebec and around Montreal buying potatoes, and prices are much higher west than east. They are quoted at Montreal at about 60c. per bag in car lots. Potatoes are scarce in Toronto, where car lots on track are quoted at 75 to 82c., and out of store at 90c. per bag. On the local farmers' market they bring from 85 to 95c. per bag.

Fruit.

Apples at Montreal bring from \$3 to \$4.50 per bbl., but there is very little doing. On this market they bring from \$2.5c to \$4 per barrel.

Hay and Straw.

Considerable Canadian hay is being exported, and because of its good quality is selling at about 3s. above other qualities at Liverpool. There is more activity reported at country points on this side, particularly in Quebec, where contracts are being made for delivery a month or two hence at \$3.35 to \$4.25 f.o.b., as to quality. The Montreal market for baled hay is quiet with prices steady at \$5.50 to \$6 for choice No. 2; \$4.50 to \$5 for No. 2 ordinary, and \$3.50 to \$4.50 for clover. The market here is dull at \$7 to \$7.50 for baled hay, and \$4 to \$4.50 for baled straw in car lots. On the local farmers' market timothy brings \$9 to \$10; clover \$6 to \$8; sheaf straw \$6.50, and loose straw \$4 to \$4.50 per ton.

Cheese.

The cheese business seems to be one of gains and losses. A year ago dealers were reported to have lost heavily, while this spring those who were so fortunate as to store cheese are being recouped to the extent of 10s. per cwt. more than the goods cost. Such a satisfactory outcome of the year's business will have the effect of causing the season to open up well. Prospects continue bright, and there is not likely to be any old stock on hand when the new goods arrive in England. This will probably induce a larger make of fodder cheese than last year. The British markets continue firm, with a good demand at the recent advance, and prices are still tending upward. The Montreal market is very strong, with prices ranging from 10¾ to 11c., the latter figure being refused by some holders. It is estimated that there are not more than 20,000 boxes to be disposed of, the rest being held for instructions from England. The total decrease in shipments from Montreal amount to 243,127 boxes, making a total decrease from Montreal and New York as compared with a year ago of 546,103 boxes.

Butter.

The butter situation on the whole is good. Prices have been well maintained on this side. The Trade Bulletin's special London cable of March 23rd reads thus: "The market has assumed a much quieter aspect, but sellers are not at all anxious to force business, as stocks are still within very limited compass. Finest Canadian creamery 96s. to 98s." At Montreal the market for choice fresh creamery has ruled firm, and this class of goods is scarce. This quality sells readily at 20½ to 21c. Early makes bring from 19½ to 20c. Western dairy is quoted there at 14½ to 15c. The exports from Montreal from May 1st, 1898, to date show an increase of 98,646 pkgs.,

as compared with a year ago. While the total exports from New York and Montreal for the same time show an increase of only 44,966 pkgs.

The market here for creamery butter continues steady at 20 to 21c. for prints, and 19 to 20c. for tubs. Receipts of dairy are a little more liberal and there is a fair demand, with the market for the best firm. Choice dairy tubs bring from 13 to 15c.; large rolls from 14 to 16c., and pound prints from 16 to 17c. wholesale. On the local farmers' market large rolls are worth from 15 to 17c., and lb. prints from 18 to 20c.

Cattle.

The cattle situation remains active. There is a good active demand at American markets for prime cattle, which are scarce. All other breeds have, however, sold readily during the week. There is a more active demand at Chicago and Western markets for stockers and feeders. Receipts on Toronto market on Friday were light and the quality of the fat cattle only fair. Trade was good and prices higher, especially for butchers' cattle. It is not expected that this advance will hold should there be a heavy run next market day, which is to-morrow.

Export Cattle.—Choice heavy exporters sold at \$4.85 to \$5 per cwt., and light ones at \$4.70 to \$4.85. Choice picked lots of heavy exporters in small lots brought 10 to 15c. more. Choice heavy export bulls of good quality bring \$3.85 to \$4.25, and medium bulls \$3.60 to \$3.75 per cwt.

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

Stockers and Feeders.—The deliveries of Buffalo stockers are light with prices firm at \$3.50 to \$3.80 for general run, and as high as \$4 for choice bred steers. Stock heifers bring about \$3 per cwt. Heavy feeders weighing from 1000 to 1150 lbs. each are scarce and are worth from \$4.15 to \$4.30 per cwt. Feeding bulls suitable for the stables are worth from \$3 to \$3.25 per cwt.

Cakes.—These are worth from \$2 to \$10 each, the bulk going at from \$5 to \$8 each.

Milk Cows and Springers.—Really good ones are scarce and are worth \$50 each. The general run fetch from \$25 to \$40 each.

Sheep and Lambs.

Early in the week the Buffalo, Chicago and Western markets were very active, but towards the end of the week prices dropped a little, owing to the large runs induced by the advanced market early in the week, but the general situation is still good. About 200 sheep and lambs were offered on this market on Friday. Ewes sold at \$3 to \$3.50 and bucks at \$2.50 to \$2.55 per cwt. Yearling lambs were scarce with prices firm at \$4.85 to \$5 for general run and \$5.10 to \$5.15 for picked lots of ewes and wethers. A few spring lambs are beginning to come in, and sell for \$4 to \$6 each.

Hogs.

Prices for hogs remain about the same, though it is expected that light and thick fat hogs will be 12½c. lower this week, as there are too many of the former coming forward. Choice selected bacon hogs, weighing from 160 to 200 lbs. unfed and unwatered, fetch \$4.50, light \$4.12½, and thick fats \$3.75 to \$3.87½ per cwt. Good light bacon hogs at Montreal fetch \$4.50 to \$4.60 and heavier qualities \$4.25 to \$4.30 per cwt. The *Trade Bulletin*, London, cable of March 23rd, re Canadian bacon, says: "The market is dull owing to the falling off in the demand, but, as stocks are light, holders are not pushing sales."

If you give cracked corn or similar feed to the chicks they must have something to grind it with. If confined on grass sod they can get but little grit, and must have some supplied in the shape of sharp sand.

Why ? Because

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

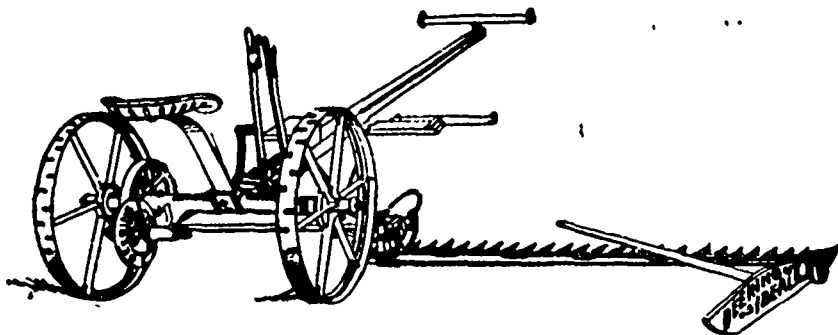


Parties wishing a first-class Harrow will do well to write us direct, or apply to the local agent.

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

TOLTON BROS., GUELPH, Ont.

The Machines that Made America Famous



DEERING IDEAL MOWER.

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

DEERING HARVESTER CO.

Main Office and Factory:

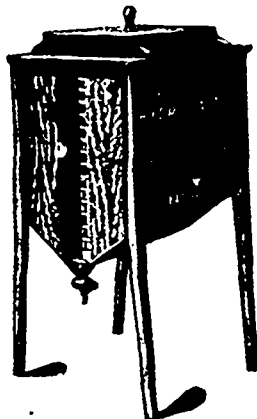
CHICAGO, U.S.A.

d.3.28

Permanent Branch House:

LONDON, ONT

Make Your Own Butter



The Very Latest for Farmers' Wives

NO MACHINERY

NO WORK

NO ICE

Separates the Cream in from 2 to 3 hours

A Separator for

10 COWS FOR \$10.00

Write for circulars.
Agents wanted

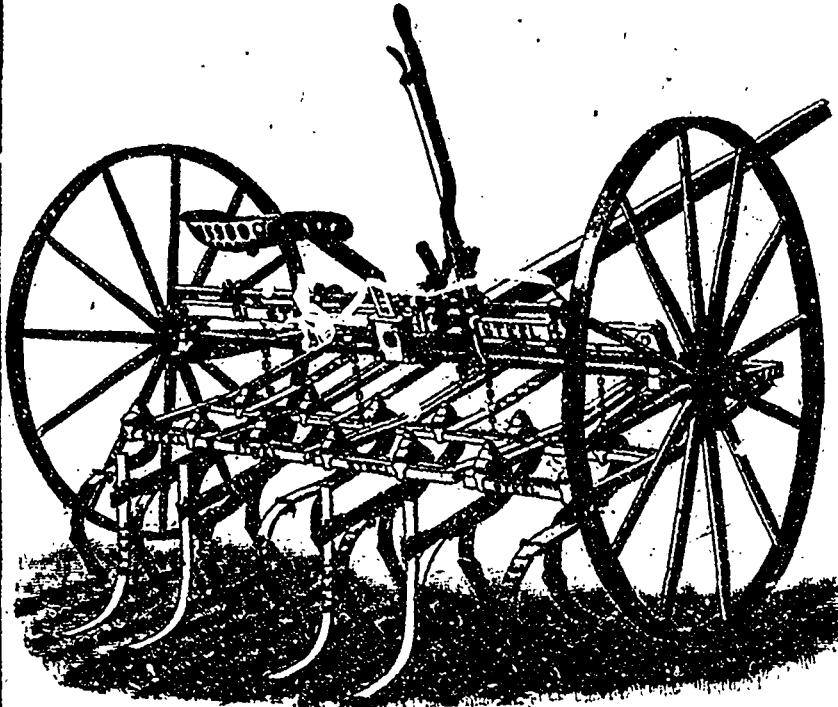
J. F. GILL & CO.

NIAGARA FALLS, ONT.

Read our List of Seed Premiums on
Page 564.

The MASSEY-HARRIS CULTIVATOR

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

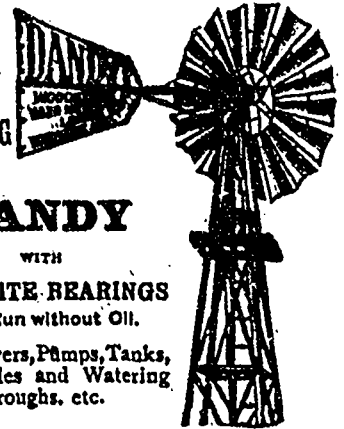


AND ARE SUPPORTED BY A PATENTED HELPER

MASSEY-HARRIS CO., LIMITED
TORONTO

Woodstock Steel Windmills

FOR
POWER
AND
PUMPING



Get a
DANDY

WITH
GRAPHITE BEARINGS
They Run without Oil.

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

WOODSTOCK WINDMOTOR CO., Limited
Woodstock, Ont.

Lump Jaw

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

MITCHELL'S ANTI-LUMP JAW

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

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

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

Price \$2.00,

Postpaid to any address.

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

W. J. Mitchell & Co.,

CHEMISTS,

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

An Acre of Average Crop

CLOVER

requires 35% more **Phosphate** than wheat or other grains.
It also requires 75% more **Magnesia**.

TURNIPS

require over 50% more **Phosphate** than the grains,

WHEAT

notwithstanding this, shows 76% **Phosphate** in its ash.

ALBERTS'

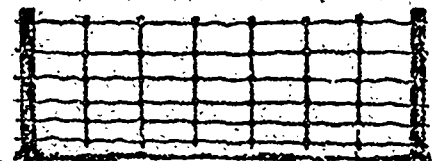
Thomas Phosphate Powder (Rd.)

is the safest Manure to meet these demands.

WALLACE & FRASER

58 Canada Life Building, TORONTO.

THE RANKIN FENCE



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

AGENTS WANTED.

THE RANKIN FENCE CO.
275 ST. MARTIN ST., MONTREAL.



FREE We give
this fine
WATCH
with chain and charm, for sell-
ing (we do) Whitelight Wicks
at ten cents each. *No Money
Required.* Write, and we will
send the Wicks, postpaid, and
our big Premium List. When
you have sold the Wicks, re-
turn the money, and we will at
once send your watch free of
all charge. Hundreds have
earned fine watches working
for us, why not you! In
replying, mention this paper.

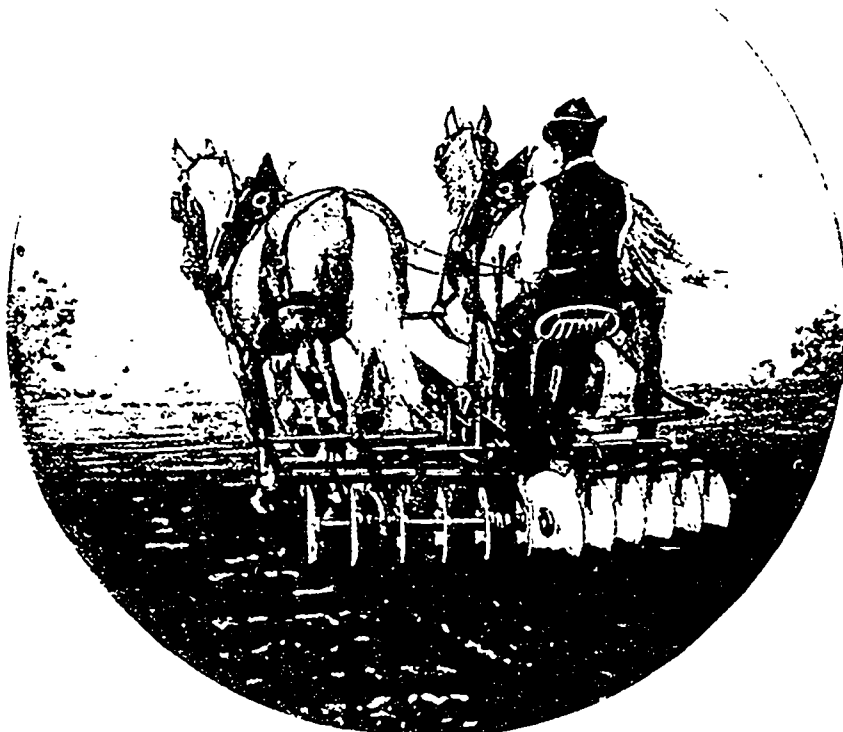
WHITELIGHT WICK CO.,
TORONTO, CAN.

THIS PICTURE TALKS

It tells the story of what the Windsor Disc has done for others, and what it will do for YOU

IF

you want your land Pulverized Levelled up and prepared to receive the seeds of a Banner Crop.



Ball Bearings, decreased draft.

Double lever control.

2, 3 and 4-horse hitch.

Its principle is correct.

Patented Adjustable Scrapers

Awarded the highest honours over all competitors at Chicago, at the World's Fair.

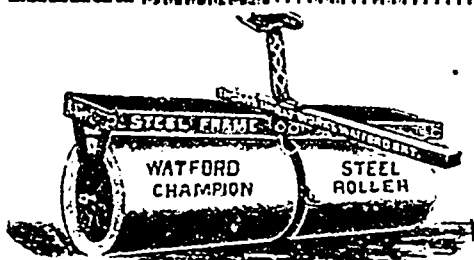
THE FROST & WOOD WINDSOR DISC

Made in Seven Sizes with 16, 18 and 20-inch discs.

Manufactured by the FROST & WOOD CO., Limited.
 Head Office and Works, SMITH'S FALLS, Ont.
 Branch Offices:
 77 Jarvis St., TORONTO; Market Square, WINNIPEG, Man.
 LONDON, MONTREAL, QUEBEC, TRURO, N.S., ST. JOHN, N.B.

WILL CUT Six, Seven and Eight Feet Wide

Farmers



CHAMPION STEEL ROLLER

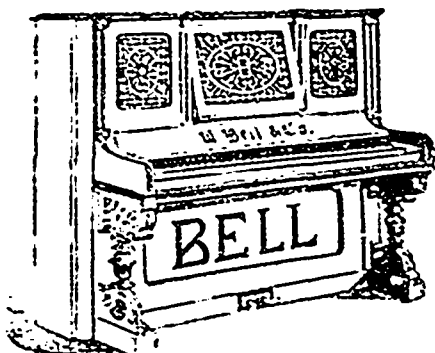
Weight about 1,200 lbs. Steel frame, removable bottom. Low hitch to prevent weight on horses necks.

SPECIAL OFFER Where Watford Implements are not sufficiently known we will name an interesting price, if being understood that special cut is to have no bearing on regular selling price - special price for a special purpose. Yours for up-to-date implements on the farm.

THOM'S IMPLEMENT WORKS, Watford, Ont.

The Unparalleled Reputation of

The BELL PIANOS and ORGANS . . .



Is accepted without dispute by all other makers

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

Only the best materials used All others are rejected
 On Reasonable Terms from all Agents
 Manufacturers - QUELPH, Ont.

THE BELL ORGAN & PIANO CO., LIMITED

BIG MONEY FOR AGENTS

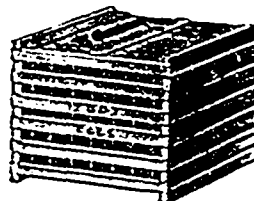
THE STAR RIVETER



For MENDING HARNESS, BELTING, etc. Indispensable to Farmers, Livermen and Threshermen. STAR RIVETER made with 50 circular rivets. \$1.00 best selling article ever introduced. Agents write for special prices and territory.

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

Humpty-Dumpty Egg Grates



Save their cost to the Farmer many times every year.

BREAKAGE and DISPUTED COUNTS AVOIDED
 CHEAP-CONVENIENT
 LIGHT-STRONG

When not in use folds compactly together. Handiest thing with fillers removed for carrying Fruit or Vegetables.

THE DOWSWELL MAN'G CO LIMITED

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

...Hamilton