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# Farming

A Paper for  
Farmers and Stockmen

## Ontario Farms for Sale

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

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

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

MILNER HART, 103 Bay St., Toronto.

## CONTAGIOUS ABORTION AND HOG CHOLERA

Can positively be cured or prevented by the use of

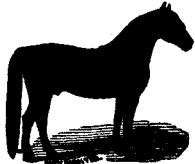
**WEST'S FLUID,  
DISINFECTANT**  
which is also a cheap and effective

Circulars (specially prepared by a veterinary surgeon) on these diseases, on application.

**THE WEST CHEMICAL CO.,  
TORONTO, ONT.**

DEPT. F Agents wanted in all counties.

## Horse Owners! Use GOMBAULT'S



## Caustic Balsam

A Safe Speedy and Positive Cure  
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. **SUPERSEDES ALL CAUTERY OR FIRING.** Impossible to produce scar or blemish.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. **THE LAWRENCE-WILLIAMS CO., TORONTO**

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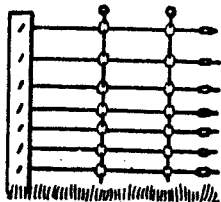


## LUMP JAW NOW CURABLE.

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

## Fence Machine Free

With 100 Rods. Gold Stem-Wind Watch Free.



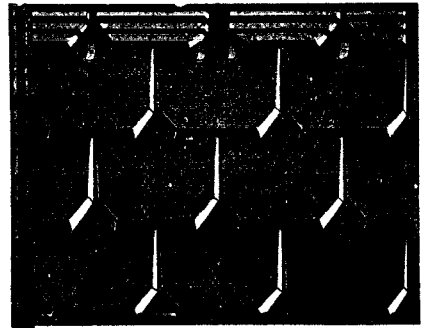
To introduce Diamond Grip Fence in new localities. Don't have to wind wires around each other (like old woven fences), as cross wires are gripped and protected from weather; can never slip or break; 5 times as strong and lasts 10 times as long, as any woven wire fence made; can use coiled spring, plain,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

CANADA FENCE CO., London, Ont.

## The Lasting Protection

GIVEN BY **Eastlake Shingles**

makes them more economically trustworthy than others.



They can be fitted and laid with wonderful ease and rapidity because of their Patent Side Lock (found in no other shingle) and are strictly Fire, Lightning and Rust Proof.

Galvanized and Painted. Adapted to all weathers. Strictly reliable. Write us for details.

METALLIC ROOFING CO., Limited,

1102 KING STREET WEST, TORONTO.



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

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

**BARRED PLYMOUTH ROCKS** are the best all-round fowl. Eggs from large, vigorous stock of good layers, \$1.00 per dozen.  
H. D. SINCLAIR, 161 Lansdowne Ave.,  
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**Oshawa Poultry Yards.**—Eggs \$1.00 per 15, from High-Class, Pure-Bred, Rose Comb Black Minorcas, Silver Laced Wyandottes and Snow White Plymouth Rocks. W. H. KIRBY, Oshawa, Ont. d-3-9

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

**MAPLE CITY POULTRY YARDS**—W. A. Wilson, Proprietor. Box 581, Chatham, Ont. Eggs for hatching from birds imported from the best English and American breeders. Black Minorcas, Single Comb White Leghorns. Pekin Ducks, \$2 per 13. A limited number of Rose Comb Black Orpingtons Eggs, \$3.00 per 13.

**STRATFORD BROS.**  
BRANTFORD, ONT.

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

**HATCH CHICKENS**  
BY STEAM—with the simple, perfect, self-regulating  
**EXCELSIOR INCUBATOR**  
Thousands in successful operation.  
Lowest priced first-class incubator made.  
GEO. H. STABLE,  
Circulars free. Send 5c. for illus. Catalog. 214 to 125 B. 6th St., Quincy, Ill.

**LUCKNOW POULTRY YARDS**

Our matings for '99 are the best we ever owned in Buff and White Cochins, L. Brahmas, Buff Leghorns, Red Caps, S. L. Wyandottes, Black Minorcas, Langshans, Spanish and Javas. EGGS, \$1.50 per 13. Try our Barred Rock (imported strain), White and Brown Leghorns. Eggs, \$1 per 13. Pekin and Rouen Ducks. Eggs, \$1 per 11. We guarantee a good hatch, and safe arrival of eggs.  
d-4-25 Won 300 prizes the past season  
**J. C. LYONS, Lucknow, Ont.**

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

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

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

You can do as well. Write us for particulars. Address,  
A WILLIITS, 514 Dundas St., Toronto.

**HERMANVILLE DUROC JERSEYS**

**FOR SALE** Service Boar, "Emperor of Hermanville," farrowed March 9th, 1897. Sire, "Prince Edward" 48, bred by Peter Lamarsb, Wheatly, Ont.; Dam, "Blooming Princess" 60, bred by Tape Bros., Ridg-town, Ont.; 2nd dam, "Pansy Blossom" 29, by Abbott II. Weighs nearly 400 pounds, is in the pink of condition, vigorous and a splendid stock-getter. Service, 40 sows past season at 75c., besides our own, and could easily serve twice as many. Ready to ship any time in May. Write for price. Address,

**HERMANVILLE FARM,**  
Hermanville, P.E.I., Can.

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

**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 \$6.00 each.  
Registered Plymouth Rock eggs, 5 settings for \$2.00; Single setting, 75c.

**BACON PIGS**

**LARGE ENGLISH BERKSHIRES**

They suit the Farmer and please the Packer.

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

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

**NORTH BRUCE HERD.**

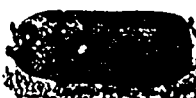
IMPROVED LARGE YORKSHIRES.

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



Write for prices.  
**WM. HOWE,** North Bruce, Ont.  
Port E'gin Station and Express Office

**Golden Link Herd of Berkshires**



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

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

**Wm. Butler & Son**

Dereham Centre, Ont.

**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**

One or two Bay or Dark Brown Carriage Geldings, without white, five or six years, sound, handsome, good action, not less than 16.3. Must have black legs and be free, fast horses. State price, breeding, etc.

d-5-2. To Box 532,  
TORONTO POST-OFFICE

**W. D. FLATT**

HAMILTON P.O. and TELEGRAPH OFFICE



**OFFERS FOR SALE**

Twenty-two Choice Shorthorn Bulls from three to fifteen months old. Persons requiring Show Bulls can be supplied from this bunch.  
Twenty Cows and Heifers, served by imported bull Golden Fame-28056. Prices consistent with quality. Inspection invited.

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 if not the best of his kind on the continent of America to-day. Also "ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not 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 Yorkshires 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 Eng. and the winners at prominent Canadian and United States shows. Pigs of all ages for sale.

**J. E. BRETHOUR, Barford, Ont.**

## SCHOOLS.

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.

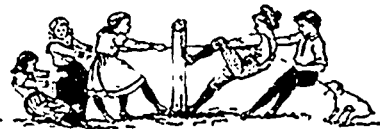
It Pays to Possess Business Brightness—

**Central Business College**  
STRATFORD, ONT.

Properly prepares young men and women for business life. 44 of our recent students have accepted good situations. Write to-day for a beautiful catalogue.

**W. J. ELLIOTT, Principal.**

### Testing the Farmers' Company's Make of Pure Manila Twine



**The Farmers' Binder Twine Co.,  
LIMITED**

OF BRANTFORD, sold you last year their entire mill's output at about half what others were charging. See their agents before buying for the harvest of 1920. d-6-20

**CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED**  
PRESTON ONT.

FINE BANK OFFICE, COURT HOUSE & DRUG STORE FITTINGS. OFFICE, SCHOOL, CHURCH & LODGE FURNITURE. SEND FOR CATALOGUE.

## 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 8:00 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.

## 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.

# SALT

### WE ARE GOING TO HAVE A LATE SPRING

This means a press of work and backward crops. Nothing brings on any crop quicker, causing plump, full, early-ripening grain, with the straw strong and bright, than a liberal dressing of salt. Sow 300 to 400 lbs. per acre as a top dressing. Try it and be convinced. Send for prices.

**R. & J. RANSFORD**  
CLINTON, 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.

## Farming.

A PAPER FOR FARMERS AND STOCKMEN.

**Farming** is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

Postage is prepaid by the publishers for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

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Receipts are only sent upon request. The date opposite the name on the address label indicates the time up to which the subscription is paid, and the change of date is sufficient acknowledgment of payment. When this change is not made promptly notify us.

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**How to Remit.**—Remittances should be sent by cheque, draft, express order, postal note, or money order, payable to order of **FARMING**. Cash should be sent in registered letter.

Advertising Rates on application.

Letters should be addressed:

**FARMING,**  
CONFEDERATION LIFE BUILDING,  
TORONTO

### Publishers' Desk.

**The Most Modern Machines.**—The most modern of all machines in the harvest field is the McCormick. The McCormick anticipates every improvement. The McCormick invariably leads the way. It is the oldest firm in the business, and yet the most up-to-date in its methods. There is a special satisfaction in owning a McCormick. It makes a man a happy buyer. He knows he has a sure thing when he is in possession of the "Best in the World," whether it be a McCormick Binder, Mower, Corn Harvester, Rake, or Fodder Shredder. Everybody knows that the "Best in the World" is the motto of the McCormick Harvesting Machine Company.

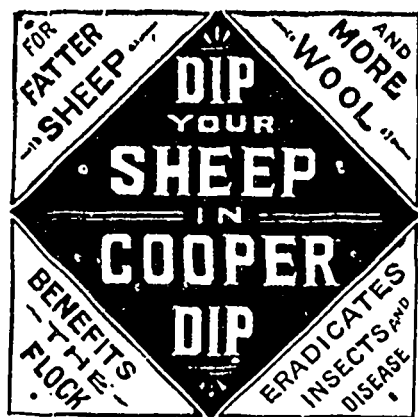
**Cooper Sheep Dip.**—In sheep dipping it is very desirable to select a preparation that effects a cure without injury to the animal or the fleece. The makers of the Cooper Sheep Dip claim that their dip has a distinctly beneficial effect upon both and the popularity of their dip among sheepmen seems to confirm the statement.

**Barred Rocks.**—There are a number of new poultry advertisements in this issue. Amongst these is one in which Mr. D. H. Sinclair offers eggs from pure-bred Barred Rocks at prices which should clear out his stock very readily.

**Abortion in Cows.**—We believe there is no better remedy for the cure or prevention of this disease than West's Fluid. It is a powerful and efficient disinfectant and has the merit of being cheap as well as effective. Send for particulars to the West Chemical Co., Dept. F., Toronto.

**Preservative Paint.**—The fact that the Finch Wood Preservative and Paint has been used for a number of years by the Ontario Government, the cities of Toronto and Montreal, and some of the leading Canadian railways, is an indication that it is what it claims to be—a good wood preservative as well as a good paint for all classes of buildings. It will be found useful to every farmer. Send for particulars to the Finch Wood Preservative and Paint Co., Toronto, Ont.

**Lands for Everyone.**—The advertisement of Osler, Hammond & Nanton in this issue will interest every farmer and farmer's son in Canada. The Northwest is a great country, wanting only population to make it the finest agricultural country in the world, and this deficiency is being supplied as rapidly as anyone can desire. Thousands of people are going in this year and those who desire to obtain good and cheap locations should act promptly or they will be too late. Write Osler, Hammond & Nanton, Winnipeg, Manitoba, for particulars.



Used and endorsed by Hon. John Drayden, Minister of Agriculture, Toronto, and leading breeders everywhere.

**SUPERIOR TO ALL LIQUID DIPS**

25-Gal. Packet, 50c; 100-Gal., \$2.00

If druggists cannot supply, send \$1.75 for 100-gallon packet to Evans & Sons, Montreal or Toronto.

Ask premiums on application to COOPER DIP, Galveston, Texas.

USE

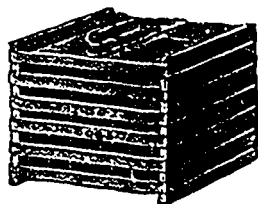
## Ulrich's Ensilage Corn

MAMMOTH WHITE  
GIANT PROLIFIC  
YELLOW DENT  
IMPROVED LEAMING

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

Ask your dealer for samples and testimonials

## Humpty-Dumpty Egg Crates



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.

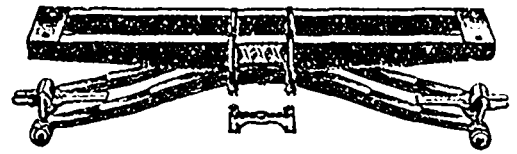
**THE DOWSWELL  
MAN'G CO. LIMITED**

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

...Hamilton

Carry your Stock and Farm Produce on  
Waggons fitted with the celebrated

**"XXX" Bolstor Springs**  
They are the only perfect spring made  
In comparison with these all others are use  
less. Address I. H. MORROW,  
General Sales Agent, Brighton, Ont.  
Special inducements to introduce where we  
have no agent.



## The Unparalleled Reputation of

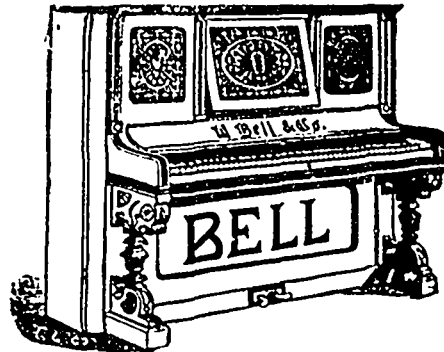
The **BELL PIANOS**  
and **ORGANS** . . .

Is accepted without dispute  
by all other makers

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

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

Manufactories: QUELPH, Ont.



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

## Ewing's Selected Seeds

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

TO ALL WHO WILL SEND US THEIR ADDRESS

PLEASE SEND FOR ONE

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

**WILLIAM EWING & CO.,**

142 McGill Street, MONTREAL.

**GOOD SEEDS ARE THE CHEAPEST**

BEFORE THE PUBLIC NEARLY 50 YEARS.

Garden Collection No. 3—8 Packets for 25c.

Beet—Edmand's Blood Turnip. Carrot—Scarlet Intermediate. Cucumber—White Spine. Lettuce—Simmers' Nonpareil. Musk Melon—Green Nutmeg. Water Melon—The Boss. Onion—Large Yellow Strasburg. Radish—Scarlet, Olive shaped.

25c.—Simmers' Flower  
Seed Collection.

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

Collection D.

18 Packets of Choice Vegetable and Flower Seeds, only 50c. postpaid.

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

ADDRESS ALL ORDERS:

FREE with every  
order, a packet of Japa-  
nese Morning Glory.  
Mention FARMING.

**J. A. Simmers,** TORONTO  
ONT.

# FARMING

Vol. XVI.

APRIL 25th, 1899.

No 34

## Do Not Neglect to Cultivate the Soil

There may be a tendency on the part of the farmer, because of the lateness of the opening of spring this year, not to give the land as much cultivation as usual, with the view of getting the seeding done as soon as possible. This would be a very unwise plan to follow. In fact, better and more thorough preparation of the soil is needed if the season is inclined to be late and the period for growth shortened. But it is surprising what scant cultivation and preparation many farmers give the land before the seed is put in. We have frequently seen in several sections where it has been our privilege to be, farmers, who, with the desire to get through seeding before their neighbors, would put the seed into the ground when only half prepared for it, and then boast of his ability to rush things along. But a day of reckoning always comes and when threshing day arrives the farmer who has taken the necessary time to prepare his land properly has his chance for boasting, other things being equal, in the increased yield, the extra time and work he put upon his land have given him. In the older sections of this country, at least, thorough cultivation and preparation of the soil is necessary to ensure a good crop.

In this country, when at all possible, all plowing should be done in the fall. The action of the frost and snow during the winter put the soil in such a condition that with a cultivator or disc harrow and followed, if necessary, by a light harrow it can easily be made into a good seed bed for the future crop. In these days of keen competition the farmer must leave nothing undone that will ensure a good crop. The fertility of the soil must be kept up by an intelligent and systematic plan of manuring and in addition the soil must be put in proper shape for receiving the seed. When this is done the farmer may rely upon nature doing the rest, and if by chance there should be an unfavorable season he will be better off by having cultivated his land properly before sowing than if he had not done so.

## The Patron's Duty in Cheese and Butter-Making

One would imagine from the amount of information given at the dairyman's convention, farmers' institutes, and by means of government bulletins, and through numerous articles in the agricultural press, on the care of milk for cheese or butter making that it would no longer be necessary to educate our dairymen in this particular line. But the general consensus of opinion of those interested and who understand the situation is that such education and information is as much needed to-day as it ever was. The increased demand for a better quality of product makes the need of a first-class raw material to make it from more urgent. We pointed out some months ago in these columns that Canadian cheese has reached a somewhat critical period in its career, and the progress and success of the industry in future years will depend, to a large extent, upon the attitude of the patron or the person who supplies the milk towards it. In no small degree is the attitude or

relation of the average patron to the concern what it should be in this particular. Too many patrons stand aloof and never make any special effort to co-operate with the maker in making the quality of the product turned out of the very best kind. As has been frequently stated, Canadian dairying is essentially co-operative in its character, and the success of any factory, and of the industry as a whole, depends upon each factor in the concern, the patron, the maker and the company or owner of the buildings and plant, doing his very best in performing the share of the work devolving upon him.

The important work which the patron has to perform is to take the best of care of the milk while under his control and supply only a good wholesome product to the factory. Elsewhere will be found a specially-prepared article on this subject by Mr. T. B. Millar. Mr. Millar was for several years travelling instructor and inspector for the Western Cheese and Butter Association, and is fully qualified to speak with authority on the subject of the care of milk for either cheese or butter making. Every dairyman should read this article and put into practice what it teaches if he has not already done so. If every person who supplies milk to either a butter or cheese factory this season would make a special effort to supply only the very best quality we would not have so many complaints from abroad regarding the quality of our cheese, as was the case in regard to last year's product. There is a forward movement among the factories in regard to improved curing facilities, and we would like to see a more concerted effort on the part of the patrons to have every drop of milk delivered of the very best quality. These two things accomplished and we need have no fear regarding the future of Canadian dairying.

## The Farmer's Garden

An important though very much neglected part of every farm is the garden. While the larger branches of the farmer's work, such as the grain crop, the care of the stock, the dairy, etc., are given every care and attention the garden, a very necessary help to wholesome living in the farmer's household is passed over with very slim care. Why this is so often the case is very hard to say. Perhaps it is because the farmer, so used to farming in a large way, considers the small half-acre devoted to vegetables, small fruits, etc., too small a matter to bother about. But did it ever occur to him what the real value of this half-acre was when compared with other half acres under cultivation on the farm? A half-acre of wheat is doing well if it yields 15 bushels which at current prices would be worth about \$10, while a half-acre devoted exclusively to vegetable, small fruits, etc., would yield in value fully ten times as much.

But it is not in a commercial way that the garden is of value to the farmer but in the quantity of fresh vegetables, strawberries, fruits, etc., that he will have for his own table. From the standpoint of health alone it will pay the farmer to give special attention to his garden, for a vegetable diet is one of the most wholesome that can be given. Food specialists uphold this view, and many of them claim that the larger part of our food should be made up of vegetables and green stuffs. Another evidence of this is the fact that there are numbers of people living and thriving on a purely vegetable diet alone. If this be true the farmer owes a duty to himself and his family to provide

them with an abundant supply of a variety of vegetables, especially when they can be grown as easily and as cheaply as on the average farm.

A person would hardly believe it, but it is only too true that many farmers have been known to buy vegetables for their own use. Such an expenditure is simply a waste of money that should and could be avoided if every farmer would take a day or two in the early spring and a few hours occasionally afterwards to put and to keep his garden in order. It does not take much trouble, and good results are sure to follow if a good piece of ground is selected and put in fine shape at the start. The reason why so many farmers' gardens are a failure is because they have never given them the care and attention they required. To make it a success it should be made part of the regular farm work, and if properly arranged at the beginning can sometimes be well cared for by the women of the household. If every farmer would give his garden some special attention the coming season and grow a variety of choice vegetables for his own table we are certain that he would not feel like letting it run to weeds next year. The necessary thing to do is to put the land in good shape by cultivation and manuring, and to secure from some of the many reliable seedsmen advertising in this journal the kind and variety of seeds required to sow it. This done and a little care and attention while the plants are growing will insure a good supply of table vegetables, berries, currants and such like.

## Domestic Science

We have received a very interesting report on this subject, by Mrs. Hoodless, of Hamilton, published by the Educational Department of Ontario. The report, while emphasizing the necessity of teaching domestic science in our public schools and colleges, gives special attention to what is being done in other countries and the account of a recent visit of the lady referred to to the schools of Philadelphia and Washington.

After giving some information regarding the work in European countries Mrs. Hoodless says:

"The progress made, together with the apparent educational value placed upon these practical subjects (domestic science and sewing) in other countries has led to a consideration of their introduction into the public schools of Ontario. It is generally conceded, after years of experience, without which an educational system cannot be perfected, that a strictly mental or theoretical training has not produced satisfactory results. That the brain must be the directing power is, of course, acknowledged; but mental power without the ability to execute, without the co-operation of eye and hand, is not the kind of education which will 'fit scholars for the ordinary duties of life.' The more advanced theories in regard to education involve the training of the senses as agents of the mind in acquiring a true knowledge of things."

In summing up the general evidence obtained from her visit to the United States and from other sources, the writer gives the following as the chief benefits to be derived from the introduction of those practical subjects into the public school curriculum:

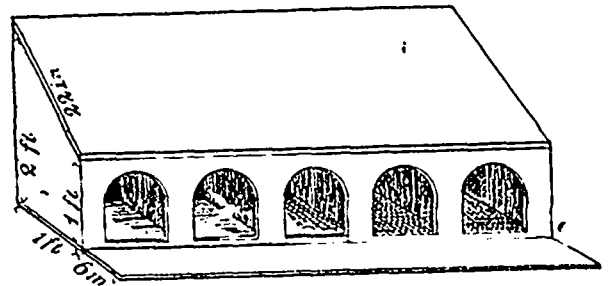
- (1) It tends to inspire respect for skilled labor and domestic duties.
- (2) It develops self-respect and self-reliance, especially in pupils who dislike books.
- (3) It develops general intelligence and increases interest in school work.
- (4) It cultivates habits of neatness, attention, accuracy and industry.
- (5) It improves the health and strengthens the will-power.

In closing her report she says:

"There is no part of a girl's education which is so likely to produce a permanent effect or to exercise a better influence than an intelligent study of domestic science, which gives a practical knowledge of the essential principles underlying true home-making."

We have given this subject more prominence just here than we otherwise would because we wish to draw particular attention to the fact that, if the teaching of domestic science, etc., in our public schools will be of value to people living in the towns and cities, it will be equally valuable to those living in the country. But why not extend the study of this subject beyond the scope of the public school? We have expressed ourselves more than once as being strongly in favor of a Department of Domestic Science in connection with the Ontario Agricultural College, and we would again like to emphasize the need of such a branch of study at that well-managed institution. The teaching of domestic science and kindred subjects is being made a prominent feature at many of the leading American agricultural colleges, and why not at our leading Agricultural College?

We shall, however, have more to say in regard to this matter later on. Beginning with this issue we will have a department of our paper devoted specially to the farm home and woman's sphere and influence therein. In this department we purpose giving special attention to the discussion of matters pertaining to domestic science and kindred subjects with a view to giving practical information along these lines that will be of value to the women and girls of the farmer's household in enabling them to perform the duties devolving upon them in a way that will bring greater happiness and prosperity to all concerned. The work of brain or muscle depends in no small degree upon



Nest-box for Poultry House

The nest-box is supposed to be in position, resting on the nest bottom.

the kind of food and manner in which it is prepared; and while the farmer's wife in this country is, perhaps, above the average of any other land in her knowledge of foods and how to prepare them, yet we are of the opinion that there is room for improvement along this line in many ways. The whole subject at any rate opens up a very wide field for thought and investigation, and we trust it will receive the attention its importance demands.

## A New Poultry Manager At the Ontario Agricultural College

A change has taken place in connection with the Poultry Department of the Ontario Agricultural College, Guelph. Mr. L. G. Jarvis, who has occupied the position of manager during the past five years, has resigned, and Mr. W. R. Graham, B.S.A., Belleville, Ont., has been appointed to succeed him. Mr. Graham, whose appointment is temporary for one year, is a graduate of the college of five years' standing and has had a wide and successful experience as a poultry breeder and producer. He has been a frequent contributor to these columns, and those who have read his articles must come to the conclusion that he has a practical and intimate knowledge of matters pertaining to poultry farming.

What is wanted in connection with the poultry department of an agricultural institution like the Ontario Agricultural College is good, practical, definite work along the line of showing the farmers how best to conduct the poultry branch of their business so as to make the most profit out of it. It may be necessary, perhaps, to do a little work in the way of breeding birds that are true to type in the way of color and marking, yet if this merely fancy part is

made prominent at the expense of the purely practical, the work accomplished is of little value to the farming community. The farmer who is in the business for the money there is in it is not very much concerned whether his fowl have the fancy colorings or markings so long as they give a profitable return in the way of eggs and good broilers. From what we know of Mr. Graham and his work we believe we are safe in stating that the really practical side of the work will not be neglected under his management.

## Remedies for Smut in Oats

In a communication received from Dr. Saunders dealing with this object, he points out that the manner of growth, etc., of this form of smut has been fully explained in Bulletin No. 4 of the Experimental Farm Series, prepared by Dr. James Fletcher, copies of which may be had on application.

In discussing the various remedies, Dr. Saunders points out that copper sulphate, so effective for wheat smut, has not given very satisfactory results when used for smut in oats. Soaking the oats in water heated to 132 to 133 degrees for five minutes has been found to give good results. Potassium sulphide has proved an effectual remedy. This is used in the proportion of one and a-half pounds of potassium sulphide dissolved in twenty-five gallons of water, and the oats steeped in this solution for twenty-four hours. The Bordeaux Mixture, made with four pounds of copper sulphate and four pounds of lime in forty gallons of water, and soaking the oats in this fluid for four hours, gave fairly satisfactory results in 1897, but later tests show that, though it is very helpful, it is not a complete remedy.

Formalin has been recently tried for "loose" smut in oats and has given the most satisfactory results. This liquid is a 40 per cent. solution of a chemical known as formaldehyde. In the experiments conducted at the Experimental Farms the Formalin was mixed with water in two different proportions — one of three ounces to ten Imperial gallons, and the other four and a-half ounces to ten gallons of water. The oats were soaked in this solution for two hours, and the results obtained show that Formalin may be regarded as the most satisfactory remedy for this disease. In some further tests made by soaking the grain for ten to fifteen minutes equally good results were obtained. When steeping the grain it is a good plan to enclose it in bags made of cheese-cloth or some open fabric which will allow of the free passage of the water through it. Formalin sells wholesale at fifty cents per pound, and retail at about seventy-five cents per pound. This latter price would be a shade less than five cents an ounce, which would make the cost of the weaker solution fifteen cents per ten Imperial gallons, and the stronger twenty-two and a half cents. The stronger solution is recommended, and soak the oats in it for not less than fifteen minutes.

This last named remedy is simple and easily applied, and as the cost is not great it will pay farmers to use it rather than sow oat seed containing smut. Farmers cannot afford to sow unclean seed of any kind. When a great deal of time and trouble have been spent upon preparing the soil a special effort should be made to have the seed that goes into it pure and clean.

## British Shorthorn Exportations

According to Thornton's Circular of Shorthorn transactions for the quarter ending December 31st, 1898, there were exported from the United Kingdom during that time in all 102 Shorthorns. Of this number four went to South Africa; eight to the United States; sixty-three to South America and twenty-seven to Canada. Of the number that came to Canada fourteen were shipped to H. Cargill & Son, Cargill, Ont., and nine to Arthur Johnston, Green-

wood, Ont. The remaining four were shipped to Ontario, but the name is not given.

One of the gratifying features of this report is the increased number of Canadian importations. A year and a half ago a report from the same source which we published showed that out of 207 exportations of Shorthorns from Great Britain during three months not one came to Canada. The above importations show an increase of from no per cent. to over twenty-six per cent. But another notable feature in this comparison is the fact that eighteen months ago South America imported 195 Shorthorns during three months, while Canada imported none, but for the quarter mentioned above South America imported only sixty-three to Canada's twenty-seven. This great change in the relative number of importations for the two periods must be very gratifying to those interested in the beef cattle trade of this country. It is also worthy of note that for the quarter ending December 31st last the United States imported only eight animals to Canada's twenty-seven.

## Growing Early Potatoes

The Kansas Experimental Station has been experimenting for two years on the methods of hastening the growth and maturity of early potatoes. During 1897 some whole potatoes were set in shallow boxes with the blossom side up on Feb. 23rd. They were filled around with sand, leaving the upper fourth exposed and the boxes placed in a room of rather subdued light, and a temperature of 50° to 60°. Vigorous sprouts soon began to push from the exposed eyes. These potatoes were planted on March 22nd in furrows in the same position as they were in the boxes and fourteen inches apart in the rows. They were not cut but kept entire. Similar rows were planted of potatoes taken from the storage room and unexposed to the light till planted. As they grew the sprouted potatoes took the lead from the start and both lots of whole seed kept ahead of cut seed of the same varieties. On June 1st the sand-sprouted lots showed excellent young table potatoes, while none of the others were yet large enough for use. A week's difference was apparent in the two lots. On June 16th the sand-sprouted potatoes were still ahead in size, and at the final digging, July 24th, the sand-sprouted lots showed better tubers and 10 per cent. larger yield than the others. Last year somewhat similar experiments were carried on with about the same results.

## Sheep Feeding

In this branch of farming, as well as others, the farmer must study the markets and its needs. Many farmers in the United States, adjacent to the large cities where the demand is good, make their money out of sheep by raising early winter or fall lambs, and fitting them for the Easter market. This practice is followed to a limited extent in this country, though the market is not so large. Other successful sheep farmers follow the practice of wintering the spring lambs and selling them when about a year old. When followed properly, and the lambs well fed during the winter, there is good money in this plan. The more general plan, however, in this country is to sell the lambs off in the fall. While there may be money and less labor in doing so, the lambs are put upon the market when the supply is the largest, not only of lambs but of grass cattle. The farmer who is so situated that he can specialize a little, and have his lambs ready when a couple of months old, or when yearlings for the spring market, runs a better chance of getting the highest value for his product. In England the demand is now more for young and tender meat. Sheep of light weights seem to be more suitable, as they are generally quoted about 2c. per lb. more than heavy weights. Some butchers there would not buy sheep over two years of age. Quarters weighing from 10 lbs. to 14 lbs. make nice family cuts. The British public seems to demand early maturity, and sheep feeders there aim to supply the quality desired.



Sheep-feeding is made more of a business in the old land than here, and because of the keen competition both at home and abroad, the sheep-feeder must thoroughly understand his business. From a lecture recently delivered by Mr. William Morgan, Dunblane, Scotland, as reported in the *Farmer and Stockbreeder*, we select the following practical points on this subject :

#### HAND-FEEDING AND FEEDING STUFFS.

To do this one must resort to hand-feeding, because of the season of the year at which the lambs are weaned. They might not feed them all so heavy during winter, because part of them would be fed off in summer; still, they should be fed. There was no one kind of grain or meal that had all the required feeding properties, and, therefore, they must have a mixture. Following nature, the feeding from which they might expect the best returns might be calculated on the basis of young grass, with the addition of heat-producing substances with regard to the conditions under which the stock were kept and the season of the year in which they were fed. Oats have been used from the first for feeding, and good feeding they were, but compared with a number of food stuffs he considered them too dear to be used other than in small quantities. Among the grains of the greatest flesh-formers, they have, in the same order—beans, peas, tares, wheat, oats, rye Indian corn and barley. In seeds they have, in the same order, decorticated cotton seed, linseed, rape seed and hemp seed. Then they have the by-products of the grains in bran, dried grains, draff, malt sprouts and malt dust. All these made good feeding, but there was one not mentioned that they had found sheep very fond of, and which gives a higher percentage of flesh-formers than any of our home grains—lentils. These had fully twice the flesh-forming in them that oats had, and could be bought for about the same price per ton. Rice meal had a very high percentage of all the ingredients needed, but they had only used it in a limited quantity, and could not say much about it.

Then they had the different cakes, some of which were good and some very indifferent. Linseed cake was good, but he never thought it should be used alone, because it was low in heat-producing compared with its flesh-forming, the two being about equal. He thought that malt sprouts or cummings mixed with it would be a far better food. This produced the flesh and fat-formers, but nearly doubled the heat. Another good mixture was one of linseed cake to two of Indian corn. One that came near a good-balanced food was one lentils, one peas, and three of Indian corn. This was a very good mixture for young growing and feeding stock; if they thought it short of fat-forming, add a little bruised linseed with the oil in it. Another feeding stuff, which was more used now than it once was, and for a long time was undervalued because it was not understood, was

#### COTTON MEAL.

He thought it was the general idea that if a cake had a good percentage of oil in it it was valuable feeding, whether the other properties were in it or not. This meal was rich in flesh-forming and in fat, but low in heat. Now, if it was used alone, the body had to use up the balance off as manure. They got food of better quantities in one of cotton meal, one locust beans, one cummings. The bulkier foods of hay and straw, which must of necessity compose part of the day's food, kept a high percentage of heat-formers, so that if they got the concentrated food even near their standard of heat, they would make it up. There were three points always to keep before them. First, have a food the stock relished, second, see that it contained the properties nature had pointed out for flesh, fat, and heat forming, and, third, be guided by the market prices of the different crops for their supply of food. A wide field to gather that supply from had been opened up to them, and a great variety of crops for them to select from had been given us, and was it not our part to blend them for the greatest good and the greatest profit?

There was the question of feeding under cover. This plan few had practised as yet, but a number of enterprising men were putting it to the test, and if their results prove the same as mine they will find that for every 5 lb. live weight gained, 6 lb. would be gained inside. There are some experiments going on just now at Dunblane in feeding sheep. I will only give round figures of the foods they were getting, as the fractions will be fully gone into when the time comes. The sheep were divided into four lots, of ten each. Lot 1 got a full diet of turnips and hay; the other three lots only got a small quantity of turnips and hay, and the balance was made up with different feeding stuff to make the full diet; lot 2 got a mixture of two parts of linseed cake and one of oats; lot 3 two parts of oats and one linseed cake; lot 4 one of lentils, one of peas, and three of Indian corn. The last three lots got exactly the same quantity of dry feeding matter daily. There was a month yet to run before the results could be known, but the last weighing gave the following: Lot 1 gained 27 lb.; lot 2, 61½ lb.; lot 3, 77 lb.; and lot 4, 84 lb. live weight, from the time they were first weighed.

## Care of Milk for Cheese and Butter-Making

By T. B. Millar, Manager Thames Dairy Co.

The care of milk should begin before milking, by seeing that the cow or cows are clean, the stable or surroundings clean, as well as the utensils, and last but not least that the milker is clean.

Before commencing to milk, the cow's udder and flanks should be dampened with a damp cloth or brush. By doing this loose hairs, fine particles of dust and filth will be prevented from dropping into the milk pail, and thus much cleaner milk will be secured. The milking should be done with dry hands, and, to get the best results, should be done gently yet quickly. Immediately after milking the milk should be removed to some place where the surrounding atmosphere is pure, and then strained at once; for, no matter how carefully it may have been milked, there will be some dirt in it that should be strained out at once.

Air the milk frequently by dipping or pouring or by the use of an aerator. With regard to aerators, I may say if they are used properly and kept perfectly clean they are a good thing, but if kept only half clean they are a curse to the business, for a dirty aerator will spoil all the milk that goes through it.

In the very hot weather it may be necessary to cool the milk by the use of ice or water, but be sure the milk is thoroughly aired before doing so, and never cool the milk below 68 or 70 degrees, as it will keep quite sweet over night at this temperature, and will arrive at the factory in much better condition for cheese-making than if it had been cooled to 55 or 60 degrees.

Always remember that the milk requires airing just as much in the cold weather as it does in the hot or warm weather, for these gases and animal odors are there, and should be allowed to escape by airing immediately after milking.

Keep the milk in small quantities over night, and when it can be avoided never mix the hot and the cold milk. Send the night and morning milk to the factory in separate cans, if possible.

When the whey is returned in the milk-cans empty at once, wash with warm water, then scald and place them where they will get plenty of sunlight and pure air. Never use soap on milk cans, pails or pans. Scour with salt occasionally. See that the place where the milk is left over night is clean and far enough away from anything that will produce a bad odor, for milk is very susceptible to odors.

Occasionally, and the oftener the better, during the evening, the milk should be aired by dipping or pouring, thus preventing the cream from forming a leathery scum,

which hinders the taints in escaping. If the cream is allowed to rise and become exposed to the air it will become tough and leathery, and will not mix with the milk, consequently a greater amount of the fat is lost in the whey. The cheese-maker may get the blame, when in reality it is the careless patron who it is to be blamed. I have heard of some people who were so very particular with the milk that they never sent that nasty yellow stuff to the factory, but I have never heard a cheese-maker say that he got too much of it. Do not leave the milk cans flat on the ground or against the side of a building over night, but raise them on scantlings or something similar, in an open space, so that the air will circulate freely under as well as around the can.

A very good plan is to rinse the cans with a pail of cold water before putting the milk in them. See that your cows have plenty of good succulent fodder when the pastures are getting short, with free access to salt every day, and an abundant supply of pure water. As there is 87 per cent. of water in milk it is very essential that the water should be pure. The more water the cow will drink the more milk she will give, and we never object to watering the milk in this way.

Some of the causes of tainted milk are:—poor, decayed fodders; dirty water, whether used for drinking water or for the washing of utensils; foul air in the cow stable or cows lying in their manure; lack of cleanliness in milking; neglecting to air the milk rapidly directly after milking; lack of cleanliness in the care of milk, from which cause the greater number of milk taints arise; mixing fresh and old milk in the same can; rusty tin pails and cans.

There are hundreds of rusty milk-cans in use in Ontario, which may be to blame for the bad flavors found in a great deal of the milk delivered at our cheese factories and creameries.

It should always be remembered that pure milk can only be had through healthy cows, pure feed, pure water, pure air and cleanly handling. Every patron is affected in the cash outcome by the way his brother patrons produce and handle their milk. Hence the necessity of each adhering to sound rules based on sound, dairy sense. There is not a first-class factory in the land where good prices are obtained for cheese but what the patrons practice thorough cleanliness in the care of milk. Remember, it is a matter of profit to each to do this. As you all know, Canadian cheese has gained a very high reputation in the markets of Great Britain, but our reputation will be of little use to us unless we keep the quality of our goods up to the mark. For what do we find? Other competitors are crowding us hard for the first place, and, according to reports, the quality of their goods is almost, if not quite, equal to ours. So if we are to maintain the proud position that we now hold we must, as patrons, study and practice the better methods of production and of caring for the milk, until such time as it is delivered at the factories, endeavoring to have the milk delivered in the very best possible condition.

Then, as makers of cheese and butter, we must keep the factories and ourselves clean and tidy. Make up this milk in the best and after the most improved methods, and have our dairy products put on the markets of the world in the very best condition possible. If we all do our duty faithfully Canadian cheese and butter will command the highest prices against all competitors.

### One of the Best in Canada

LITTLE SANDS, P.E.I., March 7th, 1899

I am delighted with your paper, and consider it one of the best farm journals in Canada. The market review and forecast is well worth one dollar a year.

DAVID A. BLUE.

### Much Pleased With It

Mr. S. Flack, Fed Deer, As., writes of date March 25th, "I am very much pleased with *FARMING* lately and wish it continued success."

## Planning the Kitchen Garden

By W. H. Jenkins, in "Vick's Magazine"

If we are to have a good garden, we should begin to plan for it before planting time. If we have given the subject some study, and have in mind the plan we expect to follow, we shall then be ready to begin work as soon as the ground is in condition to work. If one has a plot of ground lying back from the kitchen, and better, if it slopes away from it, this I have found in my own experience to be the most convenient place for the kitchen garden. When vegetables and fruits are wanted for the table, one needs to go only a few steps from the kitchen door, and the slops from the kitchen can be conveniently carried to the garden and emptied around the plants when they need water. If the garden is near the house, one will be more likely to spend some of his leisure moments in working in it. It may be a question with farmers, or business men whose time is occupied, whether it pays them to grow their own fruits and vegetables; whether it is not more profitable for them to give their whole time to their business and buy their garden truck. From a financial point of view, I think it pays me to have a good garden, even if I have to hire extra help to cultivate it, for my garden saves me a good part of my grocery bill. But few people will buy the fruits and vegetables needed to keep their tables well supplied, and the only way for those in the country to make sure of a good supply is to raise them. If one has a suitable plot of ground and a little time for working it, it certainly is good economy to plant a garden.

If I had to cultivate the old-fashioned gardens that I have seen, I think that I should be discouraged, but there has been an evolution in gardening, as we can see by comparing these old gardens with the up-to-date gardens, where the labor is reduced to a minimum by labor-saving implements. It was the old plan to plant the garden in little patches or beds, as they were called, with paths around them to walk in while weeding them. For hours one must sit doubled up, sowing seeds or pulling weeds with the fingers. No horse or hand-wheel cultivators were used, and the work was done at the end of a hoe handle. In the modern, and with the best implements, the work can be so planned as to make it pleasant and profitable. In the farm garden, where there is plenty of room, it is best to plant everything in long rows, with space between them wide enough for horse culture. First pulverize the soil very fine and remove all the obstructions to the use of the garden implements. Then draw a line across one side of the plot, so as to make the first row straight, then you can rapidly sow all the plot with the garden seed drill, and have all the rows perfectly straight. Cultivate roughly between the rows with the horse cultivator, then use the wheel hoe.

As soon as I can work the ground I plant the peas, and I prefer to sow the early, medium and late peas at the same time. Next I sow lettuce, radish, spinach and onion seed, and plant a few sets for early onions. When warmer weather comes, I plant the sweet corn, and, like the peas, plant the early, medium and late kinds at the same time. Next, with increasing warmth, will come the tomatoes, cucumbers, melons, squashes, egg plants, etc., not neglecting the parsnips and salsify, which can be sown any time in the spring when the ground is in condition to work. The asparagus, rhubarb and horse radish, should be on one side of the garden, or in some place where the permanent beds will not be in the way when plowing. Use wire netting for a support for the peas and lima beans, and be sure to have a plot of limas ready for use when the peas are gone. Save some of the brush when trimming the fruit trees, and place it between the rows of tomato plants. These are better than a trellis for supporting the vines. Celery, cabbages and turnips can be grown as second crops.

If the same plot is used for a fruit garden, I would plant the fruits on one side of it, and not mix them up with the

vegetables. If fruit trees are planted, plant them on one side of the garden, where they will not take the moisture that is needed for the small fruits and vegetables. Next will come the grapes, blackberries, currants, gooseberries, raspberries and strawberries. We will suppose that the vegetables occupy the other half of the garden, and thus we have a general plan for a kitchen garden.

The question of fertilizers is one that will depend largely on what is the most available. If stable manure is obtainable, I would use it for growing the most of the crops, but for some of the vegetables it should be well rotted before using it, and this means that one must do some planning to have a supply ready for use when wanted. If the supply of stable manure should be insufficient for the garden, I would use it for most of the vegetables, and commercial fertilizers for the fruits.

The seeds should be ordered early, or in good time for the hotbed, if one is made. It will pay you to have the best tools, such as are made by reliable makers and leading firms, and to have at hand ready for use, garden rake, spade and spading fork, hoes with narrow and wide blades, marker, roller, line and dibbles. Before you commence to plant the garden, make a diagram of it on paper, and locate the place for each crop, then, with the plan before you, you are ready to go to work.

## Manures and Manuring

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

(Continued from April 11th)

### THE ACTION OF WATER.

The important action of water in manuring does not receive the attention it warrants.

I refer particularly to the soil waters termed as capillary and gravity in their action. That film which surrounds and clings to each particle of soil, or like a casing along the roots and hairs of plants in the soil forms a vehicle for the solution of plant food, and for carrying sustenance to the plant, has been explained before. To understand what is meant by capillary water one has but to observe the action of water rising from the saucer of a flower pot up through and saturating the dry packed earth. Capillaries are then tubes or chimneys which form in the soil, and up which the water climbs to the surface. If these are not broken by cultivation, during dry weather the water is rapidly evaporated and carried away by the winds. This loss of moisture by capillarity and evaporation can also be observed with the same simple apparatus, by weighing the water supplied from time to time to the saucer. The original weight of the dry soil in the pot being, of course, first obtained, a final weighing of the soil presents a very simple calculation.

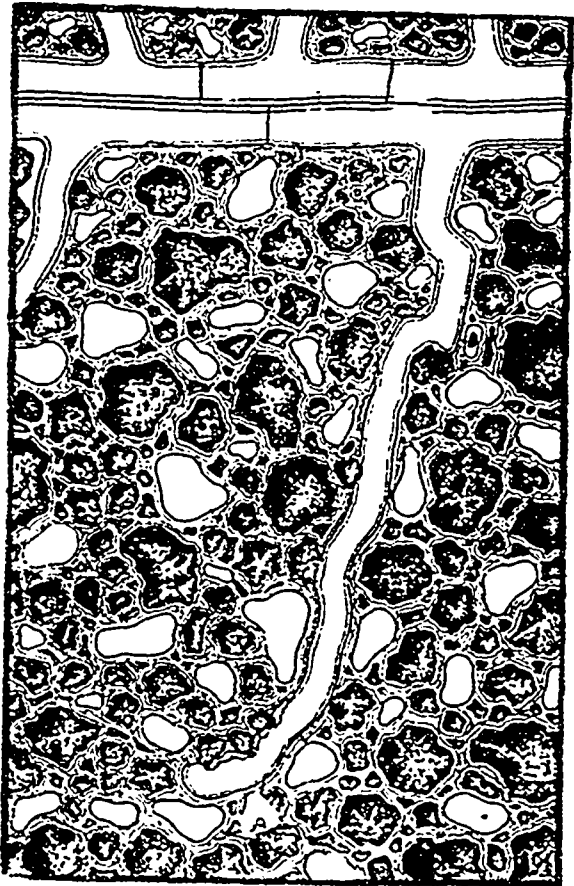
When we consider that crops use from 300 to 1000 tons of water per acre per season (and often even more), and that it takes about an inch of water all over an acre to make 100 tons, the loss of water brought to the surface by capillarity and blown away by the winds is a serious matter, which no amount of applied manure can compensate for. This shows us quite clearly the necessity and advantage of frequent surface cultivation, by which means the capillary chimneys are broken and a sort of mulch is formed for a few inches at the surface. But it is to

### THE GRAVITY WATER

I wish to draw special attention. I mean the heavy amount of water formed in the soils by fall, winter and early spring rains and melting snows. So abundantly does this accumulate that the soils are at times practically afloat in it. It freezes up pretty solidly in the winter, and in the spring, when the weather becomes milder, the swelled land bursts apart by the action of the frost. The loosened particles of material become active in the soil, and by a sort of polarity or attraction, which takes place among them,

new combinations are formed. Particles of decomposed or decomposing manures and chemicals form combinations with soil particles, and thus the foundation of plant food for the coming season's crops is formed. If then we put off our applications of manures until after the gravity water has drained off we lose much of the benefit sought to be obtained by manuring. There is no machine of man's invention which does this distributing work for us so well as the natural method described.

If you examine the dung of the animals by throwing some of it into a tub of water and stirring it up you will notice how finely most of it is subdivided. It will then be easily worked into the soil by the action of water I have described if placed on the fall ploughed land while the gravity water is still plentiful and the heavy rains assist in washing it in. While it may be suspended in solution it does not immediately become liquid and get washed away, but on the contrary forms combinations with other substances in the soil. For the same reason we observe surer and better action from phosphates, or other manuring materials reduced to a very fine powder. In understanding these things we appreciate more fully the deductions of eminent scientific agriculturists like Wagner, Maercker and others who emphasize the necessity of reducing manurial materials by fine grinding. It is true that in doing this we are but



Diagrammatic representation of the relations of the root-hair to air and water in the soil. The angular bodies are earth particles, sheathed with a surface-film of water. The root-hair descending from the root has a similar water film upon it. Larger portions of water fill in the intersutial angles. The numerous black spaces, similarly film encircled, are portions of air distributed among the mass.—From Sacke.

simulating nature, which gradually reduces straw, clover and other organic substances to fine humus powder. But this action is slow and in the struggle which competition in this age forces upon us we must use methods to produce more rapid effects. One other point suggests itself and that is the

### AIR IN THE SOIL.

A soil in proper mechanical condition should contain about one-sixth of its bulk of air, for plants take their oxygen through their roots. This is a matter which is left almost entirely to chance. The pressure of the air on the soil is only about 14 pounds, and as the gases formed by decom-

position of materials to form humus in the earth drive off the air to a considerable extent, a thorough loosening of the soil is advisable. If it were not for this pressure of the air upon the earth the water would not percolate down through the soil, as it is the air pressure which forces it down. This can be easily understood by withdrawing the air from the cylinder of a pump and note that the water then rushes upwards instead of downwards when the air pressure is lifted from it. The soil then gets its air mostly by the air following and occupying the spaces from which it ousts the water, and it then forms pockets, or rather bubbles, in the soil. Each of these bubbles, or pockets, is surrounded by a film of water. Minute bubbles constantly detach from the storage pockets and pass to the roots of the growing plant by the water which carries the other food materials.

Now we see throughout this whole operation of farming there is a

#### STEADY DEPLETION OF PHOSPHORIC ACID,

and when we consider the axiom "a good phosphatic heart is the basis of all successful agriculture," it presents to us a very serious problem. After a careful practical study of the manuring question, I am of the opinion that our best lands can be brought to produce double and treble the feeding value of the crops usually obtained from them. I also feel assured from successes which I have observed that our seemingly worn-out lands can, under rational methods of cultivation and manuring, be profitably brought to the highest condition of agriculture. I will even go so far as to say that the richest wheat lands of Manitoba are only half producing. The qualities of our

#### ONTARIO GRAINS

can be materially improved. Our fodders and roots can be doubled and trebled in their feeding value. Our fruits can be improved, both in keeping and nourishing qualities. Grapes can be increased in quantity of yield and improved in the quality of the wine they produce. The attacks of fungoid diseases can be lessened and even the ravages of insects withstood by properly grown crops.

The tendency of the age has been either to manure blindly or else to manure too accurately, by which I mean a hand-to-mouth plan of attempting to suit just what we consider the requirements of the plant's existence. Indeed if it were not possible to greatly increase the productivity of the land, there would be a poor outlook for the continuation of the human race for another century. I am, however, no pessimist, but rather an optimist. I have faith in Mother Earth, and I want to see Canada take the lead in showing the world that the path to health, wealth and contentment lies through the meadows and the grain fields and beneath the orchards and the vineyards. But this path must be hewn out by the Axe of Industry, turnpiked by the Plow of good Husbandry, and kept in condition by the Cultivator's Art, under the administration of True Economy.

### Would Not Lose a Copy

HAMILTON, P.E.I., March 20th, 1899.

GENTLEMEN,—Please find enclosed \$1 for which send FARMING for one year from March, 1899. Have taken FARMING from the start. Occasionally I lend the paper, but would not lose one on any account.

Yours,

A. E. SIMPSON,  
Hamilton, P.E.I.

### A Dollar Well Spent

CLINTON, ONT., March 23rd, 1899.

GENTLEMEN,—Enclosed you will please find cash \$1 to pay my subscription for FARMING for the year ending 31st December, 1899. I like your paper very well and consider it a dollar well spent to any one interested in farming.

Yours truly,

HENRY PLUMSTEEL.

## CORRESPONDENCE

### The Kind of Cattle for Export

To the Editor of FARMING:

I read with much interest Mr. Bowman's letter in FARMING of January 17th on "Breeding Cattle for the British Market," and the idea struck me that while Mr. Bowman claims so much for the Angus or the Angus grades he forgot to tell the public that there were other breeds. I have been a breeder of Devons for the past thirty-five years, and they are my favorites, and at the present time I do not know of any breed that I could invest in that would please me as well or pay me better to keep; but I do not think that they are the only good breed. Every man to his own fancy, however. While the "Rubies" are holding their own in the controversy going on in the Chicago *Breeder's Gazette* during the past year in reference to the dual purpose cow, I think they can also hold their own as an export cattle, being such easy feeders and coming early to maturity. I at one time raised a steer from a scrub of a cow crossed with a Devon bull. It never tasted meal until two years old. I sold it when two years and ten months old for export, and it weighed 1,500 lbs., and the price paid was 7c. per lb., and it was pronounced to be the best carcass killed in the Glasgow market that season. I have a few grade Devons at present that I think would be no disgrace to any yard; some of them I hope you will hear from in the near future.

Mr. Bowman seems to be very proud of his four-year-old grade Angus heifer, and I think he has every reason to be. She was as fine a specimen of the breed as I ever saw, but it is a good animal that cannot find its equal. I fed last year a Devon cow seven-year-old that had raised two calves. She met Mr. Bowman's heifer four times in the show ring. Twice the Devon came out ahead, with butchers for judges, and twice the Grade Angus with breeders for judges. I think this very good, considering that one was a cow and the other a heifer.

Yours respectfully,

Eden Mills, Ont., April 5th, 1899.

W. J. RUDD.

### The Dog Nuisance

To the Editor of FARMING:

I am very pleased indeed to notice a number of your correspondents discussing the dog sheep question. I think we fail to have anything like a true conception of the importance of this question—of its vital importance to our agricultural interests. There is no question but that if it were not for dogs there would be thousands more sheep kept in this country. Now, how are we to overcome this difficulty? We must devise some method that will rid the country of a great horde of the miserable curs that infest our land. I feel certain that at least four-fifths of the dogs in this country ought to have their tails cut off close behind the ears, and top-dressed with a little earth, as it would increase their usefulness very materially. As far as I am concerned, I cannot find room on my farm for a dog of any sort. They do more harm than good in nine cases out of ten.

It is, however, time this matter was taken up seriously, and means devised whereby we shall be relieved of a great deal of worry and loss as sheep-raisers. It does appear to me that the license fee ought to be raised. The sum of \$1, which appears to be the universal fee, is certainly too small. It should certainly not be less than \$3, or better still, \$5. There is another thing which ought to be remedied. As it is now, it is almost impossible for a farmer living in the immediate vicinity of a town or city to keep sheep on account of the dogs in the town. There ought to be some arrangement whereby the dog tax in the town, would go to pay the damage done by the town dogs in the country.

We could give instance after instance where sheep were worried by dogs from the town, but the country mu-

nicipality had to pay the bill. It appears to me that this matter might be controlled by the county councils. Then everybody who succeeded in giving a dog trespassing away from home a drop of cold lead ought to be rewarded. A dog does not need to attack a flock of sheep to do them damage. A sheep is a very nervously constructed animal, and a dog simply straying across the pasture certainly does them an injury by frightening them.

I say give us a law that will raise the dog tax away up; shoot every dog found away from home, and pay a reward for doing so. Arrange the dog tax so that town and city will contribute alike to the damage done by the useless dogs. This is surely a matter that could be very profitably taken up by our Farmers' Institutes and Sheep breeders Association. It is certainly time something was done. We have been "grinning and bearing" it long enough.

Yours truly,  
JOHN TAYLOR, JR.

Galt, Ont.,  
April 17th, 1899

## Provide Pasture for Hogs

TO THE EDITOR OF FARMING.

Swine raisers should make it a point to sow pasture crops this spring for their hogs. The two best crops, aside from alfalfa, are peas, oats and vetches, and rape. For the average farmer with, say, three spring litters, all to be fattened for market, two acres should be set aside to give pasture crops for the pigs. On one acre sow peas, oats, and vetches, and on the other rape. The first acre should be divided into two parts, one-half of the vetches mixture should be sown by May 1st, and the other some weeks later. The proportion for one-half acre may be half bushel of each—of peas, of oats, and of vetches. This crop will be ready for the hogs when five inches high. The acre intended for rape should be well worked during the month of May, and given a light dressing of manure. The rape seed may be sown early in June in drills at the rate of two pounds of rape and one-half pound flat turnip seed to the acre. Those two acres, thus prepared, should afford ample pasture for the hogs right through the growing season, and will be equal to three tons of the best mill feed. Hogs pasturing on this feed should receive mill feed morning and night—about two pounds per day to a pig of 100 to 125 lbs. in weight, more or less according to the

growth of the pasture. Don't depend on red clover. Even at best it makes poor pork. Red clover is responsible for much of the soft pork in the market, whether correctly so or not I do not know.

*Alfalfa, Sorghum.* There are two crops that our farmers who raise pigs should give a trial this spring. I believe alfalfa to be the best pasture for swine of any. A few of pounds of alfalfa seed sown in even a quarter of an acre nicely prepared land would be but a small return. Sorghum is another crop that our farmers should not fail to give a trial this spring. A dollar's worth of the seed sown broadcast on a piece of ground, free of weeds, about June 1st, might possibly be a paying investment in all parts of Canada. For siling swine sorghum is highly recommended. It may be cut twice in the season and for this purpose is ahead of corn.

*Crimson Clover.* Mr. Powell, of Ghent, N.Y., strongly recommends crimson clover for a hog pasture. In order to get the greatest benefit from the crop of this year's sowing he recommends that some red clover be mixed with it. It grows much faster than red clover late in the season. If sown in June and July it certainly will make a splendid fall pasture. Crimson clover deserves a trial by our farmers.

*The best one crop for Hogs* is, by all odds, clover and rape, sown early on well prepared and fertilized ground, in the proportions of twelve pounds mixed clover seed and five pounds rape. This crop will afford a pasture for hogs eight weeks from sowing and right through the season till late fall. The following mixture is suggestive. 4 pounds red clover, 4 pounds mammoth, 4 pounds Lucerne and 5 pounds Dwarf Essex rape, if the land is low and inclined to be wet a few pounds of Alsike should be added.

Remember, farmers, that one acre of pasture crop will save you two tons of best meal, such as shorts, bran, etc. If you have to pay \$20 per ton for such feed, as the writer has, an acre of any of those pasture crops is worth for swine feeding \$40. Pasture crops of the right kind save, on an average, one half the purchase money of heavy feeds. Two tons of mill feed and an acre of good pasture crops will make one ton of live pork, while it is barely possible that four tons of mill feed alone will make an equal amount of live hogs.

J. A. MACDONALD.

Hermanville, P. E. I., April 11th, 1899.



TO THE VICTORS BELONG THE SPOILS.

# The Farm Home

This Department is Devoted to the Farm Home and to the moving spirits thereof—the Farmer's Wife and Daughters and their active co-operation is asked in making it as useful and interesting as possible.

## The Teaching of Domestic Science.

Elsewhere we give a resume of a report on domestic science by Mrs. Hoodless, in which it is intimated that the teaching of domestic science and sewing is likely to be inaugurated in our Public Schools. In all probability, if these subjects are put upon the curriculum, it will be some time before they are taught in rural schools. We are of the opinion, however, that what is good for the city pupil is also good for the country pupil, and we would be glad to have the views of the farmers' wives and daughters as to the practicability and advisability of teaching domestic science, sewing, etc., in country schools. In the Good Book it says, "Ask and ye shall receive." The same law holds good in secular matters, and if the wives and daughters of the farm desire these practical subjects to form part of a girl's education in the rural school let them make their wants known, and we will gladly give them the opportunity of doing so in these columns.

While it may not be feasible at the start to put all the appliances in a rural school necessary to give practical lessons in cooking, etc., yet, if the teacher has made a study of this subject and is able to give some useful information in regard to the value of foods and their relation to growth and health, a great deal of good can be done. And, then, say once a month, a competent person might be engaged with a travelling outfit to give a practical demonstration or two in the school, at which not only the girl pupils, but their mothers, could be present. An hour a week devoted to teaching the older girls in the schools sewing, and such like, would make the education given in our schools of more practical value than it is now.

## The Country Home.

The country home should be the ideal home. Whether it is so or not will depend upon those who occupy it. While the home in the city may have more up-to-date luxuries and more conveniences in the way of heating and lighting it lacks that quietness and comparative seclusion necessary to make the home what it should be. Except perhaps in the case of light the farmer of to day can have every convenience and up-to-date improvement in his home that the person living in the city has, and in addition that quietness and peace which the country alone can give it.

There are evident signs of a healthy reaction in favor of country life and

rural pursuits. Many business men who have worked hard for many years to earn a competency, after they have attained that end, seek cosy homes in some rural district or in the outskirts of the large cities where all the advantages of a country life prevail. Then the very wealthy are more given to having luxuriant country homes than was the case some years ago. This fact is very noticeable in the United States, where the number of wealthy residents of the large cities who have elegant country homes is gradually increasing. Such homes enable them to get away from the turmoil, excitement and rush of the great city, and amid the quiet of a rural district enjoy life surrounded by that healthfulness, independence and peace which a touch of nature always gives.

In an urgent plea for the country home a writer in one of our American exchanges says. "The small farm, fully equipped, thoroughly stocked, highly fertilized, with its permanent pasture lots and orchards with improved appliances for the dairy and modern conveniences for poultry raising, with a bountiful garden, and, lastly but not least, with its attractive, commodious, convenient and comfortable cottage—makes the ideal home of which poets may sing and lovers dream. If the master of such a home is a practical farmer himself, fully informed, as he should be, in the minutiae of crop raising, in horticulture, in the care of live stock, he can with unskilled help conduct his business with success and pleasure. If he works with intelligence, thrift and frugality, he will always have something to sell, be thoroughly independent, and, if in close proximity to a steam or electric road, his family can have many of the advantages of city life, while at the same time they enjoy the freedom, independence and healthfulness of their country home.

"And so in my plea for the country home, I would have you remember that it is the nursery where the fledglings in human form can have the safest, the purest, the noblest and the truest development. Where the trees assume most graceful proportions, and the flowers are of richest hues and sweetest fragrance, there, too, will childhood blossom most perfectly and grow into the most beautiful maturity."

## The Place of Man in His Home.

The seclusion of a home gives to a man a certain amount of freedom and attendant privileges which no other place in the world affords, and it is right that it should. But it is not right that this freedom and those

privileges should be abused to the disadvantage of the wife.

Too many men seem to have the idea that they can drop into constant disconsolate and churlish moods at home with their wives which in any other place and by any other person would not be tolerated. It is when a man is within the walls of his home that he is himself. Then it is that he should be at his best. When a man gives the best that is within him to those closest to him, his home will be the ideal place that he wishes it to be.

No man has a right to expect from his wife what he on his part does not give her. If he wants her sympathy, he must give her his consideration. If a man lacks the element of consideration, he should cultivate it, not for the benefit of his friends, but for those in and of his home. Consideration should begin at home, not in the home of friends, as it often does—and ends there, too. The atmosphere which a man creates in his home by example becomes the rule by which his children live. The husband and father strikes the key-note for right or wrong living.


## Maxims for Health.

A French firm recently offered a prize for the ten best maxims for preserving the health. The following are the prize-winning maxims:

(1) General Hygiene: Rise early, go to bed early, and in the meantime keep yourself occupied. (2) Respiratory Hygiene: Water and bread sustain life, but pure air and sunlight are indispensable for health. (3) Gastro-Intestinal Hygiene. Frugality and sobriety are the best elixir vitæ for a long life. (4) Epidermal Hygiene. Cleanliness preserves from rust; the best-kept machines last longest. (5) Hygiene of Sleep: A sufficiency of rest repairs and strengthens; too much rest weakens and makes soft. (6) Hygiene of Clothing: He is well clothed who keeps his body sufficiently warm, safeguarding it from all abrupt changes of temperature, while at the same time maintaining perfect freedom of motion. (7) Dwelling Hygiene: A house that is clean and cheerful makes a happy home. (8) Moral Hygiene: The mind reposes and resumes its edge by means of relaxation and amusement, but excess opens the door to the passions, and these attract the vices. (9) Intellectual Hygiene: Gaiety conduces to love of life, and love of life is the half of health; on the other hand, sadness and gloom help on old age. (10) Professional Hygiene: It is your brain that feeds you, don't allow your arms and legs to

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*Grows large roots*  
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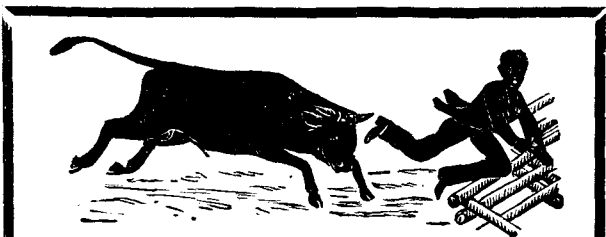
**STEELE, BRIGGS' "JUMBO" Swede**  
 Grows handsome, tankard-shaped roots, of a purplish-erimson color above ground, yellow beneath; stands well out of ground. **grows roots of giant size.** Price (post-paid) 1/4 lb., 10c.; 1/2 lb., 15c.; 1 lb., 24c.; for 5-lb. lots and over, 21c. lb.

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 For over ten years the favorite with best growers; even, hand-some shape and a great cropper. Many tons of seed are required annually to supply the demand for this fine variety. Price (post-paid) 1/4 lb., 10c.; 1/2 lb., 15c.; 1 lb., 24c.; for 5 lb. lots and over, 21c. lb.

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**ASK FOR THEM**

SOLD BY CAREFUL MERCHANTS



**FORCIBLE POINTERS** Whatever crop you grow, success or failure is largely governed by the seed used. **Successful growers always use the best seeds obtainable.** All seeds have a value, which varies according to the care and selection of stock in producing them; indifferently grown seeds cost less to produce and permit of being sold at like low, "cheap" prices—**Like produces like.** The labor necessary to grow a crop with "cheap" seed is the same as when using the best seed—**then why incur unnecessary risk by using "cheap" seeds?**

**THE BEST CROPS ARE GROWN FROM ... Steele, Briggs' Seeds ...**  
 BE SURE THAT YOU GET THEM WHEN BUYING

## ENSILAGE CORN

LARGEST STOCKS OF BEST KNOWN VARIETIES

**Mammoth Cuban Yellow Dent Corn** The heaviest ear producing variety, with a favorable season has yielded 3 1/4 tons of ears per acre, and ripens in most parts of Ontario. Price, 1/2 bush., 45c.; bush., 85c.; 2 bush. and over, 80c. bush.; bags, 15c. each.

**EARLY HURON YELLOW DENT CORN**

One of the earliest dent varieties in cultivation, a strong grower, stalks and ears of good size, small cob with deep grain, productive. Price, 1/2 bush., 50c.; bush., 90c.; 2 bush. and over, 85c. a bush.; bags, 15c. each.

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**The Steele, Briggs Seed Co. LIMITED** Toronto, Ont.

become ankylosed. Do you dig for a livelihood, don't omit to burnish your intellect and elevate your thoughts."

**Good Potatoes.**

The secret of good potatoes, in themselves and for croquettes, fish balls, potato cakes, etc., depends on the simple fact of having this vegetable cooked so that it is left "mealy" instead of hard and flat like bits of soap. In order to produce this result they must be cut, if of large size, thrown into boiling salted water, boiled for twenty minutes to half an hour, drained thoroughly and put back on the top of the stove for a few seconds. They should be in a saucepan with a good length of ladle; this must be taken firmly in the hand and the potatoes tossed to let out the steam, and also to prevent their sticking to the bottom; this must be done once or twice. When the potatoes look white and floury they should be placed on a warm, not hot, part of the range, and covered, until needed, with a clean cloth, which will absorb all surplus moisture.

**The Care of Mattresses.**

The feather bed is, of course, a thing of the past. It is probably not lamented in many quarters, as it is certainly unhealthy, difficult to care for, and not pleasant to sleep on. Mattresses, blankets, pillows and other articles of bedding, however, require much care to keep them odorless and clean.

The main enemies to mattresses are dust, damp and moth, and frequent brushing must be given them, for in an incredibly short time they will harbor dust all along the edges and where the button is fixed.

It is very important to air all the bedding thoroughly. Every article should be daily taken off and laid separately over a chair, and a strong current of air should be allowed to circulate through the room before the clothes are replaced. The mattress should be turned daily from end to end, as this insures it being worn more evenly, and not sinking in the middle.

**Points on Ironing.**

There are some things concerning ironing which incompetent laundresses seem never able to learn.

The starching should be solid, stiff enough to stand wear, and flexible enough to give to your movements. After ironing, the work should have a perfectly smooth surface, and a fine, even finish, without gloss. Open-front shirts should be so ironed that the two sides will lie perfectly flat, and the stud holes come together to allow the stud to be inserted without bulging the bosom.

The bosoms of shirts should be free

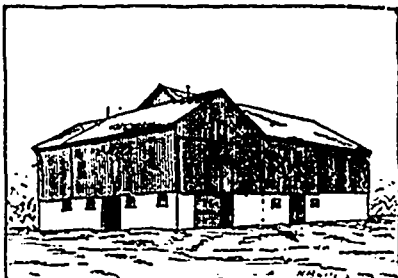
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SPEAKS FOR ITSELF



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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.

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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.

**Ask for  
Eddy's**

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

**BINDER TWINE**

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

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

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

**CONSUMERS' CORDAGE CO.**  
LIMITED,  
MONTREAL.



from wrinkles and blisters at the neck, the neck-bands should be ironed in their original shape, and set up at right angles with the bosom to allow the neck free play. The wing points of standing collars should have the same finish as the balance of the collar, and the edges should be smooth so that you can turn your head without scratching your neck. The very stiff work does more damage to your linen than washing and wear combined. Solid and flexible is the thing.

#### A Handy String Ball

The woman who carefully preserves the twine used to tie up the tea and sugar that comes into the house saves herself many steps and some wear and tear of temper. One housekeeper's way is to take a strong cord (the kind used in hardware shops), long enough to reach from a moulding near the ceiling, to a couple of feet above a table. One end is fastened securely to a small empty spool, upon which, from day to day, the bits of string that come to hand are carefully wound. The other end is suspended from the moulding, in a corner of the kitchen, where it is at once out of the way, yet conspicuous. The plan commends itself for its simplicity. That string ball is a downright comfort to every member of the family.

#### An Attractive Salad.

Do you know what a very attractive salad can be made by using celery and red cabbage? Attractive to the eye as well as to the palate. Cut off the outside leaves of the cabbage, remove all of the stock and ribs and cut the rest into shreds. Then cut the best stalks of two heads of celery into inch pieces and mix with the cabbage in the salad bowl, heaping it a little in the centre. Around the edge of the bowl, in a manner to suit your eye for an artistic arrangement of things, put the fresh green leaves of the celery as a garnish. Over all pour a dressing made of a beaten egg, a tablespoonful of oil, the same of vinegar, a saltspoon of salt, red pepper as you like it, and just a grain of mustard. Let the salad stand, after it is prepared, for fifteen minutes or so before serving.

#### Try.

Try brightening silverware by rubbing it with oatmeal.

Try cleaning windows with chamois skin, or with a little alcohol.

Try removing a window pane by applying a hot poker to the putty.

Try several thicknesses of carpet lining to make a soft floor covering.

Try hanging pictures so that the centre is on a level with the average eye.

Try to drive away ants with borax mixed with Persian insect powder.

Try washing red table linen in water in which a little borax has been dissolved.



**STEEL CEILINGS FOR CHURCHES**

HALLS, THEATRES, PUBLIC BUILDINGS, PRIVATE RESIDENCES, SCHOOLS, LODGE ROOMS, STORES, ETC.

**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.

#### 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.

## LAND For Everybody

Free Grants of Government Lands

Cheap Railway Lands for Sale on Easy Terms

**GOOD SOIL      PURE WATER      AMPLE FUEL**

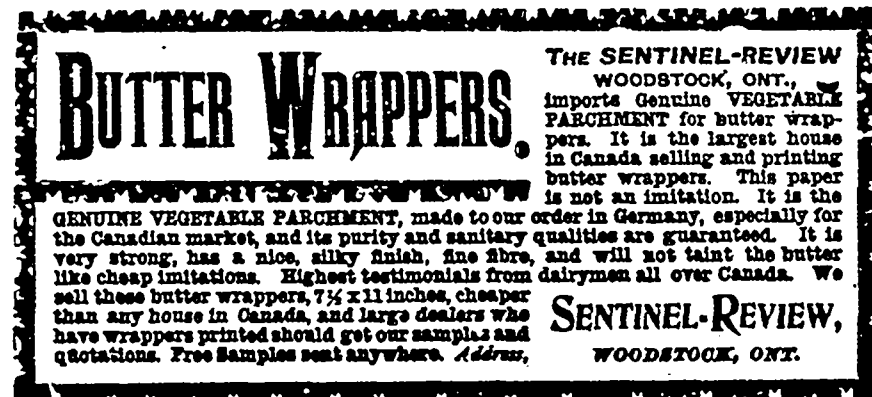
**MOST** desirable lands suitable for mixed farming can be obtained in the Old District along the line of the Calgary and Edmonton Railway, about fifty miles North of Calgary. Most desirable lands can be obtained in Southern Alberta in close proximity to the Calgary and Edmonton Railway and the Crow's 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 Rosthern 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., WENNIPEG.

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**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.

**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.

## Winona Nursery Co.

**OFFERS FOR**  
**SPRING of 1898**

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.

Try feeding caged birds with not only seed, but also lettuce, sorrel, and celery top.

Try to remember that large pictures, or greatly projecting frames, lessen the apparent size of a room.

Try to toughen lamp chimneys by setting them on the stove in cold water which is allowed to come slowly to a boil.

Try sewing a strip of carpet webbing two inches wide tightly on the underside of a rug, close to the edge, to prevent it from curling up.

Try to take out fruit stains in linen by using powdered starch; or, pouring boiling water through the stain; or, washing in hot milk; or, a weak solution of oxalic acid; or bleaching, while apple trees are in blossom.

### How to Clean Paintings.

To clean an oil painting, take it out of its frame, lay a piece of cloth moistened with rain water on it, and leave it for a while to take up the dirt from the picture. Several applications may be required to secure a perfect result. Then wipe the picture very gently with a tuft of cotton wool, dampened with absolutely pure linseed oil. Gold frames may be cleaned with a freshly-cut onion; it should be wiped with a soft sponge wetted with rain water a few hours after the application of the onion, and must finally be wiped with a soft rag.

### Natural Development.

Stiff, heavy shoes should never be put upon a child, even when it is two or three years old. Some will say, "But the ankles should be supported." The ankles should be allowed to grow strong by natural development, which this common practice of "supporting" always hinders. The weakest ankles in children and among adults are those which have long been artificially supported.—*Eva Eloise Moore.*

### Questions and Answers.

#### Sheep Worried by Dogs.

To the Editor of FARMING:

I think the suggestions by "Norfolk Subscriber" re sheep worrying and the dog tax are good and just the thing. There has been a great deal of sheep worrying here of late years. In fact, my own flock was worried the week before last and one killed and the rest half killed.

Please give us an idea of what the present law is. Can a person shoot the dogs on the spot, or can the owners of the dogs be made to kill them? This and any other information will greatly oblige a subscriber.

JOSEPH GOODWIN.

Palmerston, Ont., April 10th, 1899.

The present law regarding sheep and dogs provides that a tax of \$1 a year be levied on every dog, \$2 on every bitch and \$10 for each kennel of pure-bred dogs provided the dogs are registered in the "Canada Kennel

# PUREBRED POULTRY

**FREE**  
TO FARMING READERS

There is money for every farmer and farmer's son in raising purebred poultry. Every condition requisite to the successful breeding, feeding, selection and fitting of the fowl is present on the farm. Utility breeds are all right and are best for the farmer for all general purposes. But there is a rich profit in raising the fancy breeds as well, and who is so well equipped for this business as the farmer? Sales of poultry have been made this year which have netted the breeders larger profits than have been made on any other kind or variety of stock. Mr. J. W. Shaw, of Brooklin, Mass., sold in one shipment nine birds for \$400, and Mr. A. C. Hawkins, of Lancaster, in the same State, has reported the sale of eleven Wyandottes for the same figure. The possibilities are great if a start is made in the right way with the right kind of stock. We offer anyone willing to devote a few hours each week to securing subscriptions for FARMING—an opportunity which should not be neglected. This applies to the youths and young men particularly. There will be no difficulty in getting the required number of subscribers. Write at once and secure an outfit. When it is received select the varieties of poultry you think will prove most profitable and go to work with a determination to succeed. Your friends and acquaintances will help you. An outfit will be furnished entirely free to any FARMING subscriber. The following is a list of our premiums:

### PAIRS FROM PRIZE-WINNING STRAINS.

For five new yearly subscriptions at \$1 each we will send, carriage paid, to any railway station in Ontario, a choice of one pair from either of the following varieties:

One Pair of Brown Leg-horns—regular price...	\$5 00
One Pair of B. Langshans	5 00
“ “ Barred Plymouth Rocks.....	6 00
One Pair of S. L. Wyandottes.....	5 00
One Pair of Blk. Minorcas	5 00
“ “ S. G. Dorkings	5 00

### PEKIN AND ROUEN DUCKS

For two new yearly subscriptions, as above, we will send one setting of eleven eggs.

### EGGS FOR HATCHING

For two new yearly subscriptions at \$1 each we will send free, carriage or express paid, one setting of thirteen eggs from any one of the following varieties of purebred prize-winning stock; regular price \$2 per setting: S. G. Dorkings, B. Langshans, S. L. Wyandottes, Black Minorcas, Barred and Snow White Plymouth Rocks, Buff Leghorns, Single or Rose Comb White or Brown Leghorns, B. Cochins, Cornish, Black, Red or Pit Games, S. Spangled and Golden Pencilled Hamburgs, or Silver, Golden, and W. C. B. Polands.

### BRONZE TURKEYS

For six new yearly subscriptions, as above, we will send one setting of nine eggs.

**THESE ARE ALL FROM THE BEST STOCK OBTAINABLE AND ARE GUARANTEED BY THE BREEDERS TO GIVE GOOD SATISFACTION**

For Outfit and Complete Instructions address

# FARMING

Confederation Life Building - - Toronto, Ont.

Registry." Upon the petition of 25 ratepayers the council of any municipality, city, town, etc., may provide a by-law whereby said tax or part of it may not be levied. The assessor is authorized to enter all dogs in the roll when he makes his annual assessment.

In respect to the protection of sheep the law reads thus:

"Any person may kill: (a) Any dog which he sees pursuing, worrying or wounding any sheep or lamb; or;

"(b) Any dog without lawful permission in any enclosed field on any farm which the owner or occupant thereof or his servants finds giving tongue and terrifying any sheep or lambs on such farm; or;

"(c) Any dog which any person finds straying between sunset and sunrise on any farm whereon any sheep or lambs are kept."

The exceptions to the above are: Any dog belonging to or kept or harbored by the occupant or owner of any premises next adjoining the said farm or that part of the highway adjacent to it, or any dog securely muzzled or when accompanied by or within reasonable call or control of any person owning or in charge of said dog, unless there is reasonable apprehension that such dog, if not killed, is likely to pursue sheep on the same farm.

Persons owning dogs addicted to worrying sheep may be summoned before a justice of the peace. On conviction the dog has to be killed within three days or the owner fined. The owner of sheep killed or injured by dogs is entitled to recover damages from the owner of the dog whether the latter knew of it or not. When the owner of the dog is not known the owner of the sheep killed or injured may within three months apply to the municipality and be awarded damages to the value of two-thirds of the loss sustained. When sheep are worried on highways or unenclosed lands the owner cannot make no claim for damages. Where a council decides not to levy the dog tax, damages for sheep worried by dogs can be collected the same as if the tax were levied.

#### Pasturing an Orchard After Spraying.

Mr. W. J. Rudd, Eden Mills, Ont., writes: "I have an orchard I intend using for sheep pasture. Will it be injurious to pasture the sheep there after spraying the trees with the Bordeaux Mixture?"

We submitted this question to Dr. Fletcher, Entomologist, Central Experimental Farm, Ottawa, who writes us on date, April 14th, as follows: "In reply to your subscriber who has an orchard which he intends using for a sheep pasture and wishes to know if it is safe to pasture sheep there after spraying the trees with Bordeaux Mixture, I would say that if the spraying is done properly, only applying the liquid until it begins to drip from the leaves, there is practically no danger. Of course, if your subscriber preferred to wait until after a shower of rain, it would be even safer, but this is not

# SEED PREMIUMS!

## Field, Garden and Flower Seeds as Premiums 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.

**Mandeschauri 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 Brome 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, 50c. 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 new yearly 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

considered necessary when spraying is properly done, as recommended in the publications of this division."

**Prince Edward Island Fruit-growers' Association.**

Annual Meeting at Charlottetown.

The annual meeting of the above association took place at Charlottetown on March 21st. The attendance was large and representative.

President Bayfield presided. The auditor's report showed a balance on hand of \$78.79. Senator Ferguson's report re shipments of apples, etc., was next read. Then followed the directors' annual report, which embraced a detailed statement of the various shipments of fruit to Great Britain during the year, also urging the necessity of inspection and handling at shipping ports.

President Bayfield delivered his annual address. He said, among other things: "On the same quantity of land twenty cents' worth of potatoes can be grown and a dollar's worth of apples. It is, therefore, five times more profitable to grow the latter. Yet, the reason the former are grown is because our farmers know all about growing potatoes, and, as a general rule, know little about fruit."

Mr. Joseph Nise, Commissioner to Britain on Prince Edward Island trade, gave a brief report of the manner in which apples were tested in London after arrival there.

Rev. A. E. Burke, of Alberton, moved the following resolution, which was adopted: "That the Department of Agriculture be requested to remedy the defects in the shipping facilities in all steamers, and establish a system of registration of transportation in the holds of vessels," etc. John Robertson, Inkerman, gave a list of apples according to points of merit in the markets.

"The Northern Spy," he said, "should be top-grafted. The Wealthy was not a hardy tree, but a good bearer. R. I. Greening was a good healthy tree. The Mann was also good."

H. A. Stewart read a paper entitled "Some Things Essential to Fruit-growing." The Gideon, he said, was a poor bearer; the Wealthy succeeded well; and that the Ben Davis was also a good variety. For early apples he found none to take the place of the Dutchess, Yellow Transparent and Red Astrachan.

His Honor Governor Howlan read a list of the best selling varieties in London. Hon. Premier Farquharson made an encouraging address, promising additional assistance.

Mr. Fred. Bovyer was of the opinion that these experiment stations were of no use whatever. He studied the ones we had already in other sections of Canada, and found very little success or any benefit from these stations. He considered if the farmers them-

You know there is much more painting done now-a-days than of old, but did you know there is a far better way to do it? Painting is no exception to other things. The art has not stood still. You can still buy some white lead (are you a judge of it?) and some oil (are you a judge of that?) and find a neighborly painter and have some paint made; but as sure as you are alive there is a better way.

**THE SHERWIN-WILLIAMS PAINT**

Are you awake to the fact that you can get a paint that is made for the particular work you want done, of the best materials combined in the best proportions, mixed in the best way; and that will do more than any other paint will do? If this is not true, then The Sherwin-Williams Paint factory with its tons of daily output and its thirty years of wonderful growth is a pure miracle. "Paint Points" will help you paint right. It's free.

**THE SHERWIN-WILLIAMS CO.,**  
PAINT AND COLOR MAKERS,  
Canadian Dept., 21 St. Antoine St., Montreal.

**FREE!** This lovely little lady's watch with guard or chateleine for selling 3 doz. of our full-sized Linen Doyleys at 10c each, Lady's Sterling Silver Watch for selling 5 doz. Doyleys in latest and prettiest design. They sell at sight. Write and we send them postpaid. Sell them, return our money and we promptly forward your watch free. Unsold Doyleys returnable. **LINEN DOYLEY CO., Dept., 1431 Toronto.**



**BIG MONEY FOR AGENTS**

**THE STAR RIVETER**

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

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

selves would take different varieties and test them we would have a thousand or more tests, where we would only have one at the experimental station. Farmers should get themselves above the begging list and act for themselves instead of running after government aid. They should be able to teach any government about farming and fruit growing instead of the government teaching them.

This discussion was continued by Messrs. John Robertson, John Ferguson, C. R. Dickie, and Arthur Simpson.

The committee on varieties then submitted their report as follows :

FOR HOME

Summer—Gravenstein and Dutchess.  
Winter—Wealthy, Baldwin, and Ben Davis.

FOR EXPORT.

Alexander, Mann, Ben Davis, King, Wealthy, Golden Russet, Ribston, Pippin, and Nonpariel.

*Note.*—As part of the manuscript containing this report was mislaid in the sending it has been delayed in publishing.—EDITOR.

British Columbia Fruit Growers

The Executive of the British Columbia Fruit Growers' Association have decided to send a competent man to the Northwest to keep fruit-growers posted as to market conditions, prices and best methods of transportation during the shipping season. An expert in fruit-packing will be secured to give information as to the packing condition of fruit for shipment, loading cars, etc. The Association will act only in an advisory manner in regard to the shipping of fruit to the Northwest, but will undertake the shipping of a car-load of fruit to Winnipeg at the commencement of the season with a view of demonstrating the superior quality of British Columbia fruit. The Association will also take up the question of freight rates thus with a view to obtaining better terms.

Dairy Stock Wanted in British Columbia.

The Dairymen's Association of British Columbia, in view of the scarcity of dairy stock and the difficulty of obtaining it in many of the districts of the province, has made arrangements to receive and exchange information between farmers, breeders and others, free of charge, regarding the purchase of stock. Members of the Association are asked to send in to the Secretary a list with full particulars of the stock they have for sale. The Association will also undertake the purchase of stock in the east, through the assistance afforded by the Secretary of the Ontario Live Stock Association, Mr. F. W. Hodson. The Secretary of the British Columbia Association is Mr. G. H. Hadwin, Duncan, B.C.

The Finch Wood Preservative and Paint Company

34 to 36 Atlantic Ave., Toronto, Ont.

MANUFACTURERS OF THE

CHEAPEST PAINT ON EARTH

For farmers' use—for Barns, Shingle Roofs (old or new) where cheapness and durability are desirable. Used and highly recommended by the Councils of Toronto and Montreal, Toronto Board of Education, the Industrial Exhibition and the Ontario Government. Write for Circulars. Agents wanted. d-5-23



FREE

This hand-some but a watch with a chain and charm for selling two doz. dainty packets of Healy's Grape, Rose and Violet Perfume at 10c. each, or this pretty lady's watch with a chain and a guard for selling three dozen. Write and we send the perfume. Sell it, return the money, and we forward your watch all charges paid.

HOME SPECIALTY CO. Dept. 143 TORONTO, CAN

Woodstock Steel Windmills

FOR POWER AND PUMPING



Get a DANDY

WITH

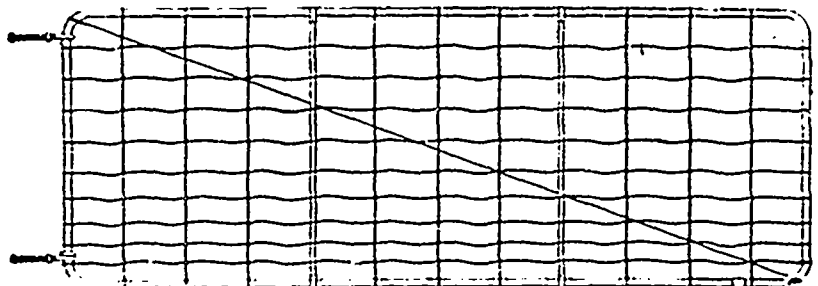
GRAPHITE BEARINGS They Run without Oil.

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

WOODSTOCK WINDMOTOR CO., Limited

Woodstock, Ont.

THE STRONGEST ALL-METAL GATE EVER BUILT



Price complete, including Hinges and Latch, delivered at any station in Ontario

	Length—3 ft.	3½ ft.	4 ft.	6 ft.	7 ft.	10 ft.	12 ft.	14 ft.
Height..... 3 ft.....	\$2.25	\$2.25	\$2.50	\$3.50	\$4.00	\$5.00	\$5.50	\$6.00
4 ft.....	2.50	2.50	2.75	3.00	3.75	4.25	5.25	5.75
4½ ft.....	2.50	2.75	3.00	3.75	4.25	5.25	5.75	6.25

Any number sent C.O.D. on approval—to be paid for if entirely satisfactory, otherwise to be returned at our expense.

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

Frost Fence, Frost Steel Gates, and Frost Coiled Spring Wire if ILLUSTRATED CATALOGUE UPON REQUEST. AGENTS WANTED.

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.

**Poultry at the Ottawa Fair.**

The Committee Will Provide a Great Show This Year.

Important Amendments in the Regulations.

The Poultry Committee of the Central Canada Fair met Friday. Present were F. H. Gisborne, chairman; W. Hutchison, M.P., John Mason, John J. Gill, C. J. Devlin, W. F. Garland, A. P. Mutchmor, George Higman, James Jacques, S. Shortt, R. McKinstry, J. C. Smith, A. G. Gilbert and P. G. Keyes. Several important changes were decided on.

A code of rules compiled by Mr. A. P. Mutchmor, superintendent of the department at the exhibition last year, was adopted. Previously there were no fixed rules, the management of the department being left largely to the judgment of the superintendent. There will now be uniform regulations. The committee decided to keep all entry-cards until the arrival of the exhibitors as in the past there has been considerable delay caused by exhibitors forgetting to bring their cards with them. Another change which will be welcomed by exhibitors was the decision to provide coops for the ornamental classes. In the prize list several changes were made. A separate class was provided for Buff, Black and White Cochins, also Hamburgs, Gold and Silver, Rose Comb Leghorns, Brown and any other variety.

**FANCY FOWL.**

In the pigeon department Black Turbits were added and black and blue pouters were struck off.

English Owls, Red Magpies, and White Dragoons were added. In the ornamental class Gold and Silver Pheasants, ring-necked and other varieties were added.

A prize of \$10 will be offered for the best incubator and brooder in operation.

E. H. Benjamin was recommended to the executive for appointment as superintendent, and A. Mason as assistant superintendent. Mr. Sharpe Butterfield, of London, was appointed judge.

**The Machines Advertised in "Farming" the Best of Their Kind.**

GORE BAY, MANITOULIN ISLAND, April 7th, 1899,

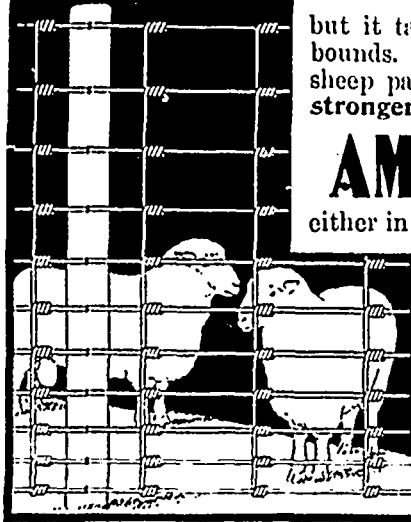
FARMING, Toronto:

Dear Sirs.—In renewing my subscription to FARMING for 1899, I would like to say I have on my farm nearly all the up-to-date machinery found on the best Canadian farms, and every machine I have purchased through advertisements in FARMING, the only agricultural paper I take. I have a 14-foot windmill, a grain grinder, and sawing machine made by Gould, Shapley & Muir, of Brantford, a Climax 3 Pneumatic Ensilage Cutter from the Wilkinson Plough Co., a combined pulper and slicer made by Tolton Bros., of Guelph, and a Larimer Ditching Plow made by R. G. Scott, so you will see that I have given FARMING advertisers the preference in buying my machinery. Every one of these machines has given me the best kind of satisfaction, and I believe they are all the best of their kind. The Larimer Ditching Plow was to some extent an experiment, but it has given me entire satisfaction and has done some very good work for me in low, flat lands. Wishing FARMING every success.

Yours,

EDWIN BAETYE.

**SHEEP MAY BE DUMB**



but it takes a good fence to keep them in bounds. The most successful fence for all sheep pastures as well as for larger and stronger animals is the

**AMERICAN FIELD FENCE**

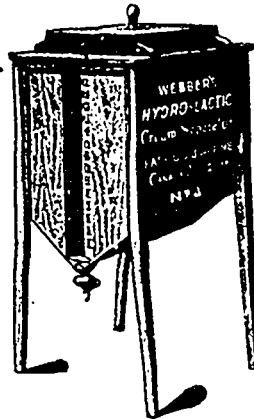
either in regular style or special sheep fence.

This fence is most successful because **IT IS THE BEST AS WELL AS THE CHEAPEST.**

Most durable, efficient and economical. If you can't find it at your local dealer's, write direct to us for catalogue.

**AMERICAN STEEL AND WIRE CO.,**  
CHICAGO AND NEW YORK.

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



**Combines**

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

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

Every farmer with two or more cows should have one.

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

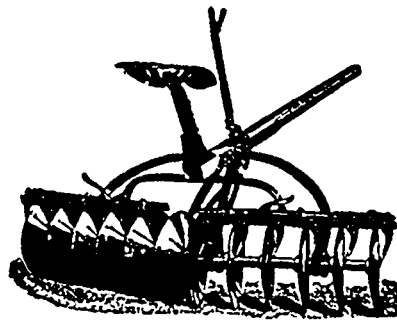
(According to size)

Above Prices not applicable to Manitoba and the N. W. Territories.

Write for descriptive circulars. Agents wanted

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

NIAGARA FALLS, ONT.



NOXON NEW BUFFALO PATENT ALL STEEL DISC HARROW.

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

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

**The No. 12 Cultivator**

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

**THE BEST DRILL MADE.**

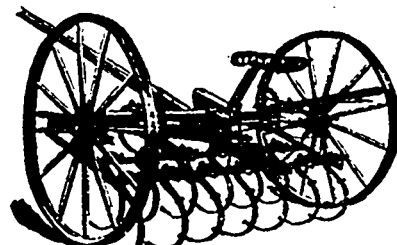
**The Hoosier Needs No Introduction.**

Over 40,000 Drills and Seeders of our manufacture in use in Canada. The only Drill made with lever for instant and perfect regulation of depth of hoe in all kinds of soil, while team 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.

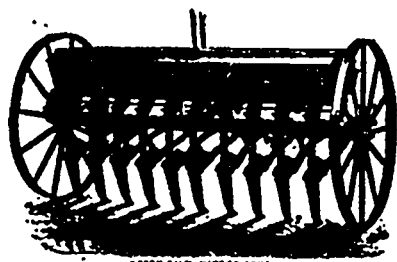
We also manufacture Binders, Reapers, Mower Rakes, Cultivators and Pulpers, as good as the best. Send for illustrated catalogue.

**NOXON BROS. MFG. CO., (Limited)**

Ingersoll, Ont., Canada



NOXON No. 12 SECTIONAL SPRING TOOTH CULTIVATOR



NOXON STEEL HOE & DRILL

Stock Notes

MR. W. H. KIRBY, of Oshawa, is advertising Rose Comb Black Minorcas, Silver-Laced Wyandottes, and White Plymouth Rocks in this issue. A setting of eggs which the writer obtained from Mr. Kirby last year turned out exceedingly well, the birds being of good size and perfectly marked; equal, in fact, to some of the best show birds of the season.

MR. H. STAIRS, of Hillarton, N.S., was a visitor at the Horse Show last week. He is inspecting the various herds of Polled Angus cattle with a view of purchasing a large quantity of stock for his farm in the Annapolis Valley. Mr. Stairs confines his operations to raising apples and purebred Angus cattle, and finds stock-breeding combines very well with fruit-growing.

MESSRS. D. G. HANMER & SONS, of Hill Home and Maplehurst Stock Farms, Mount Vernon, Ont., write, asking us to correct the statement made in our issue of April 11th. Two of the members of the firm are going to England in May, and while there will attend the Royal Show. In our statement it would appear that only one was going. We gladly make the correction.

SALES of stock through FARMING are not confined to any particular locality. Here is a letter from Rhode Island concerning a transaction arising out of an advertisement which appears regularly in our issues: "East Greenwich, R.I., Feb. 15th, 1899. Mr. Wm. Howe, North Bruce, Ont. Dear Sir,—The pig arrived here this afternoon all right, in spite of the cold weather and snow blockade. He is a very nice pig, longer and better than I expected to get, and I thank you very much. Yours truly, GEO. M. MADISON."

MR. ALBERT HAGER, of Plantagenet, Ont., reports that the boom in shorthorn cattle is being felt in the eastern districts of Ontario. He says, "I have sold everything I could spare. Dairymen want Shorthorn bulls to cross on their cows, finding out by experience that there is something in the general purpose cow of which the grade Shorthorn is the best type. My Shropshires are doing well; lambs are strong and plenty of them. Have no less than thirty pairs of twins, all living, out of 48 ewes lambed so far.

MR. EDWIN BATTYE, of Gore Bay, Manitoulin Island, is one of those who has faith in the future of the Shorthorn and is prepared to back his faith by the investment of money. He has already laid a good foundation for a first-class herd, and has recently added a number of very fine animals to it. From Mr. Arthur Johnston, of Greenwood, he has purchased one eight-months-old bull by Royal Sovereign, dam Lady Aberdeen, the latter being, in Mr. Johnston's opinion, one of the most perfect cows in the Dominion; also, the two-year-old cow, Duchess of Gloster 45th, by imp. Grand Sweep—64121—dam, Canadian Duchess of Gloster, 21, by Lord Abbott—51536, a beautiful young cow and beautifully bred; also Jubilee Jilt, by Britism Statesman—63927—dam, Jilt—20327, bred by Mr. S. Campbell, of Aberdeen, Scotland, and a very fine yearling heifer with several prizes to her credit at last year's leading fairs. The price paid to Mr. Johnston for these animals we understand to amount in the aggregate to a very considerable sum. From Mr. W. J. Biggins, of Clinton, Ont., Mr. Batye has secured the five-year-old cow, Matchless of Elmhurst, by imp. Cruickshank bull, Excelsior—5132—and Mina May, a grand cow of the Mina family by imp. General Booth, and in calf to Royal Don, the first prize and silver medal bull at Winnipeg Exhibition last year. At the sale of Mr. John Avery's stock in Stanley Township, Mr. Batye purchased Nellie Booth—23079—and Aggie Booth—23077—two sisters from imp. General Booth; Nellie Booth 3rd, by Roan Chief—2004—dam, Nellie Booth, and also a purebred cow four years old. With them and his many years' experience as a successful farmer, Mr. Batye, will, no doubt, very soon take a leading position amongst the Shorthorn breeders of the Dominion.



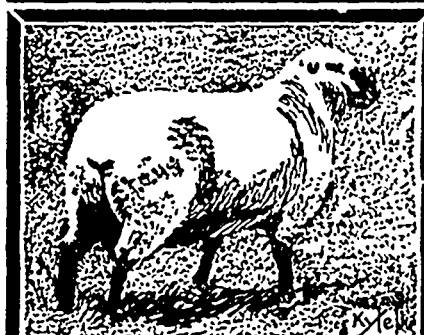
Last season the McCormick Harvesting Machine Company of Chicago built and sold 189,760 machines. This kind of expansion dwarfs every other achievement American history records in favor of the well being of the farmers. Buy McCormick machines and you will get your money's worth.

Improved White Yorkshires

A number of choice boars and sows, not akin, from 8 weeks to 8 months. Sows in pig of the best breeding. Also large English Berkshires of all ages; quality of the best. Address H. J. DAVIS, Woodstock, Ont. Box 200



J. S. 16



Persiatec 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 Bethesda, 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.



Trade Mark

D. G. HANMER & SONS MOUNT VERNON, ONT.

Importers and Breeders of PURE-BRED.....

Shropshire Sheep

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

Address—

D. G. HANMER & SONS 16-5 MOUNT VERNON, ONT.

A New Importation of Clydesdale Stallions

Arrived Oct 31, 1898



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

HACKNEYS

for sale. Address

ALEX. GALBRAITH

JANESVILLE, - - WISCONSIN

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

# The Ontario Agricultural Gazette

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

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

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

### BENEFITS OF MEMBERSHIP.

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

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

A member of the Sheep Breeders' Association 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 2,000 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 saving stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

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

The following list of stock was omitted from the issue of last week:

### THE DOMINION CATTLE BREEDERS' ASSOCIATION.

#### Shorthorns.

Anderson, D. C. .... Rugby	2 bulls, 12 months; cow, 6 years; heifer, 12 months
Bright, J. .... Myrtle	1 bull, 9 months and upwards.
Calder, C. .... Braklin	2 yearling bulls.
Ficht, V. .... Oriol	6 bulls, 12 to 18 months; 10 heifers, 8 to 24 months.
Robson, T. E. .... Hlderton	Heifers and bulls, various ages.
Smith, A. W. .... Maple Lodge	10 young bulls; 10 heifers; young cows.

### THE DOMINION SHEEP BREEDERS' ASSOCIATION.

#### Cotswolds.

Ficht, V. .... Oriol ..... 100 ewes, various ages.

#### Lincolns.

Robson, T. E. .... Hlderton ..... Rams.

#### Leicesters.

Smith, A. W. .... Maple Lodge ..... 30 young rams; 30 ewes.

### Institute Memberships

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

Brant, North.....	36
Bruce, West.....	1
Dundas.....	2
Grey, Centre.....	1
Grey, North.....	37
Hastings, East.....	2
Hastings, North.....	1
Huron, South.....	6
Kent, West.....	16
Lincoln.....	6
Port Carling and Ball.....	6
Norfolk, South.....	1
Renfrew, South.....	9
Simcoe, East.....	20
Union.....	2
Victoria, West.....	6
Waterloo, North.....	10
Waterloo, South.....	26
Wellington, East.....	6

### Prizes to be Offered for Dressed Poultry and Eggs

Prizes to be offered for dressed poultry and eggs at the Provincial Fat Stock and Dairy Show to be held on December 5th, 6th, 7th and 8th, 1899.

Read the rules governing poultry exhibit.

#### CLASS 1.—FOWLS.

Sec.	1st.	2nd.	3rd.	4th.
1. Pair Brahmas of 1899, any variety.....	\$3	\$2	\$1	H.C.

	1st.	2nd.	3rd.	4th.
2. Pair Cochins of 1899, any variety.....	3	2	1	H.C.
3. Pair Langshans of 1899, any variety.....	3	2	1	H.C.
4. Pair Plymouth Rocks of 1899, any variety..	3	2	1	H.C.
5. Pair Wyandottes of 1899, any variety.....	3	2	1	H.C.
6. Pair Minorcas or Andalusians of 1899, any variety.....	3	2	1	H.C.
7. Pair Leghorns of 1899, any variety....	3	2	1	H.C.
8. Pair Dorkings of 1899, any variety.....	3	2	1	H.C.
9. Pair Houdans La Fleche or Creve Coeurs of 1899, any variety..	3	2	1	H.C.
10. Pair Indian Game or *A.O.V. Game of 1899, any variety..	3	2	1	H.C.
11. Pair cross breeds of 1899, any cross....	3	2	1	H.C.

#### Sweepstake.

12. Best pair in class 1... 5

#### CLASS 2.—TURKEYS.

Sec.	1st.	2nd.	3rd.	4th.
1. Pair Turkeys, any age, males.....	\$4	\$3	\$1	H.C.
2. Pair Turkeys, any age, females.....	4	3	1	H.C.
3. Pair Turkeys of 1899, males.....	4	3	1	H.C.
4. Pair Turkeys of 1899, females.....	4	3	1	H.C.

\*Any other variety.

#### Sweepstake.

Sec.	1st.	2nd.	3rd.	4th.
5. Best pair in class 2....	5			

#### CLASS 3.—GEESE.

	1st.	2nd.	3rd.	4th.
1. Pair Geese of 1899, white.....	\$4	3	1	H.C.
2. Pair Geese of 1899, colored.....	4	3	1	H.C.

#### Sweepstake.

Sec.	1st.	2nd.	3rd.	4th.
3. Best pair in class 3....	\$5			

#### CLASS 4.—DUCKS.

Sec.	1st.	2nd.	3rd.	4th.
1. Pair ducks of 1899, white.....	\$4	\$3	\$1	H.C.
2. Pair ducks of 1899, colored.....	4	3	1	H.C.

#### Sweepstake.

3. Best pair in class 4... 5

#### CLASS 5.—COLLECTION OF FOWLS.

1. Six Brahmas, Cochins, or Langshans of 1899..	\$5	\$2	\$1	H.C.
2. Six Plymouth Rocks or Wyandottes of 1899.	5	2	1	H.C.
3. Six Min peas, Andalusians or Leghorns of 1899.....	5	2	1	H.C.
4. Six Dorkings, Houdans La Fleche or Creve Coeurs of 1899....	5	2	1	H.C.
5. Six Games of 1899....	5	2	1	H.C.
6. Six cross-breeds of 1899	5	2	1	H.C.

#### CLASS 6.—COLLECTION OF TURKEYS, GEESE, AND DUCKS.

Sec.	1st.	2nd.	3rd.	4th.
1. Six turkeys of 1899....	\$5	\$3	\$1	H.C.
2. Six geese of 1899....	5	3	1	H.C.
3. Six ducks of 1899....	5	3	1	H.C.

#### CLASS 7.—EGGS. (Double Yolks Barred.)

Sec.	1st.	2nd.	3rd.	4th.
1. Two dozen eggs, heaviest and best, white...\$3	\$2	\$1	H.C.	
2. Two dozen eggs, heaviest and best, brown..	3	2	1	H.C.

#### CLASS 8.—GRAND SPECIALS.

Sec.	1st.	2nd.	3rd.	4th.
1. For best collection of dressed poultry. Prize, a one hundred egg incubator and brooder, manufactured and donated by J. E. Meyer, Kossuth, Ont.				
2. For best collection of dressed poultry exhibited in any one section of classes 1, 2, 3, or 4. Prize, a one hundred egg incubator and brooder, manufactured and donated by John S. Pearce & Co., London, Ont.				
3. For best collection of dressed poultry exhibited in any one section of classes 5 or 6. Prize, a trio of Buff Plymouth Rocks, bred and donated by Robert H. Essex, Toronto, Ont. Value..	\$10	\$0		

#### RULES GOVERNING DRESSED POULTRY DEPARTMENT.

1. All poultry shown must have been bred and fed by exhibitor, and shall be labelled with the name of the variety of the breed to which it belongs. Cross-breeds shall be labelled with the names of the varieties of the breeds used in the cross mating.



Eggs shall be labelled with the name of the variety of the breed by which they were laid, and shall have been laid by fowls owned by the exhibitor.

A declaration from any exhibitor confirming his or her statements may be required by the poultry committee.

2. The following entrance fees will be charged and must accompany each application for entry: For each entry 25c. An entry fee will be charged for each special and sweep-stake.

3. All exhibits must be in the show building and properly placed not later than 1 p.m., December 5th.

4. No exhibit shall be removed until the close of the exhibition.

5. The poultry committee reserves the right to reject any entry.

6. Exhibits must be sent to the show room addressed to the Superintendent of the show, in whose care they will remain during the exhibition. Owner's name and address must be on each package for the return journey.

7. Poultry must be exhibited undrawn, and feathers shall not be plucked from the head, nor from the upper portion of the neck.

8. Prizes for dressed poultry will be awarded on BEST and BEST DRESSED.

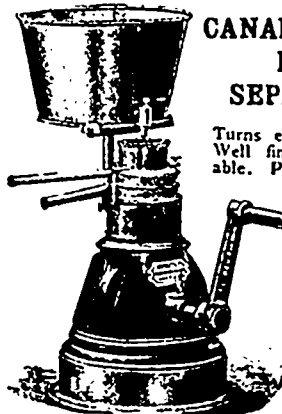
9. In Entry Form use columns marked "Class", "Section", "Description of Animal", and "Amount of Fee".

N.B.—The complete prize-list will be published early in June. Copies may be obtained by application to the Secretary, F. W. Hodson, Parliament Buildings, Toronto, Ont.

### Pumpkins for Hogs.

In a bulletin issued by the Oregon Experiment Station, reciting results reached in feeding pumpkins to hogs, the details are quite interesting. According to the bulletin, six Berkshire pigs were selected for the experiment from two litters on the college farm. The pigs were eight months old when the feeding of pumpkins was begun. They were fed for a week before they were weighed, and were then weighed once every two weeks for a period of eight weeks. The pumpkins were cut up, the seeds removed, and then cooked. When thoroughly cooled, the pumpkins were dumped into a vat and mixed with the day's rations of shorts. The pigs were fed at eight o'clock in the morning and four o'clock in the afternoon. During the period of eight weeks the pigs ate 7,423 pounds of pumpkins and 924 pounds of shorts, and gained 499 pounds. Figuring shorts at \$12 per ton and pumpkins at \$2.50 per ton, the food cost of the gain in weight would be two cents per pound. The average daily gain per pig during the period was one and a-half pounds, which compares favorably with that made from grain rations. The results were quite satisfactory when compared with the previous work in feeding grain rations alone. During the last four weeks the pigs consumed the astonishing quantity of twenty-six pounds of pumpkins each day. The pumpkins were weighed before cooking. It was found necessary to increase the amount of shorts toward the end of the feeding period. The pigs were healthy throughout the experiment, and were not off their feed at any time. Experienced butchers pronounced the meat product of these pigs the best they had ever seen. The bacon was not over fat and was firm in texture.

## Support HOME MANUFACTURE



### CANADIAN-MADE HAND SEPARATORS

Turns easy. Open bowl. Well finished. Most durable. Price reasonable. Best investment farmer can make. Catalogue free. Dairy Supplies of Every Description. Genuine Parchment Paper, for lb. prints, neatly and tastefully printed. By mail, post-paid. Prices reasonable.

No. 9—Canadian Ideal. Cap. 30 gallons per hour.

Write us.

JOHN S. PEARCE & CO., LONDON, Ont.

# Sheep Men



## Miller's Tick Destroyer

### KILLS TICKS

Eggs and all; frees the hide of them; improves the wool: easy to use. A 35c. tin does 20 sheep.

30 YEARS' REPUTATION.

Still made by the old firm of

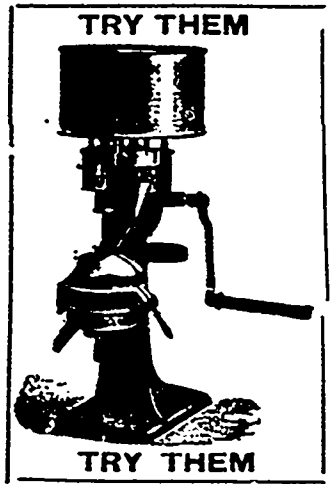
HUGH MILLER & CO., 167 King St. E. TORONTO

## ALEXANDRA AND MÉLOTTE

# CREAM SEPARATORS

For Particulars apply to

R. A. LISTER & CO., Limited  
579-581 St. Paul Street, MONTREAL.



TRY THEM

TRY THEM



### TO THE FARMER

Are you in need of an apparatus to handle your hay, loose grain and sheaves? If so, we can supply you. We have turned out over 30,000 of these machines and they are giving good satisfaction.

J. T. BUCHANAN & CO.,

d-8-13

Ingersoll, Ont.

## DEAL DIRECT

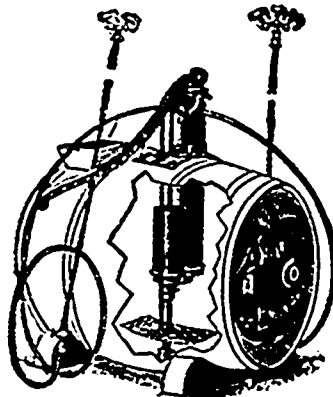
IF YOU CAN USE ANY:

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

E. MORDEN, NIAGARA FALLS SOUTH,

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

## THE SPRAMOTOR FIRST



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

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

Send for full particulars in our copyrighted catalogue on the diseases affecting fruit trees, vegetables etc., and their remedies. Over 100 GOLD MEDALS AND THE HIGHEST AWARDS have been granted the Spramotor in three years.

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

### Certificate of Judges' Award:

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

Agents Wanted.

H. L. HUTT, H. PARTIS, Judges.

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

**MARKET REVIEW AND FORECAST.**

Office of FARMING.  
Confederation Life Building.  
Toronto, April 24th, 1899.

The late spring seems to be interfering with wholesale trade in most lines. As soon as navigation opens up it is expected that business will be given a new impetus. Money seems to be plentiful for all legitimate needs. Call loans are firm at Montreal and discounts are steady.

**Wheat.**

The condition of the winter wheat is still the leading topic in wheat circles. Generally speaking, the reports during the week are favorable for the coming crop. In most places in the west conditions have not changed any, though the weather has been on the whole favorable for growth. The *Price Current* states that the average condition at this time is about 72 per cent. of a full promise, which, if maintained, would imply a yield of 11 bushels per acre on the average, a decrease of 50,000,000 bushels compared with last year. The same paper also states that the grain movement is now generally light and appears likely to continue so at least for a time. The crop damage information has strengthened farmers in the holding sentiment. Reports from some sections in this province during the week show that the fall wheat is doing well, though it may be somewhat early yet to speak definitely.

The speculative element continues to hold forth at Chicago, causing frequent fluctuations in the market. The visible supply in Canada and the United States has increased only 71,000 bushels during the week and the world's total supply only 9,000 bushels. The exports of wheat for the cereal year to date show an increase of only 2,000,000 bushels more than the corresponding period last year, although the last crop was 100,000,000 bushels more than the previous one. This fact, together with the large exports from Australia and Argentina, tend to make it difficult for the bulls to get up any excitement in the wheat market. The British markets, though on the whole somewhat firm, because of light stock, have fluctuated somewhat. There is more activity in Manitoba wheat. The Montreal market has fluctuated during the week but on the whole has gained strength. Sales are reported at country points at 68c. to 70c., with millers the chief buyers.

The market here has ruled steady at from 68c. to 69c. for red and white north and west; 65c. to 66c. for goose, and 80c. for No. 1 hard Manitoba, and 77c. for No. 1 Northern, Toronto. On the farmers' market red and white bring 71½c., spring sife 67c. to 69c., and goose 65½c. per bushel. To-day's reports show a drop of 1 cent at Chicago.

**Oats and Barley.**

London, England, continues to be the principal market for Canadian oats, which seem to please customers. There has been a good demand during the week, and an advance of 3d. per quarter is reported on that market. The Montreal market is firm under a good export demand. Sales of No. 2 white have been made at 36½c. afloat May, with some holders asking 37c. A lot of business is reported west of Toronto at from 31 to 32c. wholesale. The market here is steady at from 31 to 32c. west. On the retail farmers' market here oats are quoted at 38c.

The Montreal barley market is quiet and lower at 49 to 52c. for malting and 44 to 45c. for feeding. It is quoted here at 42 to 45c. west.

**Peas and Corn.**

The English markets for peas keep quiet but firm. Stocks are light but prices are considered too high. The Montreal market is firm at about 74½c. May afloat. Peas are quoted on this market at about 65c. north and west, and on the farmers market bring 62½ to 63½c. per bushel.

No. 2 Chicago mixed corn is quoted at Montreal at 44 to 45c. American is quoted here at 41 to 42c. on track.

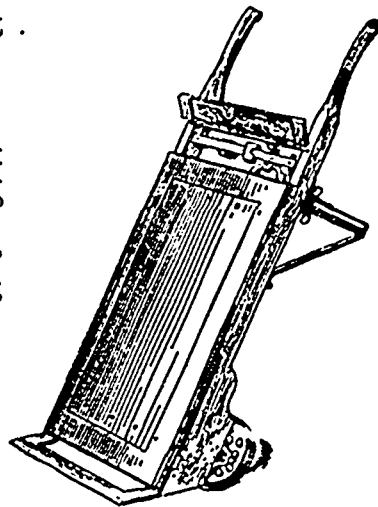
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**Bran and Shorts.**

The Montreal market is strong at \$16.50 to \$17 for Ontario bran and \$18 to \$18.50 for shorts. The late spring and the necessity for feeding stock longer than was expected has something to do with these high prices. City mills here quote bran at \$14.50 and shorts at \$15.50 in car lots f.o.b. Toronto.

**Clover and Timothy Seeds.**

There has been a good enquiry at Montreal for timothy and red clover, and quotations there are \$1.75 to \$2 for Ontario timothy and \$1.25 to \$1.50 for American. Red clover is quoted at \$3.75 to \$4.50; alsike \$3.50 to \$4.50; mammoth \$4.25 to \$4.75, and flax seed \$1.30 to \$1.40 per bushel. There is a fairly good demand here for small lots, but dealers are cautious about their purchases. Alsike deliveries appear to be over, and not much red clover is coming out, growers being inclined to hold for another year, owing to the prospects not being good for the coming crop. Alsike is quoted at \$2 to \$4 and red clover at \$3 to \$3.25 outside points. Dealers here are quoting 40 to 50c. advance on these figures, this extra charge being for cleaning and handling here. Timothy is quoted at about \$1.30 at outside points. Quotations on the local market here are: red clover, \$3 to \$3.50; white clover, \$5 to \$8; alsike \$3 to \$4.20, and timothy \$1.20 to \$1.35 per bushel, white beans bring 80 or 90c. per bushel.

**Eggs and Poultry.**

The London, England, market for eggs is stronger at 6d. per 120 owing to both home and foreign stocks being pretty well cleaned out. There has been about as much uncertainty at Montreal in regard to eggs as wheat, and prices have fluctuated considerably. Prices were as high as 14 to 15c. wholesale, but receded to 13c. with lower values expected. Offerings here are not large owing to bad country roads.

One English dealer reported taking large quantities for pickling; 12 to 14c. are the quotations. On the local market 12 to 14c. are the ruling prices.

The demand for dressed poultry is slow, and the supply is light. Fresh killed turkeys bring 12½ to 16c. per lb., and chickens 60c. to 90c. per pair on the retail market here.

**Potatoes.**

The Montreal market is firm at 70 to 73c. on track, and sales for seeding purposes have been made at country points at these figures. There is an easier feeling here, and quotations are 75c. on track and 90c. out of store. Potatoes bring 80 to 85c. per bag on the Toronto farmers' market.

**Fruit.**

Apples are in limited supply at Montreal, where they bring \$3 to \$5 per barrel. They bring from \$2.50 to \$4 on the local market here.

**Hay and Straw.**

The deliveries of hay at country points have fallen off owing to bad roads and an inclination on the part of farmers to hold. Hay is being shipped from Quebec to some Western Ontario points, where a scarcity of feed is reported owing to the lateness of the spring. Sales of Canadian hay have been made in England at pretty low figures, but still considerable continues to go forward. At Montreal No. 2 baled hay is quoted \$6.50 to \$7, and clover and mixtures at \$4.25 to \$5. The receipts here are small, and the demand is good and the market firmer, but quotations for baled hay are \$7 to \$7.50 for cars on track. On the Toronto farmers' market timothy is quoted at \$9 to \$11.50, clover at \$6.50 to \$8.50, sheaf straw \$6 to \$7, and loose straw \$4 to \$5 per ton.

**Cheese.**

The firm feeling in the cheese market continues, and, although quotations are no higher on the English market, the tendency is upward. The total decrease in shipments from Montreal and New York from May 1st, 1898, to date as against 1897 is 545,016 boxes. A larger number of factories are making fodder cheese, and it is expected that this quality will continue till about May 10th, owing to the lateness of the season. Some factories in the Brockville and Belleville districts are reported to have contracted their April goods at 10c., while factories elsewhere have sold at prices ranging all the way from 9c. to 10c. Old cheese is quoted at 11c. at Montreal.

**Butter.**

Though prices have not advanced any the outlook for creamery butter during the coming season is considered good. A change seems to be coming over the system of dairying carried on in England, and more farmers are sending their milk to the cities and making less butter than formerly, thus lessening the supply of the home make and leaving more room for foreign butter. Though there have been increased supplies from Canada and elsewhere during the past year, at no time has there been the surplus of butter on the English market as was the case other years. Cable reports show light stock, and holders are not inclined to sacrifice their goods, though the market is easier. There is some demand for butter for British Columbia, and there has been more doing for export account at Montreal owing to prices having got down to a level at which business can be done. Sales of of choice fresh creamery have been made at 17 to 17½c., with sales at 16 to 16½c. at some country points. Receipts have been more liberal. The total increase in shipments from Canada and the United States from May 1st, 1898, to date is 50,819 packages as compared with the same time a year ago. The market for dairy butter is dull and easy at Montreal owing to liberal supplies. Fine rolls are quoted at 12½ to 13c.

Creamery is quoted here at about 18c. for prints and packed quality. Receipts for dairy are liberal, and there is a fair demand at 12 to 13c. for large and small rolls. On the Toronto farmers' market pound prints bring from 15 to 18c., and large rolls 13 to 14c. per lb.

#### Cattle.

The cattle situation is somewhat about the same as a week ago. Generally speaking Western markets are easier with the quality offering inferior. Really heavy weights are scarce and wanted in the west. The quality of the fat cattle on Toronto market on Friday was better than usual, several lots of choice shippers being offered. The bulk of the cattle were exporters and these were slow of sale owing to shippers not being able to get space on ocean steamers. Many exporters are reported to have quite a number on hand awaiting shipment, and unless they can get cattle at a figure that will pay to feed are not anxious to buy. The run of butcher's cattle for local use was light and those of medium quality were scarce. Several loads of exports were unsold.

**Exporters.**—Choice heavy ones sold at \$4.80 to \$5, light or medium at \$4.40 to \$3.50 per cwt. Heavy export bulls of good quality bring \$3.85 to \$4.12½, and light ones \$3.40 to \$3.65 per cwt.

**Butchers' Cattle.**—Choice picked lots of these equal in quality to the best exporters, but not so heavy, were easier at \$4.50 to \$4.55. Good butchers' cattle sold for \$4.37½ to \$4.50, and mediums at \$4.12½ to \$4.30 per cwt.

**Stockers and Feeders.**—Buffalo stockers were in good demand, and prices firmer at \$3.30 to \$3.60 for inferior to medium, \$3.75 to \$4 for good, while a few picked lots brought \$4.15 to \$4.25 per cwt. Stock heifers fetch \$3 and stock bulls \$2.50 per cwt. Heavy feeders were active, and well-bred steers weighing 1,000 to 1,100 lbs. sold at \$4.25 to \$4.40 per cwt. Heavy feeders are scarce, and worth \$4 to \$4.25 per cwt. Feeding bulls bring \$3 to \$3.50 per cwt.

**Calves.**—Calves were in light supply at Buffalo on Friday, and prices higher. Prices here ranged from \$3 to \$8 each, with bulk going at \$3.50 to \$5.50.

**Milk Cows and Springers.**—Very few were offered and these of poor quality, selling for \$25 to \$47 each.

#### Sheep and Lambs.

The run of sheep and yearling lambs was light on Friday. Ewes sold at \$3.50 to \$3.75, and bucks at \$3 to \$3.25 per cwt. Yearling lambs were firm at \$5.50 per cwt. for first-class grain fed, with heavy lambs weighing 100 to 110 lbs. fetching 5 to 10c. more per cwt. Common barnyard lambs are worth \$4 to \$4.50 per cwt. Spring lambs fetch from \$2 to \$5 each. Prices were higher at Buffalo for clipped lambs. As a rule the Western markets have been dull and lower during the week.

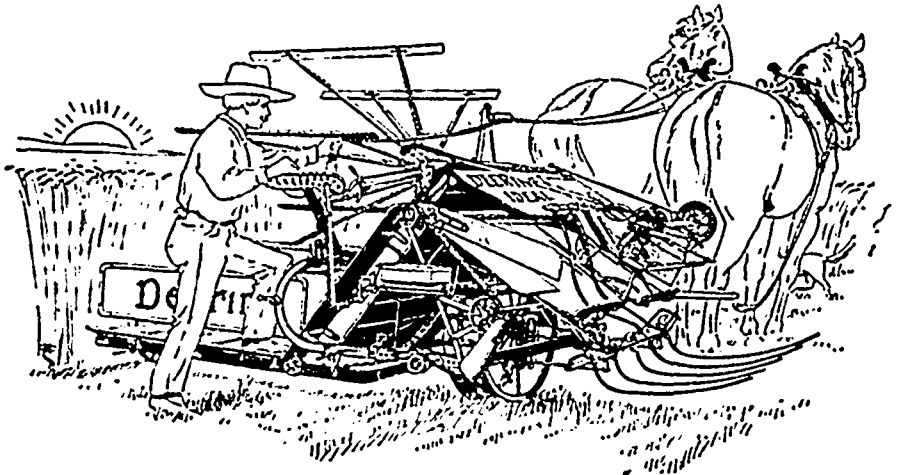
#### Hogs.

Western hog markets have had a strong one with an upward tendency during the week. The prices on Toronto market on Friday for select bacon hogs was \$4.50, for light hogs \$4, and thick fats \$3.87½ per cwt. The Montreal market has ruled steady, the bulk of the offerings selling at \$4.60 per cwt. for light averages. The *Trade Bulletin's* London cable of April 20, re Canadian bacon, reads thus: "The market is quiet but steady, and with reduced stocks holders have been able to get 1s. per cwt. more money for Canadian."

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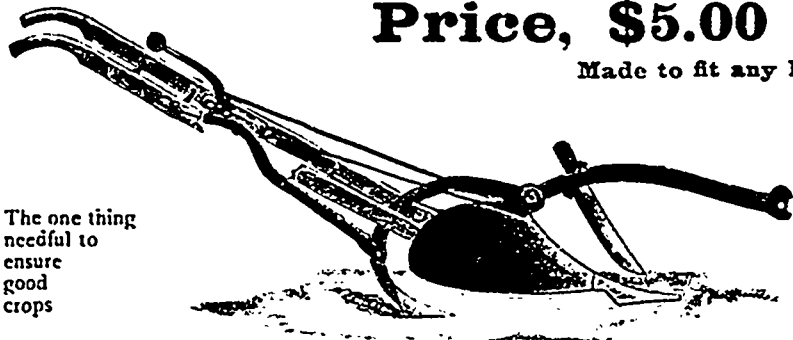
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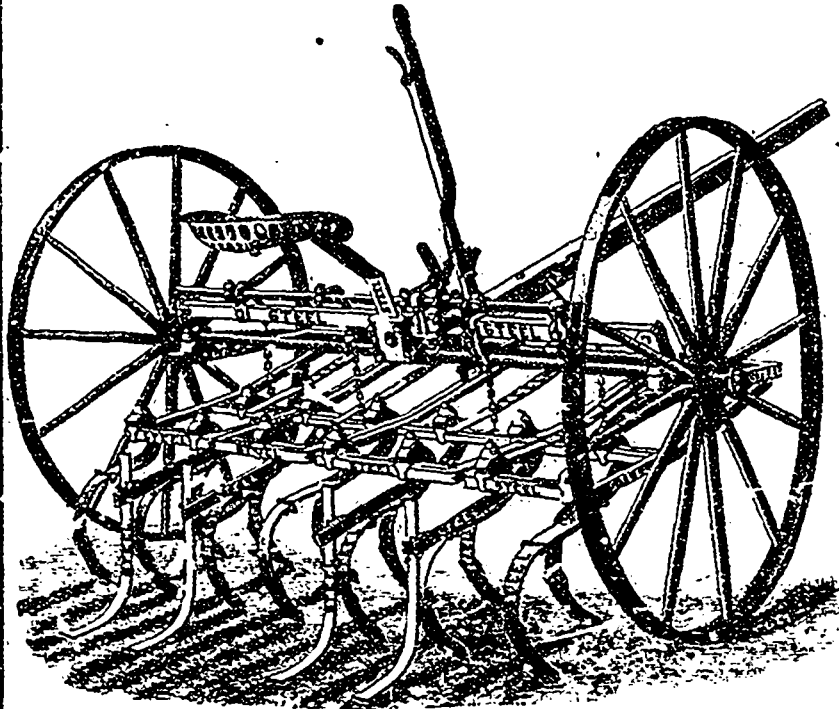
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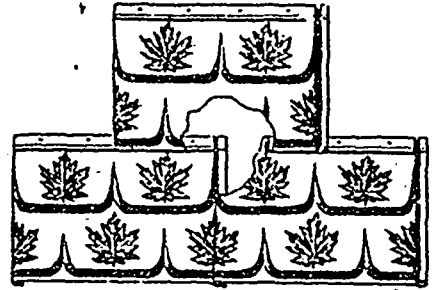
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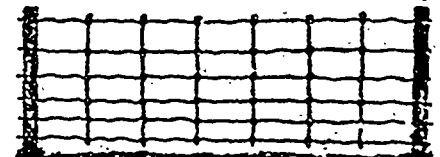
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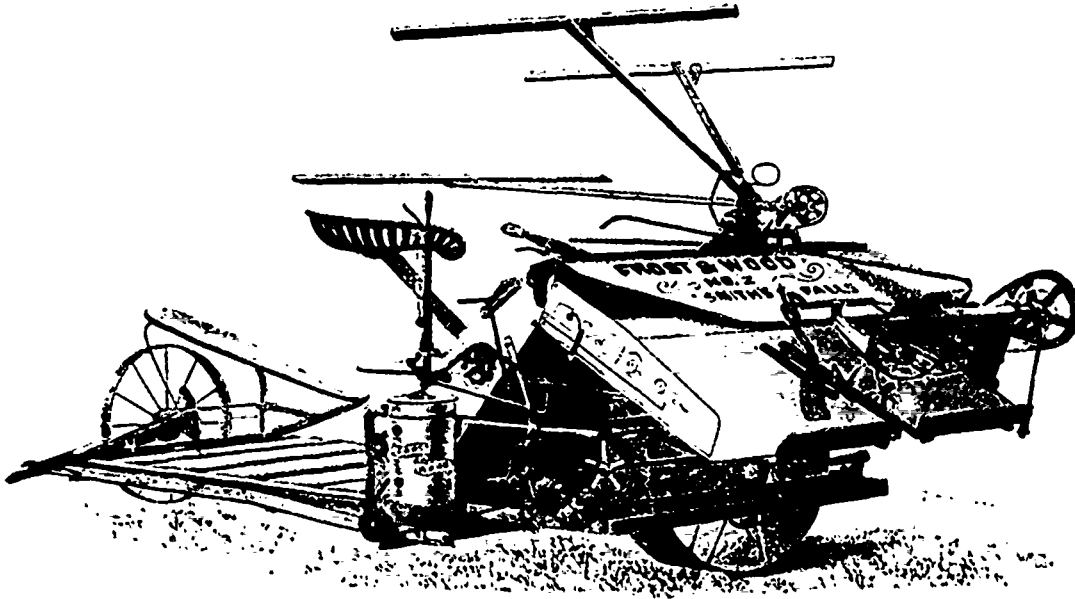
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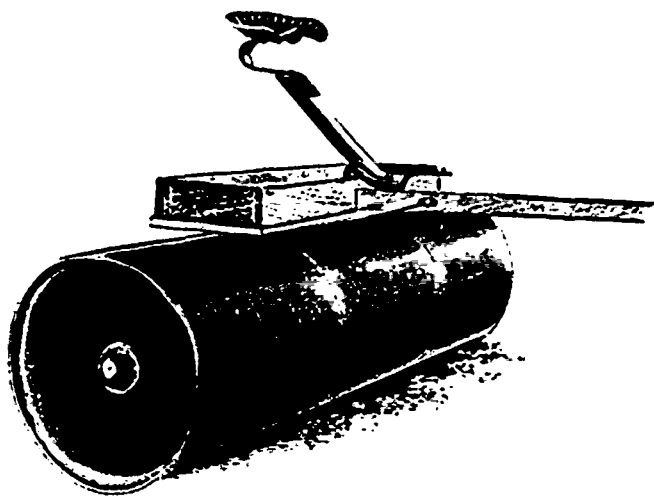
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