

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

Coloured covers/  
Couverture de couleur

Covers damaged/  
Couverture endommagée

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

Cover title missing/  
Le titre de couverture manque

Coloured maps/  
Cartes géographiques en couleur

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

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

Bound with other material/  
Relié avec d'autres documents

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

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

Additional comments:  
Commentaires supplémentaires:

Coloured pages/  
Pages de couleur

Pages damaged/  
Pages endommagées

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

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

Pages detached/  
Pages détachées

Showthrough/  
Transparence

Quality of print varies/  
Qualité inégale de l'impression

Continuous pagination/  
Pagination continue

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

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

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Générique (périodiques) de la livraison

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

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

# Farming

A Paper for  
Farmers and Stockmen

## Ontario Farms for Sale

Township of Grantham, 80 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 Whitechurch—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.

## WEST'S FLUID

is a positive preventive of

## CONTAGIOUS ABORTION AND HOG CHOLERA

and a most effective DISINFECTANT, simply because it is a strong ANTISEPTIC, and destroys the germs upon which such conditions depend, and does not contain corrosive nor irritating properties.

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

THE WEST CHEMICAL CO.,  
TORONTO, ONT.

DEPT. F Agents wanted in all counties,  
Headquarters for LINCOLN SHEEP DIP

## THE FAMOUS WASHER



The Cheapest  
Machine Made.

Is the **Quickest, Cleanest and Best** Washer in the market, and the most suitable machine for the farmer.

A giant for work, and will last a lifetime.  
Circulars and price lists free.

TORONTO NOVELTY WORKS

J. A. GOWANS, Proprietor.  
154 SPADINA AVE., TORONTO, ONT.

Trade  
Mark  
Reg'd



## LUMP JAW NOW CURABLE.

Surely, quickly and for good, Fixing 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.

## FOR SALE

Des Moines Incubator and Brooder  
Bradley's Meat Meal  
Cracked Bone and Bone Meal  
The Ideal Egg Food  
Lightning Lice Killer  
Oyster Shells  
Mica Crystal Grit  
Bone Cutter  
Grinding Mills  
Root Cutter  
Drinking Fountain  
Leg Bands

Send three cents for illustrated catalogue.  
Poultry's Guide, 1-c. per mail.

## ROCROY FARM

24 St. Sulpice St., Montreal



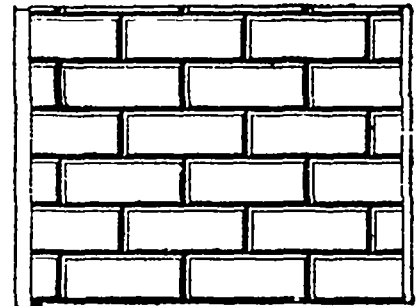
## ROCK SALT

for horses and cattle, 100 lbs., 70c., 500 lbs., \$3.00, Toronto.

Cash with the order. Also in car lots.

Toronto Salt Works, TORONTO

Have You Used  
Our Sheet Steel  
**PRESSED BRICK?**



It is of special value for covering all kinds of farm buildings, because it is so durable, offering perfect protection from dampness and inclement weather—and yet costing very little.

It is fireproof, easy to apply, and gives a stylish effect that you'll appreciate.

—Better write us for full particulars.

Our experience is at your service.

METALLIC ROOFING CO., Limited,  
1192 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

### 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.

### Binder Twine

Agents Wanted. Ontario Binder Twine Co., Union Station Arcade Toronto, Ont.

## THE CO-OPERATIVE FARMER

### SUSSEX N. B.,

reaches the farmers of the Maritime Provinces. Get a sample copy—you'll be sure to like it. Ad. rates on application. Address:

CO-OPERATIVE FARMER,  
Sussex, N. B.

## Bailey's Hydraulic Ram

Runs 24 Hours a day and 365 days a year.

40 Years' Experience **Water Water Water**  
FOR FOR FOR  
House Stock Irrigation



Once started costs one cent per month. As simple as a wheelbarrow and as efficient as a Corliss engine. Information and instruction in plain terms. Prices on Ram or complete outfit by return mail. Address

**PRYCE W. BAILEY**  
Expert, Seneca Falls N. Y.

Ask for  
**Eddy's**

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

**LIGHTNING WELL MACHY**  
IS THE STANDARD  
STEAM PUMPS AIR LIFTS  
GASOLINE ENGINES  
WRITE FOR CIRCULAR  
THE AMERICAN WELL WORKS  
AUGUSTA ME. AGO FALLA TEX

**W. D. FLATT**  
HAMILTON P.O. and TELEGRAPH OFFICE



### OFFERS FOR SALE

7 Improved Scotch Bull  
16 Canadian Bred Bulls.  
21 Two-year-old Imported Scotch Heifers.  
8 Yearling

Also a number of Young Cows, including both Imported and Canadian bred served by Golden Fame (imp). Prices consistent with quality. Correspondence and inspection invited.

## For Republic

## Specialties

Communicate with

## E. Gartly Parker

Member of the Standard Mining Exchange

12 Adelaide Street East, - TORONTO

'Phone 1842

Note the future progress of the great Republic Mining Camp, which is destined to astonish the world by its yearly output, and keep in touch with me.—E.G.P.

# Agricultural College

The Ontario Agricultural College will reopen on September 26, 1899

Full courses of Lectures, with practical instruction in Agriculture, Live Stock, Dairying, Poultry, Beekeeping, Horticulture, Veterinary Science, Chemistry, Geology, Botany, Entomology, Bacteriology, English, Mathematics, Bookkeeping, and Political Economy.

Year shortened to suit farmers' sons.

Send for circular, giving terms of admission, course of study, etc.

**JAMES MILLS, M.A., President,**  
QUELPH, ONTARIO

## Dentonia Park Farm

EAST TORONTO  
(Coleman P. O.)

W. E. H. Massey, Proprietor

Address DENTONIA PARK FARM, Coleman, Ont., Canada

### Dentonia Jersey Herd

Two handsome young bulls for sale, fit for service; one out of imported stock and one a splendid type of the St. Lambert family. Prices and particulars on application.

### Dentonia Poultry Yards

Poultry department in charge of Frank R. Webber, formerly of Guelph. Handsome Pens of White and Brown S.C. Leghorns, Barred P. Rocks, Black Javas, White Langshans, Pekin Ducks. Eggs in season, 15 for \$2, or 50 for \$2.50. Stock for sale. Also Embden Geese or Turkeys.

### Dentonia Trout Ponds

This year's fry in fine healthy condition ready for delivery, also yearlings. Market Trout supplied to the trade.

# 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 Southern Districts, on the line of the Qu'Appelle, Long Lake and Saskatchewan Railway.

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

**OSLER, HAMMOND & NANTON,**

Land Office, 381 Main St., WINNIPEG.

# FARMING

VOL. XVI.

AUGUST 15th, 1899.

No. 50

## "Farming" at the Fair

"FARMING" will be found at the old stand at the Toronto Industrial Fair this year. Kindly bear in mind that our tent is located near the cattle rings, and in close proximity to the cattle and horse stables, in the northern portion of the grounds, immediately opposite the Farmers' Institute tent. We invite all our old friends, as well as every breeder and visiting agriculturist at the Fair to call and see us there. A representative of "FARMING" will be on hand at the tent during the Fair to give information regarding subscriptions, advertising, etc. Pens, ink and paper will be at the disposal of stockmen and others who call to use them, and we shall take it as a favor if all our friends will avail themselves of all the privileges of the tent at any time during the exhibition.

Our exhibition number this year will be ahead of anything we have ever published, which is saying a good deal. When at the Fair do not fail to call at the tent and secure a copy to send to a friend or neighbor who is not already a subscriber.

## Canadian Cheese Improving in Quality

There was some little excitement among dairymen last winter when the statement was made at the dairy conventions by the Dominion Minister of Agriculture and the Dairy Commissioner that the Canadian cheese trade was not in a very healthy state, owing largely to the British consumer becoming more fastidious about his food, necessitating an improvement in quality if we wish to hold the place we now have in the English market. While some were fearful as to the consequences likely to follow the making of such a statement, yet this season's operations so far show that they were not at all detrimental, but, on the contrary, induced a wholesome desire on the part of those engaged in the business to remedy matters, and to bring about that improvement in quality suited to the needs of the trade. The British consumer desires a little meatier and milder flavored cheese than we have been in the habit of sending him. To secure this the curing-room of every cheese factory must be put in such a condition that the temperature can be under the complete control of the maker.

These statements in regard to the quality of our cheese and the subsequent discussion of them, largely in these columns, have had the effect of creating a distinctly forward movement in the way of improved facilities for ventilating and controlling the temperature in curing-rooms, and it is to be hoped that it will continue till every cheese factory has a curing-room properly fitted up for this purpose. No cheese factory need expect to stay in the business very long unless active measures are taken along this line. It is a matter of impossibility for a maker to make meaty, cool-flavored cheese such as the British market demands unless he has a curing-room in which the temperature can be kept at least below 70° during our hot season, and the sooner factory owners and patrons realize this and take action the better for the trade and all concerned.

In last week's issue and in this week's also appear several letters from cheese-makers, cheese manufacturers and the

instructors employed by the dairy associations, giving some practical information on this subject. All of our correspondents state that in their respective districts there is a noticeable improvement in the quality of the cheese made this season, as compared with that of last year for the same period. This improvement, it is also stated, is largely due to the cooler weather we have had and the better conditions in the way of ice-boxes, sub-earth ducts, etc., in many factories for ventilating and cooling the curing-rooms. There are yet numbers of factories, as these letters show, where those in charge of them are seemingly unconcerned in regard to this question. But there are evident signs that the movement is growing and that this season will witness a vast improvement in the general facilities at hand for curing cheese.

Prof. Robertson, Agricultural and Dairy Commissioner, who has just returned from Great Britain, bears out the statements made by our correspondents. In a recent interview he states that Canadian cheese is suiting the English trade better this season than last. All that is wanted now is to keep up the evenness of quality and get a milder cool flavor by curing it at a temperature of 60 or 65 degrees. These facts should be taken note of by our dairymen and an effort made to meet the requirements of the trade. As this whole question of curing cheese is of vital importance just now, we would like to have the views and experience of others in the business for publication.

## Ontario Crop Reports

The Ontario Bureau of Industries has issued another crop report compiled from statements received from correspondents under date of August 1st. The fall wheat crop is poor. The quality varies all the way from plump and hard to small and shrunken in the same localities and sometimes in the same fields. The crop was harvested in good condition. Spring wheat, which is more largely grown in the eastern part of the province, is on the whole a good crop and the yield likely to go above the average.

The barley crop this year is reported to be highly successful in the main. This crop is now grown more largely for feeding purposes, and the acreage has been largely increased this season. The oat crop is reported to be rather backward in many parts, but the reports as a rule are satisfactory and the yield promises to be a large one. Late sown oats appear to have flourished better than the early crop where they have had a fair supply of moisture. The reports regarding the pea crop are somewhat variable but indicate an average yield.

The production of hay and clover will be somewhat below the average, the principal cause of the shortage being the heavy frosts of last winter. The quality is good, the crop having been got in in excellent condition. Some correspondents anticipate a scarcity of clover seed. Though cold and wet weather at planting delayed the corn crop, still the reports indicate a promising crop in most counties. Quite a number of new silos are in course of erection.

Potatoes promise a good yield, though in many sections rain is badly needed. There is reported to be a decreased number of bugs owing to the severe frosts of last winter. On the whole mangels, carrots and beets promise well. The reports are not so encouraging regarding turnips.

Some damage from the effects of grasshoppers, turnip fly and other insect pests is noted.

There is likely to be a scarcity of fruit this season, owing to various causes. The apple crop is light, but as a rule the quality is very good and the fruit fairly free from scab. Winter varieties promise better than early ones. Plums promise better than apples. They will be abundant in some places. The peach crop is reported to be practically a failure. Pear trees have not been so prolific as usual and the supply will be light. An abundant supply of grapes is looked for. Reports regarding honey vary very much. The average output will be about 25 lbs. per hive.

Reports regarding pastures vary greatly. In the Lake Erie and Lake Ontario counties pastures are generally dried up and bare, resulting in a considerable falling off in the supply of milk, with discouraging prospects for the keep of cattle during the fall and winter. In the northern and eastern portions of the province, where more rain has fallen, the pasturage has remained good with abundant supplies of milk for dairying purposes and prospects of a plentiful supply of feed for stock. Live stock as a rule are in good condition, with a marked absence of anything like serious disease.

The demand for farm labor is said to be decreasing, owing to the now frequent practice of doing all the ordinary farm work without other assistance than that furnished by the family, or the exchange of work among neighbors. This renders the supply of farm help in most localities fully adequate except during harvest. Great difficulty has been experienced in securing sufficient help during harvest. In many localities \$1 to \$1.25 per day with board seem to be about the standard or average wages for harvest hands, while for monthly engagements, with board, wages range from \$15 to \$20 per month.

## Where Manure Will do Most Good

In some plants the farmer wants a large root, large stem and large leaf; and in others he wants only the seeds,—the other parts being an unimportant and secondary consideration. An abundance of plant food, an excess of it if you will, early in the life of the plant, makes for the growth of roots and stems and leaves; and then after the plant is about full size, some difficulty in getting more of it, makes for the growth of seeds. If a man wants large turnips let him pile on the manure. You never saw too much manure on a turnip field, for the size of the turnips. That is quite unlike the bunch of oats on the dung-hill. Then you never saw a hay field over-manured, so far as the growth was concerned. In the hay you want the stem and leaf; and in the turnip and mangel and carrot you want the root; therefore, manuring is the right thing for them. Besides their period of growth and accumulations extends many weeks after the period of collection by ripening cereals has ended; and that at a time when the farmyard manure applied that season is most readily available; and when nitrification in the soil is most active.

There is a fundamental principle to guide in making a rotation of crops,—apply manure only for green crops and hay; and follow these by cereals sown in soil having a very fine tilth, since for them there is only a short growing season. That the first part of it should be favorable is most important for the yield of grain.

Application of farmyard manure directly for grain crop is almost always a wasteful practice, but put on for root or other green crops it puts and leaves the soil in the best condition for grain crops to follow. I do not contend for sowing grain on poor land, but for putting manure on for green crops and for grass and for hay, which take all the nourishment they require; and leave enough, and that in the best condition, for the growth of the succeeding crop of grain.—*Prof. Robertson before Agricultural Committee, House of Commons.*

## Building and Ventilating Cow Stables

At the last meeting of the Wisconsin Dairymen's Association Prof. King, of the Wisconsin Experiment station, gave a very interesting address on building, re-modeling, and ventilating dairy barns, from which we take the following, the illustrations being reproduced from *Hoard's Dairyman*:

"Next to a warm temperature in the stable, stands the demands for plenty of fresh air, supplied only by a good system of ventilation. A steam engine cannot be run without an ample supply of oxygen, neither can a cow do her best without plenty of fresh air. A man after he is through digesting his food and is at rest uses about 1,627 cubic inches of oxygen per hour, but 57 per cent. more of oxygen is required to simply do the work of digestion in the case of the man when he remains at rest.

Now what we are doing with the cow is to require her to digest just as much food as she can and convert it into milk. It is plain, therefore, that one of the chief requisites for this is plenty of fresh air.

On an average, a 1,000 pound cow will take something like 30 pounds of dry feed per day, and she will drink about 72 pounds of water. In other words, you feed her in the neighborhood of 100 pounds a day, but the amount of air that the cow must use in order to utilize the 30 pounds of feed and the 72 pounds of water is somewhere in the neighborhood of 192 pounds, or nearly double the amount of food and water combined. I wish to emphasize the importance of this matter of the abundance of fresh air, and in order that you may realize its great need more fully I shall perform a few experiments with this lighted taper and glass jar. (Prof. King here made several experiments, showing that a supply of oxygen was necessary to support the flame of the candle in the jar, and how easily and quickly it would be extinguished by pouring over it the air once breathed.)

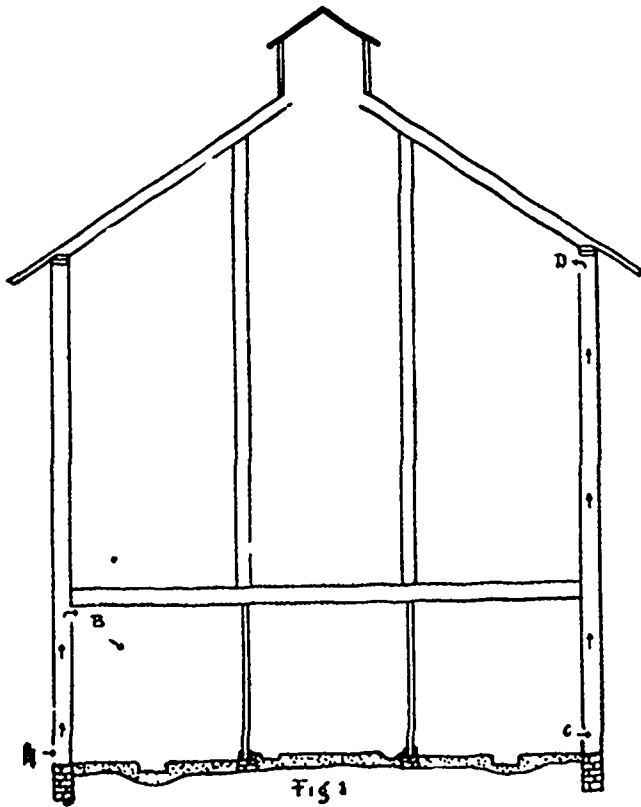
Now to apply this principle here illustrated: The cows are standing on the floor of stable, the nostrils of the cow are so arranged that in her breathing the air thrown out of the lungs accumulates at the floor. From where, then, should the air be removed? From the ceiling? No. For there is where the air is best. Not only is the purest air at the ceiling, but that which is warmest also, for the bodies of the cows act as so many stoves in warming the lower air of the stable, causing it to rise and accumulate at the ceiling, and the heat given off by their bodies is sufficient to amply warm the stable, if it is rightly constructed and properly ventilated. If you introduce pure air from above, you bring the cold air in contact with that which has already been warmed, thus utilizing what would otherwise be waste heat, to warm the air before it comes in contact with the bodies of the cows. If the air is brought in in a large number of places around the sides of the stable, the tendency to produce a cold draught is reduced to a minimum, and the greatest heating effect is secured. Then if the bad air is removed from near the floor, the coldest air will also be removed at the same time, and the greatest advantage is derived from the heat liberated by the bodies of the cows, and they are kept better supplied with the purest air already made warm by the waste heat from their bodies.

The method of introducing the cold air at the ceiling and preventing the warm air from going out is represented on these two charts. Fig. 1 represents a frame barn built in the manner followed in ordinary house construction, where studding are used set three feet apart and the siding put on horizontally instead of up and down, as is commonly practiced in barn building. In the construction of small barns, this is much the more economical method of framing, as smaller timbers can be used and the siding does away with the necessity of braces, thus giving a much stronger structure with less lumber. Where this method of construction is followed the air may be allowed to enter the stable by passing in between the sheet-

ing inside and the siding outside, as represented at A, just above the sill of the barn. It then rises between the studding and enters the stable as indicated by the arrow at B, thus bringing the cold air in at the top of the stable. Openings of this sort would be provided on all sides of stable, if possible, at intervals of ten or twelve feet, and they may be about three inches by twelve inches at top and bottom, and, if desirable, can be provided with sliding or hinged valves near the ceiling to be shut if too much air is coming in, though this will not usually be necessary. To take the air out of the stable, the method represented in the right side of the drawing at C. and D. may be adopted. The method is simply to close up the space between two or more sets of studding from the floor of the stable to the plate in the storey above, thus forming a continuous flue or series of flues through which the air may rise and escape. The air may be allowed to pass out under the roof and escape through the cupola, or a ventilating flue could be carried directly up through the roof so as to form a nearly continuous straight flue for the escape of the air rising above the ridge of the roof. This would give a stronger draught, but in small stables of less than twenty cows it would not usually be necessary to carry it out through the roof.

In Fig. 2 is represented a method of taking air into a stone basement where at A B a flue is built in the stone wall when it is put up by using six inch drain tile or a wooden form set in the wall, allowing the air to enter at A on the outside and pass into the stable under the joists at B on the inside. In case the earth rises to the level of the ceiling on the outside, then the method represented on the right side of the drawing may be used. In this case the flue is built in the wall in the same way as on the other side, but the end underground opens into a vertical shaft at C which is made of sewer tile, or a wooden column if a cheaper arrangement is desired. This duct rises just above the surface of the ground outside, and should be covered with a piece of wire netting to keep out leaves and litter.

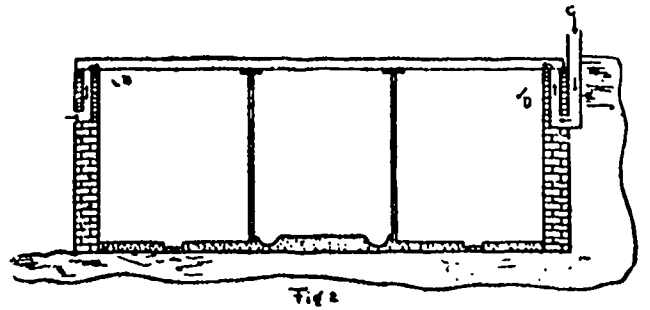
The air should be taken out of the stable within eight or



ten inches of the level of the stable floor, as represented in Fig. 1.

In order to supply twenty cows with the amount of air they need and still keep the temperature right, there should be provided a ventilator two feet square on the inside and this should be able to carry air at the rate of three miles

per hour to supply the needs of the twenty cows; forty cows would require two such ventilating flues, or a single one having double that capacity. In a well built stable, which gives ample working room, it is easy to maintain a temperature of 40° to 60° in the coldest weather with such ventilation as described.



In regard to the height of the cow stable, it should be said that this should be no greater than is really required for the comfort and ease in doing the work. You may make the room as large as you choose and as high as you choose, and if there is no provision for the air to come in or go out, it is not a suitable stable. It is not cubic feet of space which is needed, but cubic feet of fresh air, and so the stable may be made as low as practicable for the needs of workmen, and from eight to nine feet in the clear is a great plenty for the ordinary farm stable. If you carry it up higher, you increase the amount of surface exposed, and the amount of space which the cows are obliged to keep warm; you increase the tendency of the warm air to escape above the cows, and so in every way make it more difficult to keep the stable warm."

## Marketing Poultry

To raise good poultry is one thing and to market it successfully is another. Very often the whole profit in the business may be lost because of improper and slovenly methods of preparing the birds for market. P. H. Jacobs, the veteran American poultry man, gives some sound advice along this line in a recent article from which we take the following:

"Farmers and poultry men lost a large share of their profits by lack of judgment in marketing. One of the causes of discontent is what the commission merchant reports as 'shrinkage,' which is that if one ships 100 pounds of live poultry to market the weight will shrink to 95 (or less) by the time the coop reaches its destination. If the coop contains chicks a loss of 4 or 5 per cent. as shrinkage, when prices are high, amounts to \$2 or \$3, and it has caused many bones of contention to exist between the consignor and consignee. It is best to ship all fowls and chicks dressed, if it can be done, as the picking seldom costs more than the average shrinkage of live birds, which fall off in weight, owing to lack of food and water, though it may be partially avoided by shipping the fowls so as to have them arrive in the best condition. Over-crowding in the shipping coops causes more loss than anything else and even when the shipper is very careful he is compelled to rely upon the honesty of the merchant.

"Never ship so as to have the birds arrive in market on Saturdays, in order to prevent them from being on hand during Sundays. As the birds sent to market should be dry picked, if killed, and not scalded, it entails quite an item of labor and expense to prepare the carcasses so as to have them free of pin-feathers and make an attractive display. Unless practice enables the operator to perform the work quickly, the disgust of such jobs will remain. But it pays to dress the fowls, for when the price of live fowls is 20 cents per pound the dressed fowls usually bring about 25 cents, or 5 cents per pound more. This is a small difference, but when a fowl weighs three or four pounds it adds 15 or 20 cents to the price. Expert pickers will dress a fowl for 5 cents, but, admitting that it may cost 10 cents

per fowl, it leaves a profit. Looking at it in another light, we may add that the item of picking becomes a large one, if there are a great many fowls, and it may be saved where there are a number of persons in the family.

#### SELECTING THE BEST HENS

"There are always a few good hens in every flock, and when it is noticed that a particular hen during the season seems to excel the others in laying, do not sell her because she is moulting or has stopped work for a while, but keep her for another year. You may not be able to breed as good pullets from her as she is herself, because something depends on the kind of rooster she may be mated with, but, leaving the value of her offspring out altogether, it is always safe to retain a hen that has shown herself profitable. Hens often last four or five years, and it is time to dispose of the good hen only when she begins to fail.

#### INJURIES FROM ROOSTS

"When the roosts are high the fowls will crowd together, each endeavoring to get as high as possible, instinct prompting them to do so in order to avoid danger. If they have a long sweep to fly down they are seldom injured, but where they are compelled to jump down almost under the roost the result is a bruise, which becomes hard and callous, being known as bumblefoot. It is not easily cured, but frequent application of crude petroleum is the best remedy, though sometimes the knife must be used. A fowl that has once had bumblefoot is worth very little afterward, as it will become lame again at times. Make the roosts low, and all on the same level, which is the surest preventive.

#### THE DROPPINGS IN SPRING

"When spring opens it is not advisable to keep the droppings separate from other manures, as the warm weather is not favorable, but mix them with the barnyard manure. Winter is the time to save the droppings, as then they will be more valuable, coming from matured stock. The manure from growing animals or birds is not as valuable as that from those which are matured, and as labor must be bestowed on the proper preservation of droppings now they can be made more serviceable in the general heap or by immediate use."

## Points of the Sheep

Old, broken-mouthed or, we may add, ruptured ewes, must go, and a faulty udder is, in most cases, an unparadonable defect. It is less easy to still further cull the flock of its less desirable members. Great judgment is required in culling out the weak members, but the opportunity must be taken, and no doubt rigorous weeding is one of the secrets of improving a flock.

A weak, bare, or badly-colored head, speckled ears, when a uniform color is in type, pink or badly-colored lips and nostrils, and spots where no spots should be, a rusty, sour, ugly head in any breed should be got rid of. It is no great matter if we cull beyond our usual limit, as there are plenty of opportunities in early autumn to replace by buying a few good ewes.

Nothing looks better than good heads, and strange as it may seem, a sheep's head, which is only worth 9d. at the butcher's, is worth a lot of money when carried on a good ram or ewe.

Next to the head and ears we look for good necks. Ewe-necked sheep never look well, and a good scrag is a strong point. Let us therefore, as far as possible, weed out long or hollow-necked ewes. A muscular neck indicates strength of constitution, and good muscular development, and I have never known a sheep-breeder who did not strongly object to a shabby neck. Mr. Ellinar, the father of the Southdown breed, insisted on the importance of this point. Mr. James Rawlence, of Bulbridge, one of

the oldest of our noted breeders, would not keep a weak-necked ewe, and no man who values his flock would buy a ram with this fault. The neck ought to be muscular, arched, tapering and neat.

Shoulders are as important as neck, and should be considered as follows: First, they must blend with the neck. They must be well laid back so as to produce thick "crops" and a great girth. Secondly, they must be wide over the tops. Thirdly, they must be wide through the heart from blade to blade. Nothing can be more effective than a good fore-end. If you try to think of it, imagine the sheep to be grazing with her head towards you, and you will then notice the grand effect of good shoulders. Deep floor to the chest and a prominent breast, coming well forward between the fore-legs, complete this part of our picture.

Next let us look at the ribs and back, the loins, the quarters, the let-down of the legs of mutton, and lastly, at the general ampleress of form. There is no mistaking a good sheep, and when looking through a flock for drafting, every mean, undersized, bad charactered or defective ewe must go.

A good flock cannot be got up in a year, but each year tells. It is the object to take off the tail and put on a new and improved head to the flock every year, and thus to build up the ideal which every good breeder carries in his mind's eye. This is drafting or weeding, and no successful breeding can go on without it.—*London Live Stock Journal*.

## CORRESPONDENCE

### Sows his Own Seed if Clean

To the Editor of FARMING:

Yours of 22nd July just received. As I have changed my place of residence, being now a resident of the Tp. of East Oxford, Co. of Oxford, instead of the Co. of Kent as formerly, hence the delay in receiving your letter.

(1) I consider a clover sod turned down in July and well worked in the surface the best preparation of land for fall wheat.

(2) No. (3) September 1st to 10th.

(4) Red Lawson. (5) I sow my own seed if it is good and clean and the variety suits me. I think it better "to have the devil you know than the devil you don't know."

(6) Fifteen bushels per acre.

Trusting this will not reach you too late to be of service to you.

JNO. CLARKSON.

Woodstock, Ont., Aug. 2nd, 1899.

### Shipping Cheese Too Green

To the Editor of FARMING:

In reply to yours of July 26th I would say that:

(1) I have had no experience in the use of formalin for the prevention of mould on cheese. In factories in my section where they have been troubled with the mould the trouble has been overcome by applying two coats of white-wash to the walls and ceiling of the curing-room, and having good ventilation.

(2) Quite a few of the factories have put in ice-racks, and where they have been put in they have been beneficial in lowering the temperature of the curing-room, and making the condition of curing more favorable. I find factory-men very slow to adopt any method of improvement where there is any expense to be incurred.

(3) I have visited no factories this year where they have put in sub-earth ducts.

(4) In my opinion I think the cheese in this section compares very favorably with last year's make.

I find there are fewer poor cheese made. One mistake I find that factory-men are making is that of shipping their

cheese too green. I think it would be better to have better curing-rooms and hold the cheese longer in the factories.

G. G. PUBLLOW,  
Cheese Instructor for Cheese and Butter Association of  
Eastern Ontario.  
Perth, Ont., Aug. 1st, 1899.

## Good Results from Sub-Earth Duct

To the Editor of FARMING:

Yours of July 26th has been received and contents noted. I have not had any experience with formalin, and do not know of a factory that is using it. I know of three factories, however, that have sub earth ducts in the curing-rooms. These are Lyons, Dunboyne and Tupperville. The one at Lyons is working very well. The temperature has never been above 69 degrees, which, I think, is very good, considering the condition of the curing room. This duct is 150 feet long, made of two rows of 10 inch tile, laid one above the other. The top of the upper tile is six feet below the ground. The intake pipe is 50 feet high. The other two ducts are small and I am a little doubtful as to their value. But I will find out more about them and let you know.

There are a number of factories putting in boxes and using ice with good results. Regarding mould on cheese, my opinion is that if the majority of curing-rooms had better ventilation and had the windows frosted so as to let in more light, there would not be nearly so much mould. I think also that the flavor of the cheese would be a great deal better. We must have light in order to live and so must a cheese.

C. O. LUTON,  
Instructor Cheese and Butter Association of Western  
Ontario.  
Belmont, Ont., Aug. 3rd, 1899.

## Conditions Affecting the Working of Sub-Earth Ducts

To the Editor of FARMING:

In reply to your enquiries: 1. "The use of formalin in preventing mould on cheese"; 2. "Whether there has been an improvement in the methods adopted for curing cheese"; 3. "Sub-earth ducts in curing-rooms"; 4. "Ice in curing-rooms"; 5. "Quality of cheese this season as compared with last season," I would say:

1. There has been no formalin used this season in any of the factories in my district. Many makers tried it last year with poor results. In every case the quantity used was less than that used by Mr. Barr, as reported in his letter, nor was the cheese sprayed as frequently. Speaking generally, there has been an absence of mould in the curing-rooms this season, but this has been owing to the dry weather and to the fact that the rooms have not been heated owing to the fine, cool nights.

2 and 3. In four factories in this district—namely, Woodburn, Caistorville, Canboro' and Caledonia—sub-earth ducts have been connected with the curing-rooms with the very best results. A good curing-room, if not too large, and with a duct properly constructed, and a slight breeze to force the air through the duct, will not exceed a temperature of 65 to 68 degrees even in the warmest weather. There are still some difficulties to overcome, the chief of which is to get good circulation in calm weather. Mr. Paget, of Canboro', a director of the Western Ontario Cheese and Butter Association, is to open a discussion at the next cheese market at Brantford on the 11th inst. on

the question of sub-earth ducts, when he will give the results and particulars regarding the one in his factory. The report of this discussion will doubtless be sent to you.

4. Many of the factories are using ice in the curing-rooms this season, the best results being obtained by using a box made on the plan given by Mr. A. T. Bell, of Tavistock, at the last Guelph convention.

5. In my opinion, the quality of cheese this season in this district is better than that of 1898. The temperature of the curing-rooms has been favorable to makers.

JAS. MORRISON,  
Instructor at Cheese Factories for Cheese and Butter Association of Western Ontario.  
Brantford, Ont., Aug. 4, 1899.

## Selecting One's Own Seed the Best Plan

To the Editor of FARMING:

In reply to your enquiries re fall wheat I beg to state that I have not sown any fall wheat for the past two years, as we are principally engaged in dairying and hog raising at present, but I will give you an outline of the method I prefer in the growing of this crop.

1st. The bare fallow is a thing of the past in this section. For the last fifteen or twenty years a large acreage has been devoted to the growing of Alsike clover for seed. After the clover is cut the sod is plowed as shallow as possible, in July, then given a stroke with the harrows and rolled down so as to retain the moisture; in a short time all of the sod will have rotted. If Canada thistles or other weeds spring up the land is plowed shallow with the gang plow or worked over with the broad share cultivator so as to cut all the weeds, harrow well so as to pulverize the soil and bring all the cut weeds to the surface so that the sun may destroy them. If there are bare spots in the field that require fertilizing, take any manure that has been left from the root crops in the spring or that may have accumulated during the summer, and spread this lightly over these places. Set out the ridges with a single plow, then plough shallow with a gang plow, or if the manure is short and well rotted the plowing may be omitted and the work done by the broad share cultivator. If a clover sod is not to be had, pea stubble may be treated in the same way.

2nd. I have not used any commercial fertilizers except salt, sown on the land in the spring at the rate of 150 to 200 bushels per acre, which has given excellent results. The crop ripens about a week earlier, the straw stiffer, the grain plumper and heavier, and the crop less liable to be affected by rust than where no salt has been sown.

3rd. From the first to the sixth of September.

4th. Dawson's Golden Chaff.

5th. I prefer sowing seed of all kinds grown by myself as I have found the quality to improve, due as I believe to careful selection by always sowing the largest and best matured seed. This plan in the course of a number of years establishes a stronger type of plants. The plants from seed selected from any of our agricultural crops as indicated above will give much stronger and better plants than seed of the same variety that has not been given the same care and attention. Also in sowing seed grown by yourself you will not introduce any new weeds on the farm.

6th. The fall wheat was so badly winter killed by the frost that there are only strips left along the fences and sheltered places. All the fields have more or less spring grain sown in them, what little there is along fences and other places is of very fair quality which will probably yield twenty-five to thirty bushels per acre.

HY. GLENDENNING,  
Manilla, Victoria Co., Ont., Aug. 1st, 1899.



## Remove Conditions Favorable to the Growth of Mould

To the Editor of FARMING:

In reply to yours of the 26th ult., I would say that we have not had much experience in the use of Formalin in preventing mould on cheese, but have no doubt if used in the way Mr. Barr recommends the results will be entirely satisfactory. We have been trying another plan which has given very satisfactory results, that is by removing the conditions (as far as possible) that are favorable to the growth of the mould. If you could do this entirely you would have no mould. The conditions that are most favorable to the growth of mould in curing-rooms are *darkness* and *dampness*. Remove the former by letting in the light. There should be at least 14 square feet of window glass to every 2,400 cubic feet of space in curing-room. Have the outside glass frosted on the inside to reflect the heat of the sun. If there are shutters that close down from the top of windows open them so that they will be at right angles from side of building, like an awning over window. White-wash on top to also reflect the heat of the sun and let the light in.

Remove the dampness by ventilation. There should be at least one ventilator, ten inches in diameter (with damper near the ceiling, so you could open and close as required) running from the ceiling of the curing room up four or five feet above the roof of building to every 7,000 cubic feet of space in curing-room.

We have been using an ice-box this season constructed on the plan recommended by Mr. A. T. Bell, of Tavistock, and it has given very satisfactory results. You can keep the temperature in a curing-room almost where you want it, and it will also dry the atmosphere in the room if, when using the ice-box, you would close the ventilators.

Two of our neighboring factories have put sub-earth ducts into their curing-rooms this season. One is reported to be giving satisfactory results in lowering the temperature of curing-room, but the cheese are moulding badly owing to the excessive moisture. The other is reported as not giving satisfactory results owing to defective construction.

In our opinion the quality of the cheese made during this season is superior to that made during the same time last season.

JOHN BRODIE.

Mapleton, Ont., July 31st, 1899.

## Ventilation of Curing-rooms: Improvement in Quality

To the Editor of FARMING:

Your favor of July 26th is to hand, and, in reply, I would say that I have not had very much experience in the use of Formalin, but, from what experience I have had, and from what I can learn from others who have used it, I do not hesitate to recommend it to cheese-makers as a great help in preventing mould on cheese. It has been my experience that where curing-rooms are properly ventilated, there is very little trouble with mouldy cheese. In curing-rooms where the windows are high and shutters are provided for the outside, I would recommend opening one window on each side of the room and a little from the top. This will cause a free circulation of air and allow the hot air at the top of the room to escape, and will aid very materially in preventing mould on cheese.

There has been considerable improvement in a number of factories in the methods adopted for curing cheese, but there is still room for great improvement along that line.

None of the factories in my district have put in sub-earth ducts yet, but some are intending to do so. A great many factories are not favorably situated for sub-earth

ducts, not being high enough to be able to get proper drainage.

Quite a number of factories have put in ice-boxes, and the experience of the makers, as given to me, has been that if the boxes are all kept filled they will aid very materially in keeping the temperature down in a good curing-room, but if the room becomes heated it takes a long time to cool it and a large quantity of ice.

The quality of cheese made in this district this year is, in my opinion, superior to that of last year, the reasons for which are: The weather has been more favorable; there has been an abundant supply of rain and good pasturage. The nights have also been cool, which has aided a great deal in the production of a better quality of milk, and in preventing the cheese from becoming heated in the curing-room.

At most factories the salesmen are selling regularly, and the cheese are being shipped as soon as they are sufficiently cured. The quantity of cheese made in this district this year is not nearly as large as last year, owing to the high price of young cattle, the farmers keeping a large quantity of milk at home to feed calves.

I am experimenting with a new style of ice-box for cooling curing-rooms, concerning which I will write later on, if it will be of interest to you.

ARCHIBALD SMITH,  
Cheese and Butter Instructor.

Harriston, Ont., July 31st, 1899.

## Several Good Methods of Preparing Land for Wheat

To the Editor of FARMING:

Your letter re some information on fall wheat was forwarded to me at Guelph. I am working in the Experimental Department at the college now but am home on my holidays.

1. In answer to your first question. I might say that there are several very good methods of preparing land for fall wheat. I think plowing down clover sod and working up a fine seed bed on top is about the best. Of course, if a person is to have a summer-fallow I think the day of the bare summer-fallow is past. It is better to sow a green crop and plow it under and work the land on top.

Rye sown in the fall and turned under early in June, then a mixture of peas and buckwheat sown, make a good preparation for fall wheat. The peas and buckwheat should be plowed under a couple of weeks before time of seeding.

2. Haven't used any commercial fertilizer.

3. I consider the first week in September the best time for sowing wheat. If a person has much to put in it might be well to begin in August.

4. Dawson's Golden Chaff has given the best result on my father's farm. Early Genessee Giant has also given good results.

5. Our seed has just been purchased lately and haven't made a change since. I think by making a careful selection a person can raise their own seed to good advantage.

6. Regarding probable yield of wheat in this district. I am not prepared to say. I haven't been home long enough to make any enquiries, but some think it won't average 20 bushels per acre. All wheat in this district was badly winter-killed.

Wheat never looked better than it did last fall. Plenty of top; rather too much I guess.

Hope you will pardon the delay in answering your letter. The questions are answered in a short way and I hope they may be of some service to you.

A. C. WILSON.

Greenway, Ont., Aug. 8th, 1899.

## Cooling a Curing Room with Spring Water

To the Editor of FARMING :

I have your favour of July 26th and have read with interest Mr. G. H. Barr's letter regarding the use of formalin. I have never used formalin but have a supply on hand in case it is required. So far this season we have not been troubled with cheese moulding. I know "a great number of cheese makers say formalin is no good," but I think Mr. Barr gets at the root of the matter when he says, "Go to work and thoroughly saturate the curing-room with formalin and then use it every day afterwards."

There are not many sub earth ducts in this section, but a good many factories have put ice-boxes in the curing-rooms with good results. I have ice-boxes in all our factories (after the plan of Mr. Bell's) and am well pleased with them. By the use of ice in hot weather we can keep the temp. 10° lower, keep the curing-room at about 67° or 68° and the air is fresh, quite different from hot, close air, so often found in curing-rooms.

At the Thames factory we have lots of spring water that will flow as high as the window sill. Last spring I put a one-inch pipe all around the curing room, and on hot days we have the water flowing through, and up to the present time we have not found it necessary to use ice, the temperature having never been above 58° or 69°. The temperature of the water is about 47°.

I think the quality of the cheese is better this year than former years. This is largely due to the cool weather and very cool nights and better facilities for controlling the temperature in the curing rooms. I have not seen what you might call "hot weather cheese" this year. When all the curing-rooms are made so that the maker has absolute control of the temperature he can make meaty cheese without being afraid of having them spoiled in the curing.

T. B. MILLER.

London, Ont., Aug. 4th, 1899.

## The Holstein-Friesian Association

### Makes a Proposition to Other Dairy Cattle Associations

To the Editor of FARMING :

The Holstein-Friesian Association of America hereby extends greetings to all associations of breeders of pure-bred dairy cows, and invites them to participate in a competitive prize contest for the production of pure butter fat ; such contest to be conducted upon the following general plan :

1. All tests and awards to be under the direction and control of a committee to consist of officers or representatives of agricultural colleges or experiment stations.
2. Each breed competing shall select one member of the committee.
3. All tests shall be conducted at the homes of the animals by a representative of an agricultural college or experiment station, and shall be made by employing the Babcock test.
4. Awards shall be for the highest production of pure butter fat per cow, and for periods of not less than seven consecutive days.
5. Each association competing to contribute a like sum of money, not less than \$500 each, and from the aggregate sum so contributed the prizes are to be awarded.
6. Cows shall be divided into classes according to age.
7. It is recommended that four prizes be offered in each class, with not less than four cows in each class.

8. All tests to be made within a year from a date to be agreed upon ; and all entries shall be made and prizes awarded within three months after the expiration of the test year.

9. The entries made from each breed shall be subject to the approval of a representative selected by each association.

10. All further details as to the division of the prize money, and necessary to carry this plan into effect, to be agreed upon by a committee consisting of three representatives from each association competing.

11. This proposition to be accepted by each association intending to compete, on or before the 1st day of December, 1899.

Very respectfully,  
Holstein Friesian Association of America.  
By F. L. HOUGHTON,  
Secretary.

Brattleboro, Vt., July 31st, 1899.

## Fall Wheat Growing

To the Editor of FARMING :

In answering your question about fall wheat growing I may say at the outset that this is a crop not generally grown here by all our farmers. When the country was new a good deal was sown, but while barley was a paying crop that and peas became the staple crops in the Bay of Quinte district. This last few years, however, quite a lot has been sown all over the district.

### PREPARATION FOR FALL WHEAT.

One of the best preparations outside of a bare fallow, which is certainly the best preparation, is a clover sod plowed shortly after the hay has been removed and the surface worked after that with cultivator and harrow up to the time of seeding. Another very good fit is plowing pea stubble, or, where it is clean enough, simply cultivating and harrowing. I find wheat needs a fine seed-bed on top but a firm under-bed below the surface. Where the land is plowed, repeated working gives this firm under-bed.

### USE OF COMMERCIAL FERTILIZERS.

I have never used any on fall wheat. If we can grow clover and carry on a system of rotation in cropping I don't believe we need to use commercial fertilizers to secure paying crops. Fertilizers containing plenty of nitrogen are the best for wheat.

### TIME TO SOW FALL WHEAT.

The range in our locality is from Sept. 1st to Sept. 10th. I prefer the last of August or first of September rather than later.

### VARIETIES OF WHEAT.

My experience with varieties is somewhat limited. We grew the White Clawson for years with good satisfaction. Clawson's Golden Chaff is the leading variety now, and is generally replacing the Red Lion, Clawson, etc.

### SOWING SAME SEED AS CHANGING SEED.

I change my seed frequently. I don't believe it would be necessary if one took the proper precautions to insure the vitality of the seed, especially by allowing the seed wheat to get good and ripe.

### PROBABLE YIELD PER ACRE THIS YEAR.

The probable yield will be about fifteen bushels per acre. Fall wheat was badly winter-killed with us.

T. G. RAYNOR.  
Rose Hall, Prince Edward Co., Ont., August 1st, 1899.

# The Farm Home

## Cooking Should be Taught in Every School.

By Mrs. S. T. Rorer.

Cooking should, without doubt, be taught in every city and country school. Friday afternoon, in my young days, used to be given to sewing. Why not give it now to cooking? The children taught, going to their homes, must throw an influence over the household not attainable from other studies. During the early part of my life, which was devoted to missionary work in the slums of New York and Philadelphia, I found one woman—a woman with four children eating a pan of uncooked beans. In one of the daily papers there had been an article recommending beans as highly nutritious for the poor, a given quantity containing more nitrogen than could be procured for perhaps ten times the money, in beef. In speaking of the cooking of beans the article stated that they must be well soaked over night to be digestible. This poor soul, never having seen a bean cooked, simply soaked them over night and ate them. It happened to be my pleasure to start in that neighborhood a cooking school, and I am sure that my friends, in Philadelphia will tell you that this school had the most elevating effect upon the neighborhood of all the work that had heretofore been done. Those women commenced to think, and, to-day, many of them are married, have good comfortable homes, earned and paid for by themselves. Cooking, I am thankful to say, is obligatory in the public schools of Boston, New York, Philadelphia, and Washington. It is also taught in the high schools of many of the larger cities; but there is an aversion to this on account of the small percentage of children attending such schools: for instance, Philadelphia, a city of a million and a half inhabitants, finds one high school building for girls and one for boys all that are necessary for pupils applying. This is supplemented, for boys, by the manual training school; for the girls, by the normal school. The children of the poor cannot find the time required for this higher education; consequently, it was found that cooking would do a greater good and have a farther reaching influence if taught in the lower grades, to girls from twelve to fifteen years of age.

It might be interesting for you to know that many of these children taught both sewing and cooking in the public schools are enabled at home to bring about rapid cures in cases of sickness by the daintily and scientifically prepared food. I have one case in mind where a small child, only twelve years of age, prepared all the beef tea and food for her father in a

case of typhoid, and was given credit by the doctor of helping to bring about a better cure. Another child has been given all the mending, and her darning is so well done that it can scarcely be told from the ordinary first weaving of the material. These things are steps in the right direction.

### Homely Proverbs.

Suspicion has a key that fits every lock.

Don't pull the house down because the chimney smokes.

If you give me a knife give me a fork, too.

Give me to drink, but drench me not.

A hole in the purse, and the cupboard the worse.

The fuller the hand, the harder to hold.

Stroke the dog, but beware of his bite.

Heap on the coals and put out the fire.

The fool kept the shell and threw away the kernel.

One cock is sure to crow if he hears another.

In comes the fiddler and out goes the money.

The shorter the wit the longer the word.

Saw off any branch but that you are sitting on.

My partner ate the meat and left me the bone.

If you break your bowl you lose your broth.

Don't wait till it is dark before you light the lamp.

Every bell must ring its own tone.

If you shoot one bird you scare the whole flock.

Beware of pride, says the peacock.

You must shut your eyes if the dust blows in your face.—*The Academy.*

### How to Utilize Buttermilk.

The housewives who always use sweet milk and baking powder in articles where such ingredients or their equivalents are called for little guess the superior results which may be obtained from the use of sour milk or buttermilk and soda. If sour milk is used it must be freshly soured, not stale; hence, the best time to use it is in the summer time. Buttermilk is preferable all the year round. Biscuits, griddle cakes, waffles, corn-breads, muffins, gems, gingerbread, cookies, etc., are all of them more tender, deli-

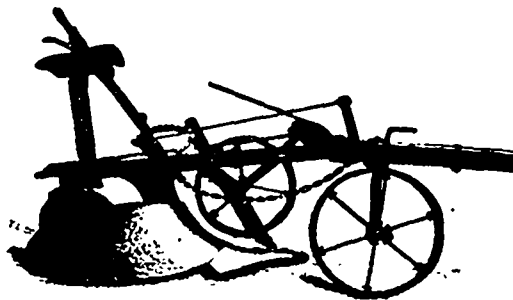
## BEST SULKY PLOW

IN THE MARKET

The Lightest  
in Weight.

The Simplest  
in Working.

The Easiest  
in Adjustment.



The Lightest  
in Draft.

The Strongest  
in  
Construction.

The Highest  
in Quality.

### THE LOWEST IN PRICE

Adjustments for any ground or any depth made by one lever. Fitted with the only perfect Tilting Coulter and Stubble Cleaner. A Plow without an Equal. Send for Circulars and Price List.

## The Perrin Plow Co.

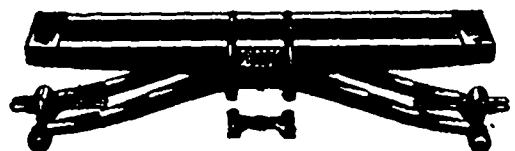
LIMITED

Smith's Falls, Ontario

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

"XXX" Bolster Springs

They are the only perfect spring made. In comparison with these all others are useless. Address J. H. MORROW, General Sales Agent, Brighton, Ont. Special inducements to introduce where we have no agent.



cate and probably more wholesome (since the majority of baking powders are adulterated) if they are made of buttermilk and soda. A general rule is one level teaspoonful of soda to one pint of buttermilk or freshly soured milk. The soda must be first pulverized by rubbing with a knife on the table or breadboard, then added to the flour, to be sifted with it. It is even well to sift the flour, soda and salt together two or three times to insure an even blending. In a very short time one learns to gauge the soda exactly to the acidity of the milk to be used. Baking powder cannot give the best results in the class of articles enumerated. — *Woman's Home Companion.*

**Iced Water Preferable to Ice Water.**

Iced water is preferable to ice water—iced water being cooled by the ice without being brought in direct contact with it. The less ice water one drinks the better. Ice water increases one's thirst—that is, there is a greater tendency to desire drink, inasmuch as ice water slakes the thirst for a moment but does not quench it.

**Care of the Eyelashes.**

The ancients made an art of the cultivation of the eyelashes. It was recognized that, besides adding to the expression of the eyes, the lashes preserved them from the dust, cold wind, and too glaring light, all of which tend to irritate and often inflame the eye. It is, therefore, not a vanity to endeavor to obtain them and then preserve them from falling out. A little pure vaseline applied to the eyelashes every night will aid their growth and strengthen them.

**Fattening Melons.**

Before the melon has attained its full size, and while in a growing condition, insert one end of a strip of fine cotton cloth, about half an inch wide, and three or four inches long, into the stem of the melon, by splitting the stem with a sharp knife, and place the other end of the strip into the neck of a wine bottle filled with water, inclining the bottle so that the water may be absorbed by the string, which acts as a siphon, and the end on the outside of the bottle should be a little lower than that which is within the bottle, and in twenty-four hours the bottle should be refilled, as the water will have been imbibed by the melon, and in a week or ten days will have attained its full size. You will then withhold the water to give it a chance to ripen, otherwise it will be quite insipid and unfit to eat.

"What quantities of grass you keep here, Miss Sue. Nice place for a donkey to get into," said a facetious fop to a young woman who had ornamented her sitting-room with dried grasses. "Yes, just make yourself at home," was the quiet reply.

**Thom's Pneumatic and Propellor Elevator Feed Cutter**

Our machines have filled more silos, twice over, than has been filled by all the other combined families of : itation machines.

It's foolish boasting for any firm to say that their machines are the only practical pneumatic cutters on the market.

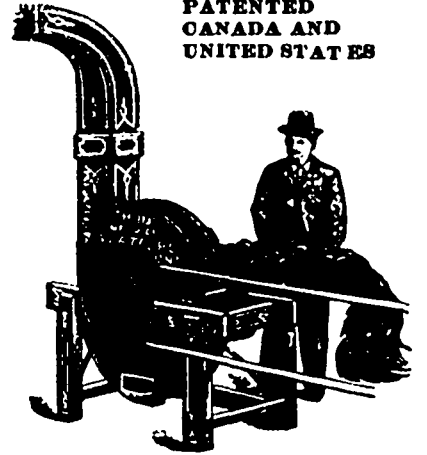
We are the originators and the patentees, and the only safeguard against being humbugged is to see that the machine you purchase is marked "Thom's Patent."

Every honest manufacturer in Canada knows that we are the leaders and that our machines represent all that is latest and best.

We guarantee to fill any silo in Canada, we are not what the height may be, at the rate of to 12 tons per hour.

And we remind the farmers, we make High Grade Plows, Riding and Walking. Our latest is the "Ideal" Two-furrow Gang, for two or three horses, intended to do the work of two ordinary walking plows.

Wherever our Plows are not already known, special prices to introduce them. Once on the farm they prove a comfort.



PATENTED  
CANADA AND  
UNITED STATES

**THOM'S IMPLEMENT WORKS**  
Established 1875 **WATFORD**



**These Ranges**

With remarkable draughts ensuring perfect operation.

With beautiful appearance—giving joy to all.

With rapid baking ovens—delightful to every housekeeper.

With great reputation for economy—making you very happy—are the very best Ranges in Canada.

A booklet gladly sent on application.

THE **ABERDEEN** (for coal and wood)

THE **VICTORIAN** (for wood only)

**The Copp Brothers Co., Hamilton**

Branches: TORONTO and HAMILTON.

**"Good Cheer"**  
---RANGES---

We have pretty Book-Mark ---It's yours for the asking.

The **JAS. STEWART** Mfg. Co. Limited, Woodstock, Ont.

**SCHOOLS.**

**TORONTO**

**Don't  
Hold  
Back  
That  
Inquiry  
For  
Information**

Perhaps you've seen our advertisement before, and made up your mind to look into the matter of a business education. You put it off for a time. Don't delay any longer. Business is on the boom. Business hands and business heads are wanted along every line. Prepare to be on the crest of prosperity's wave. Learn Shorthand, Bookkeeping or Telegraphy.

**CENTRAL  
BUSINESS  
COLLEGE,  
TORONTO,  
ONT.**

W. H. SHAW,  
Principal.

**STRATFORD**

**Fall Term Opens Sept 5th**

*Central  
Business College*

STRATFORD, ONT.

Write to day for our new catalogue. It's the finest business college catalogue in Canada, and represents the most progressive and best school.

W. J. ELLIOTT, Principal.

**Canada's Great Eastern**

**EXHIBITION**

**SHERBROOKE, Que.**

**SEPTEMBER 4th to 9th, 1899.**

FIVE FULL DAYS OF FAIR AND  
TWO EVENING PERFORMANCES.  
More varied and extensive Programme  
of Attractions.

**ADGIE and her  
TRAINED LIONS**

A most thrilling performance, executed by her troupe of Royal African Monarchs of the forest.

**MOA & GOODRICK**

COMEDY ACROBATS, in their unique, uproarious and undulating entertainment.

**DARING AND CAPTIVATING**

**BICKETT FAMILY**

Aerialists Supreme. Four handsome young ladies and one male athlete in the most remarkable performance ever seen in mid air.

**The Bark-Ben-Achments**

in a series of most wonderful gyrations upon rolling globes.

**Carl Dahmann Troupe**

Composed of the foremost French, German and Algerian Acrobats, from the leading European circuses and theatres.

**Rosaire and Elliott**

Grotesque Acrobats, Comedians and Pantomimists

**The Martellec**

Fancy Trick and Acrobatic Bicyclists. The only act of its kind in the world

Daring **Mlle PROSPETTO**

introducing her two educated horses, **NEPHZIAN** and **NON QUIXOTE**. Many other Acrobats, Contortionists, Aerialists, Tumblers, Jugglers, etc.

**Balloon Ascensions**—Single and Double Ascensions and Parachute Leaps and Balloon Races.

**Elaborate Fireworks**—"British and American at Samoa."

**Exciting Races**—Running, Trotting and Pacing. \$1,225 in Purse.

**Grand Agricultural and Industrial Display.** Matted Beds of Music. Excursions on all Railways.

Admission to Grounds, 25c. Carriages, 25c. For further particulars, Prize Lists, Entry Forms, etc., apply to H. K. FRASER, Mgr.

**Making Light Bread.**

By Mrs. J. R. Burt.

Put one yeast cake in a teacup, pour tepid water on to soften it. Do this half an hour before time to set the bread: take one quart of water, sweet milk or buttermilk, either will make good bread. If water is used, let it be as hot as the hand can bear, stir in sifted flour until *sauz batter* is made; stir in the dissolved yeast cake and beat thoroughly. This sponge should be set at night, and kept in a warm place until morning; then add one small tablespoonful of salt, one-half a teacup of butter or half lard, and if the weather is warm a lump of soda as large as a pea; add flour enough to make it stiff; put on the pastry board and knead until it no longer sticks to the board; set away to rise, which it ought to do in one and a half hours; then make into four loaves, working each well, and when light set in oven to bake. The proper temperature for the oven is such as will allow the hand to be held in it while you can count thirty. Allow one hour for baking; when taken from the oven rub over the crust with butter and wrap in several thicknesses of cloth to soften.

**TOMATO CATSUP.**

To make tomato catsup take one peck of good, ripe tomatoes, boil well and mash through a sieve as long as a bit of pulp will come through; add two tablespoonfuls each of allspice and salt, one tablespoonful of black pepper, one of mustard, one teaspoonful of Cayenne pepper, one teaspoonful of cloves, place on fire and add one pint and a half of vinegar, boil until thick and bottle for use. The salt, red pepper and mustard put in so; the spices tie up in small thin bags; press occasionally while cooking.

**How to Pick out a Good Cat.**

A good cat—the kind you want to have in the house, if any—will have a round, stubby, pug nose, full, fat cheeks and under lip; a well developed bump on top of the head between the ears, betokening good nature, says *Woman's Life*. A sleepy cat that purrs a good deal is apt to be playful and good natured.

By all means to be avoided is a cat with thin, sharp nose, and twitching ears. It must be remembered also that a good mouser is not necessarily a gentle or desirable pet. Although any good cat will catch mice if she is not overfed, quick, full, expressive eyes generally betoken a mousing cat.

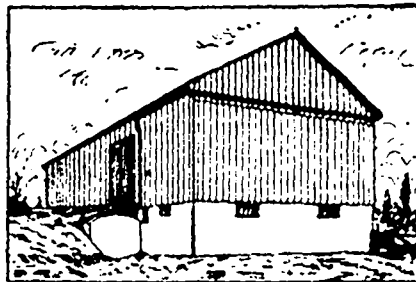
The greatest mistake—and probably the most common one—in the care of domestic cats, is overfeeding, particularly too much meat.

Sing a song of shortcake,  
Dough three inches through;  
Four and twenty strawberries  
For a hungry crew.  
When the cake is opened  
And is passed around  
Just about one berry in  
Each dry piece is found.

**THOROLD CEMENT**

High in quality. Low in price. 58 years in business.

Basement of this barn was built with  
Battle's Thorold Cement.



Do you intend renewing your stable floor this fall? If so, why not consider the question of putting in a Cement Floor? It is cool in summer, can always be kept clean with very little labor and without the soakage which is found so annoying and unhealthy for man or beast in connection with wood floors, is warm in winter, as cheap as a wood floor, and will last for all time. It is smooth but not slippery. Write for prices and full information to

**ESTATE OF JOHN BATTLE  
THOROLD, ONT.**

Mention this paper.

**COMMON SENSE KILLS** Roaches, Bed Bugs, Rats and Mice. Sold by all Druggists, or 381 Queen W. Toronto.

**BEWARE OF IMITATIONS**

**Apples**

All desirous of exporting apples to the home market will be furnished with reliable information by writing

**EBEN JAMES** Board of Trade Building **TORONTO**

Canadian Agent for Woodall & Co., Liverpool; Boyd, Barrow & Co., Glasgow; M. Isaacs & Sons, London

Reference—Mr. W. H. Dempsey, Bay of Quinte Apple Experimental Station, Trenton, and many others.

**CANADIAN PACIFIC RY.**

**HARVESTERS WANTED** IN MANITOBA AND CANADIAN NORTH-WEST

**FARM LABORERS' EXCURSIONS**

WILL BE RUN TO FOR

From stations in Ontario, Toronto and West, <b>AUGUST 22</b> East of Toronto, <b>AUGUST 24</b>	<b>WINNIPEG</b> ..... And all stations North-west, West and South-west 1) <b>MOOSE JAW</b> ..... <b>ES'EVAN</b> ..... <b>YORKTON</b> ..... <b>OWAN</b> .....	<b>\$10</b>
--	---	-------------

Every passenger will be given a certificate, which must be deposited with Agent immediately on arrival at station where passenger finally leaves the train. Providing conditions of certificate are complied with, and on surrender of same properly filled out and signed and payment of \$18, the original holder will receive a ticket back to starting point. Round journey must be commenced on or before Nov. 22, 1899. Choice of routes:—All rail via North Bay; or Lake and Rail via Owen Sound. St. p-over will be allowed at Winnipeg and points beyond. Special Train leaves Toronto at 1.30 p.m. August 22 and 24, via North Bay. Through Colonist Sleepers will be run Toronto to Winnipeg. Ask your nearest Agent for pamphlet giving particulars. **A. H. NOTMAN, A.G.P.A., Toronto.**

## 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.

**Change of Address.**—When a change of address is ordered, both the new and the old address must be given. The notice should be sent one week before the change is to take effect.

**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.

**Discontinuances.**—Following the general desire of our readers, no subscriber's copy of FARMING is discontinued until notice to that effect is given. All arrears must be paid.

**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.

### Oatmeal for Young Chickens.

According to analysis oats are among the best grains to promote egg-laying in hens. But as often happens, practice contradicts the conclusions of the chemist. Probably the oat grain is all right to make eggs, but fed with the hull the mass fills the gizzard too quickly, and possibly even clogs it, so that the oats cannot be digested and the fowl becomes cropbound. At all events, we never changed from whole wheat as feed to oats without noticing a falling off in egg production. But for the youngest chicks we know no better feed than ground oats slightly moistened and fed with milk curd, squeezed until it is nearly dry. This is as good and cheaper than feeding hard-boiled eggs crumbled fine, though this last should be given occasionally for variety of ration. So soon as the chicks are a week old broken wheat is their best food. They will very quickly learn to eat whole grains of wheat, but the cracked pieces which are damaged for sale for grinding can be had more cheaply and are just as good. Whatever food the chicks have, they should have access to gravel at all times.

### Cause of Soft Shelled Eggs.

The laying of soft shelled eggs by fowls is usually due to one or other of two causes. The first is an overfat condition of the birds, and the second a lack of sufficient shell-forming material in their food. The remedy in either case is obvious. In the first instance the birds should be denied whatever food it is that is responsible for their high condition, while in the second bone meal, oyster shells, and other materials calculated to supply lime to the system should be fed to them.—*Exchange.*

### Sherbrooke Fair.

We would call the attention of our readers to the advertisement of Canada's Great Eastern Exhibition which appears in another column.

The management of the E.T. Agricultural

## Farm for Sale.

### A SNAP

**\$5,600** BUYS a Forty - Nine - Acre FRUIT FARM six miles from St. Catharines, Ont. Splendid House, Barn, Well, Etc. Good terms to right party.

Address,

**GEO. W. KEYES,**

St. Catharines, Ont.

Drawer 30.

# EPILEPTIC

**LIEBIG'S  
FIT CURE**

Will cure Epilepsy, Fits,  
St. Vitus Dance and Falling Sick-  
ness. A TRIAL BOTTLE sent FREE of  
ALL CHARGE to any sufferer sending  
us their name and address and  
mentioning this paper.  
Address The LIEBIG CO.  
179 King St. W.,  
Toronto.

# FITS.

## The Ashes of Wheat

Are 76 per cent. Phosphates

By far the greatest portion of which is Phosphate of Magnesia. The requirements of an acre of average crop of clover are 25 per cent. more phosphate than wheat or other grains and 75 per cent. more magnesia, and an acre of turnips requires over 50 per cent. more Phosphate than the grains.

## Thomas-Phosphate Powder

(REGISTERED)

is the safest manure to meet these demands, as it supplies Phosphate of Magnesia as well as Phosphate of Lime and of Iron. Faithful experiment has shown that Thomas-Phosphate increased the yield of mutton by 175 per cent., whereas the hay yield has only increased 50 per cent. Turnips properly phosphated have also shown greatly increased feeding value.

THE  
THOMAS-PHOSPHATE CO.

BOARD OF TRADE,  
TORONTO.

## TOLTON'S No. 1 Double Root Cutter Points of Merit



1. To change from pulping to splicing is but the work of a moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke.

### The Only Double Root Cutter Manufactured

Fitted with Roller Bearings, Steel Shafting and all that is latest and best in principle, material and construction.

Do Not Fail to See our Exhibit at the Toronto Fair

## TOLTON BROS., - - Guelph

Association have always made it their aim to provide a fair for the masses. They have neither allowed their exhibition to assume the character of a race meeting pure and simple, nor have they drifted to the other extreme, and provided a mere flower fair, horticultural display or poultry show. In fact, all these restrictive features have been combined in one cosmopolitan diversified whole, which we may truthfully say has established a criterion for all fall fairs of Canada. It is in fact a fair in the true sense of the word, and the popularity which it has always enjoyed in the past will certainly guarantee a big showing in September next.

### The Nation's Holiday.

Toronto's Exhibition this year will undoubtedly be held on a greater scale than ever, that is, if an increased expenditure of money and a ransacking of the corners of the earth for novelties can make it so. The dates chosen are from the 28th of the present month to September 9th. The entries for live stock, dairy products, ladies' work, manufacturers, grain, field roots and horticultural products closed last week, but entries of dogs and poultry will be received up to August 19th. The indications favor the grandest exhibition in every department that Canada has ever seen, many novelties in manufacture and the latest inventions being shown. A large amount of money has been expended in the erection of new buildings and the improvement of others, while to prove that the Exhibition exists for practical, as well as amusement purposes, the prizes for cattle and horses have been materially increased, and classes added for butter-making competitions and export bacon hogs. But the amusement programme this year will be a wonderful one in extent as well as in variety. Several high-priced acts never before seen in this country, and that will not be seen elsewhere, have been secured, while a comprehensive demonstration of electrical development, including Wireless Telegraphy, Wireless Telephoning, and the Improved X Rays will be presented, as well as Explosions at Sea, managed by Royal Engineers, and an exhibition of Life-Saving from shipwrecked steamers by Professional Life-Saving Corps. The Evening Spectacles will be on an exceptionally brilliant scale, representing the Battles of Omdurman in Egypt, with the Sirdar in command, and of Iloilo in the Philippines, the whole concluding with the Greatest Fireworks Display yet witnessed, and a Grand Tableau illustrating Anglo-Saxon unity. On all lines of travel exceptionally low rates have been arranged for.

### Stock Notes.

IMPORTANT SHIPMENT OF ENGLISH PEDIGREE SHEEP TO CANADA AND THE UNITED STATES.—On Monday last, the 24th July, per the ss. *Monterey*, Messrs. Alfred Mansell & Co., Shrewsbury, England, shipped 317 sheep of various British breeds, including Shropshire, Oxfords, Southdowns, Hampshires and Cotswolds, on account of Mr. Robert Miller, the Hon. John Dryden, M.P., Mr. Geo. Allen, Professor Curtis, Mr. L. B. Harris, Mr. W. C. Edwards, M.P., and Mr. John Milner. Further details of this important shipment will appear later.

PEDIGREE SHEEP FOR CANADA.—Referring to the shipment made by Alfred Mansell & Co. on the 14th of July to Mr. John Campbell of Fairview, Canada, we are informed that the selection made included several prize winners at the Bath and West of England Show, also Mr. H. William's recent winners in their respective classes at the Shropshire and West Midland Show, comprising ram lambs, shearling ewes and shearling rams. One of the latter, his late owner believes to be the best ram he has bred since "Newton Lord" left this country for his great career on the American continent. Taking the consignment as a whole the sheep reflect great credit upon the breeders and the breed which they so worthily represent, and should add fresh laurels to the already renowned Fairview flock.

## WANTED

A man and wife to work on farm in Manitoba, man to team or tend stock, woman to have full management of house and cook for three men. Splendid location, good buildings and near town and church. For further information, write to W. L. M. JONES, Lyons-hall, Manitoba.

**THE FINCH WOOD** — **← PRESERVATIVE AND PAINT →**  
Unequaled for Farm Building. Send for Circulars  
**FINCH WOOD PRESERVATIVE and PAINT CO.**  
TORONTO, ONT

**TREDINOCK STOCK FARM, ST. ANNES DE BELLEVUE, QUE.**

**Imported and Home-Bred Ayrshire Cattle**

Winners of 34 prizes in 1898 at Toronto, London and Ottawa—17 of them Firsts.  
**Six Young Bulls** for sale, five of their dams shown at the above three shows, and all sired by Imported Bulls, four of them being by Napoleon, the Sweepstakes Bull of Toronto.  
Also a few **HEIFERS** and **COWS**. Apply to  
**ROBERT REFORM, JAMES BODEN**  
Prop. | St. Annes de Bellevue, Que. | Mgr.



**Hursley Stock Farm**

**A.J.C.C. Jerseys**

Popular St. Lambert blood. 12-year-old bull ready for service to offer, also a number of extra fine bull calves for sale. Some choice heifers 2 years old and milking for sale. Large improved Yorkshires. A large number of pigs ready to ship. No better to be had.  
**SILLS SHAVER & SON, Winchester Springs.**

**W. R. BOWMAN,**

**MOUNT FOREST.**

**OFFERS** 30 Yorkshire Boars and Sows, all ages, at prices away down. 30 Shropshire and Suffolk Shearling Rams and Ewes, at \$12 to \$15. 25 Lambs, weighing 110 pounds, at \$10.

All Stock Registered.

**Wm. Butler & Son**

**Dereham Centre, Ont.**

# A Trifle

**BUT—**

Salt seems a trifle but it will either make or mar Butter or Cheese. Use **Windsor Salt** which adds to the sweetness, and to the price.

Perfectly pure, dissolves uniformly  
All progressive Grocers sell

**WINDSOR SALT**

The Windsor Salt Co., Limited  
Windsor, Ont.

**HERMANVILLE  
..TAMWORTHS..**

I HAVE several litters nursing, and also a number of June litters of the highest quality and bluest blood in North America. The "Parkhill Mab" strain of Tamworths can only be obtained from me. I make a specialty of choice Breeding and Exhibition stock. I like to ship when "ready to wean." I respectfully solicit your valued orders, and will be glad to quote you prices, delivered free in any part of Canada or the U.S. Address—

**Hermanville Farm, P.E.I., Can.**

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.



## SUMMERHILL HERD OF YORKSHIRES



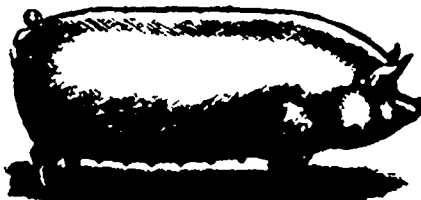
**The Lengthy English Type**

The largest herd of Imported and Canadian-bred Yorkshires of the large English type in Canada. 25 matured imported sows, among them being several royal winners. Six imported sows sired by Buddington Lad, Royal winner and gold medal boar for the best pig of the white breed. Have those imported stock boars bred by such breeders as Sanders Spencer and Philo L. Mills. 25 April pigs (imp) of both sexes for sale. Also a number (imp) in dam. 200 Canadian-bred pigs of all ages for sale. Write for prices. Personal inspection preferred. Prepay express charges and guarantee stock as described.

**D. C. FLATT, Millgrove, Ont.**

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

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

# The Agricultural Gazette

VOL. II.

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

No. 44

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

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders' \$1; Swine Breeders' 3.  
**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' Associations 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 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

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

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

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

### Notice to Breeders of Registered Live Stock.

The following order has been issued by Customs Department at Ottawa:

CUSTOMS DEPARTMENT,  
Ottawa, July 3rd, 1899.

TO COLLECTOR OF CUSTOMS.

Metallic ear tags (numbered) accompanying the pedigrees of animals imported for the improvement of stock, may be admitted free into Canada as of "no commercial value."

(Signed) JOHN McDONALD,  
Commissioner of Customs.

### Stock for Sale.

The next list of stock for sale will be published in the exhibition number of FARMING, which will be issued August 31st. We wish to make this number of THE GAZETTE an attractive one, and the list of stock for sale as large as possible. Members of the Live Stock Associations are requested to send in their lists of stock for sale so they will reach the office of the secretary not later than August 21st.

### Tent of Superintendent of Farmers' Institutes.

The Superintendent of Farmers' Institutes will again have a tent situated on the grounds of the Toronto Industrial Exhibition during the time of holding the fair this year, August 30th to Sept. 8th, and will be pleased to meet officers and members of Farmers' Institutes and of the Live Stock Associations, and any person interested in agriculture. Breeders of live stock, Institute workers and others are also invited to make this tent their headquarters while in attendance at the Exhibition. A desk and writing materials will be placed at the disposal of visitors. Further particulars will be given at a later date.

### Shipment of Live Stock to British Columbia.

Mr. W. E. Butler, Dereham Centre, Ontario, intends to ship several cars of

pure bred live stock to British Columbia in September, and is willing to take a few animals in each car for other parties. Persons wishing to send animals to the west are invited to correspond with Mr. Butler. The rates will be the same as those charged by the Dominion Live Stock Association.

### Institute Memberships.

The following is a list of the Institutes from which names have been received since the last list published:

Algoma East.....	2
Elgin East.....	1
Lanark North.....	2
Muskoka North.....	11
Wellington East.....	1

### Good Pork for Three Cents a Pound.

By J. S. Woodward

There is *pork and pork*. Pork that is made in filthy, ill-smelling pens, fed on city swill, offal from slaughterhouses, dead horses, and other foods of like character, and finished off on corn-meal, which is fit only to breed scrofula and other maladies that afflict humanity.

Pork made in pure air, open fields, clean pens, fed on grass or other cooling and succulent foods is healthy, sweet, delicious and fit to be placed on the tables of the most fastidious epicure of any country.

Experiments made at stations have demonstrated beyond question that the character of the meat produced is very much due to the nature of food eaten, and in no animal more so than in the pig.

That corn foods of like composition produce meat largely fat with small bones, and but little muscle or lean meat, and that dry and hard; while nitrogenous and succulent foods make strong bones, plenty of blood and lean meat, and that juicy and tender.

They have further shown that this modification or change of character can only be made when the pig is young and growing. As in the human family, "early impressions are most lasting and hard to obliterate," so in

the pig, it is hard to overcome the effect of the food in the first few months of its life.

What the farmer wants to know is, how to make pork most healthful and of highest quality, and consequently be most in demand and bring the highest price. Luckily, such pork can be produced at the lowest cost. In order to make such pork cheap he must start right. Of course there is much in breeding, but so long as there is so much more in feed and care I am not going to enter into a discussion of breeds further than to say select one that will respond quickly to good feed and care.

When such a one is found, remember there are certain principles in animal nutrition that must be understood and certain conditions complied with to produce the best pork at least price. Among these principles the following are important:

The pig eats, first to sustain life after that to increase in size.

The most of the food used in sustaining life goes to support bodily heat.

The balance in replacing worn-out tissues and keeping up the functions of life.

All growth comes from food eaten in excess of that necessary to sustain life.

The elements of nutrition needed in the food vary according to the functions to which they are to go. Those used to keep the pig warm must be carbonaceous or heat-producing.

The supply of fat in the growth or in fattening comes from the same element, which is also largely drawn upon by the exercise the pig takes.

The hair, hoofs, lean meat or muscle as well as the blood comes from the nitrogenous elements, while the bones are from the mineral elements in the food.

If the pig be fed wholly on food deficient in any of these elements it cannot thrive. If lacking in bone material its frame will be dwarfed and its bones weak and liable to break. If on food rich in the carbonaceous and lacking in the nitrogenous elements it will cease to grow and become excessively fat. It may be even "starved to death as fat as butter."

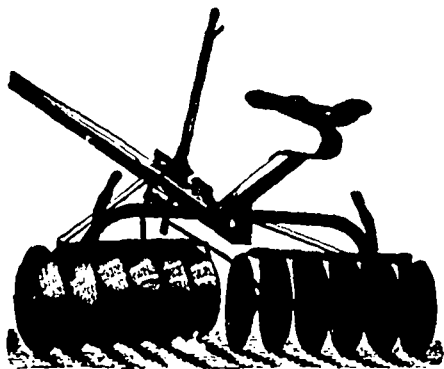
If on the contrary the food contain an excess of the nitrogenous and bone-making material the pig will develop a larger frame with lots of muscle and very little fat.

Another very important principle is involved. The digestive and assimilative ability of the pig is very much greater than when it comes to "hoghood."

And lastly, but by no means least, comes the fact that a pig once stunted can never after be made to make pork at a maximum profit.

With these principles established as well as the fact that people now call





## The Bissell-PreScott Disc Harrow

Is especially adapted for Summer-fallow cultivation, preparing seed bed for wheat, working stubble fields after harvest.

Successfully works hard ground where other Harrows fail.

### The Leading Disc Harrow

T. E. BISSELL, - FERGUS, ONT.

GAZETTE—Continued.

for and eat lean meat, and reject that which is unduly fat, it follows that to make the best pork at lowest cost the pig must be well-bred, started right and then fed, from its natal day till it brings up on the block, on the right kind of food to produce juicy, lean meat and enough to make the largest gain.

The pig that is wintered weighing no more in the spring than in the fall has been fed all winter at a dead loss, and worse still it has become stunted and dwarfed beyond hope of recovery or profit from subsequent feeding.

The best pork, most economically made, is that which is produced on the pig in the shortest time after it is born, one that gets most of its living on a fresh pasture in the open summer field.

But in order to get the pigs in the spring for this purpose we must winter a lot of breeding sows to drop pigs ready to go on to the fresh pasture of early spring. To do this successfully and cheaply is one of the prime factors in this whole problem.

An unhealthy sow cannot produce a healthy, thriving pig. An over fat sow will be sure to bring small little pigs hardly worth the raising.

What is wanted is a strong, healthy, big-formed pig with lots of growth and to get such a one we must have a strong well-developed muscular sow in the most robust health with a system so nourished as to be free from all feverish tendency and natural in all functions and able to furnish an abundance of good milk for the pig from the moment of birth.

Such a sow in such a condition can never be had by feeding on any food rich in carbonaceous material and running out of doors and sleeping in a snow bank.

She must be put into a dry, airy, well-ventilated, warm and roomy pen and fed on cheap, succulent food, nitrogenous in its nature and with an abundance of bone-making material. A dozen sows weighing from 200 to 300 pounds each may be put into a pen as above described, 30x40 feet, with good height to the ceiling and be safely wintered on six bushels of mangels and 24 pounds of coarse middlings or fine, re-ground bran each day with all the good early cut, well cured clover hay they will eat, and be in the finest condition to farrow an average of eight well-developed, healthy pigs each. The mangels should be fed whole so as to give the needed exercise in eating them.

## STILL IN THE VAN

### SEED WHEATS

Pearce's Paramount  
Gold Coin

Diamond Grit

Early Arcadian

AND ALL THE LEADING VARIETIES

CATALOGUE Now Read —Send for One.

Also, our 72-page POULTRY CATALOGUE—Ready to Mail Sept. 1st  
BULB CATALOGUE Now Ready.

JOHN S. PEARCE & CO.

LONDON, ONT.

These sows should be bred so as to farrow in March or very first days of April, and of course a few days before each is expected to farrow she should be penned off by herself, with the proper conditions of bedding, etc., to render it sure she will have no difficulty in bringing forth the expected litter. As the mangels can be grown very cheaply and the bran bought for from \$10 to \$15 per ton, the cost of wintering will be but very little and your pigs cost only a song. Having thus secured a lot of pigs very cheaply, and what is of more importance, having them well born, the remaining thing to do is to feed them at least cost on the most desirable food. No food is better or cheaper for the young pig than sweet skim milk when it can be had. But as soon as old enough pigs should always have the use of a pasture field. Clover makes an excellent pasture for pigs, but no plant is better food for the pig or more easily provided than Dwarf Essex rape; by having land rich and prepared in the fall it can be seeded to rape with the first warm days of spring and in from four to six weeks be large enough to begin feeding. Pigs are very fond of this and may be pastured on it, or it may be cut and fed to them in another place. If the rape gets the start of pigs it should be mowed off for sheep or cattle, in any case it grows quickly after being cut or eaten off, so that a comparatively small field will feed a lot of pigs.

In addition to all the rape or clover they will eat the pigs should have some dry food; for this purpose nothing is better than coarse middlings. Bran, even if ground very fine, is not as good for the young pig, it is all right for feeding the old sows in winter but is too coarse and laxative for the pig. Unless it prove too laxative the addi-

tion of a little linseed meal, one part to four of middlings will be a good change for the pigs occasionally.

They should have all the middlings they will eat clean so as to keep them gaining as fast as possible until they weigh from 100 to 120 live weight. There may now be added to the feed's one-fourth its weight of corn meal, and this should be increased from time to time until the food is half corn meal.

As soon as the pig will dress from 115 to 175 it should be sold, and if one reared and fed as above indicated will have cost less than three cents per pound for the dressed weight and the meat will be lean, tender and juicy and sell for such a price as to leave what should be a very satisfactory margin of profit.

If the following mixture be prepared and kept in a bag under cover and always accessible to the pigs and hogs it will be found very beneficial and go far in keeping them free from internal parasites:

One and one-half bushels corn cob charcoal, three pecks hardwood unleached ashes, fifty pounds fine bone meal, six pounds salt and one pound copperas.

Break the coal quite fine, mix coal ashes and bone meal together, and dissolve salt and copperas in water, and with the solution sprinkle the mass frequently, stirring so as to have all well incorporated together. To prepare the cob coal, dig a hole in the ground, start a fire in the bottom, pile on the cobs, and cover quickly. Leave just vent enough so the whole mass will get on fire, and then cover up and leave until the whole is cooled down.

This is a capital condiment for the hogs at all times.

Lockport, N.Y.

# Market Review and Forecast

Office of FARMING,  
Confederation Life Building,  
Toronto, August 14th, 1899.

Trade has already commenced to assume a little activity in some fall goods lines. Paper falling due on Aug. 4th and succeeding days has been fairly well met. Money on call seems to be obtainable with less trouble at five per cent. than formerly and it looks as if money was not going to be as tight as was anticipated.

## Wheat.

Interest in wheat circles is now centred in the yield of the present crop. Reports regarding the crop are generally more favorable. The English crop will likely be a full average which is from thirty to thirty-two bushels per acre. A recent American crop report shows the condition of spring wheat in the United States to have declined 8.1 points during July. As shown elsewhere spring wheat in this province is likely to prove very satisfactory, but as the acreage is small it does not cut much figure in agricultural summary. Ontario fall wheat is on the whole a poor crop and the total yield will be considerably below that of last year. Very glowing reports come in regard to the Manitoba crop which it is considered will yield at least twenty-five bushels per acre or a total yield of fully 40,000,000 bushels, the largest on record for the Canadian west.

The market situation has not changed much, if there is any change it is in favor of the buyer, though the American crop report for August is inclined in favor of the seller. The world's supply of wheat in sight continues to grow and is now 39,288,000 bushels more than at this time last year. The markets as a rule have been slow with holders more anxious to realize. Very little is doing at Montreal, excepting in Manitoba wheat which is steady. Prices here are considered to be above an export basis and buyers are inclined to hold off for lower prices. Ontario red and white sells at 67 to 68c. north and west, and 65c. for new; goose is quoted at 67 to 68c. north and west. On the Toronto farmers' market red and white is quoted at 70 to 73½c.; spring five at 66c., and goose at 68 to 70c. per bushel.

## Oats and Barley.

The prospects are that there will be a good yield of oats in this province. There is a better feeling in the English market, which has resulted in more enquiry on this side. Holders at Montreal are asking 32½ to 33c. afloat, which is a slight advance over last week. The market here is somewhat easier at about 28c. west, though exporters are not inclined to pay that much. On the Toronto farmers' market oats are quoted at 31c. per bushel.

As the feed market is quiet at this season there is not as great a demand for feed barley. Feed barley is quoted at 40 to 42c. at Montreal and malt barley 48 to 50c. per bushel. 40 to 41c. are the quotations here.

## Peas and Corn.

The market for peas is dull and quiet. Very few are offering here, where quotations are 66 to 67c. west.

Corn markets continue steady. American is quoted at Montreal at 40 to 41c. in car lots. The same quality is quoted here at 41 to 42c. on track.

## Bran and Shorts.

There is a good demand at Montreal for Ontario bran at \$13.50 to \$14.50, and \$14.50 to \$15.50 for shorts in bulk lots. City mills here sell bran at \$14 and shorts at \$16.50 per ton in car lots f.o.b. Toronto.

## Eggs and Poultry.

The English egg markets are steady at the recent advances, and a good demand for fresh Canadian is reported. Receipts at Montreal continue to show a marked falling off as compared with last year. The market is firm though not active. Selected fresh stock is quoted there at 14½ to 15c. wholesale. There is not much activity in the egg market here, where choice new laid bring 12 to 13c. wholesale. On the Toronto farmers' market new laid eggs bring 14 to 17c. per dozen.

On the farmers' market here chickens bring 45 to 75c., ducks 50 to 90c. per pair, and turkeys 15 to 17c. per lb.

## Potatoes.

The Ontario crop reports for August indicate a good yield in this province. Receipts are increasing at Montreal where new potatoes are quoted at 35 to 45c. per bag or 70c. to 80c. per barrel. Potatoes here are selling out of store at 45c. to 65c. per bag and on the Toronto farmers' market at 70c. to 80c.

## Fruit.

Reports regarding the Ontario apple crop are somewhat conflicting. While some look for a fair average yield of fruit, others report that it will be below the average. The Quebec crop is somewhat uneven. Later reports regarding the English crop indicate a probable shortage which may leave a good opening for Canadian winter fruit. The general fruit trade at Montreal is about the same as a week ago. Canadian apples have been coming in more plentiful and bring \$2.50 to \$3 per barrel. The Toronto fruit market is, if anything, a little firmer. Prices with one or two exceptions are about the same as last week. Apples being 15c. to 30c., pears 25c. to 75c., and peaches 20c. to 40c. per basket.

## Hay and Straw.

The hay crop this year has been harvested in good condition, but the yield will not be as large as last year. It is claimed that in Quebec the crop will be below a good average one. The Montreal market is firm at \$8 to \$9 for old No. 1 and \$5.25 to \$5.50 for clover. The English market is reported to be improving on foreign hay. On this market cars on track of baled hay are quoted at \$8 to \$8.50 and straw at \$4 to \$4.50 per ton. On the Toronto farmers' market old hay brings \$10 to \$11, new \$8 to \$9.50, sheaf straw \$6 to \$7, and loose straw \$4 to \$5 per ton.

## Cheese.

There is a regular boom on in dairy products just now, and there are good reasons for believing that it is not of a temporary character either. The cheese situation is just as strong if not stronger than ever. Though we have already sent out fully 150,000 boxes more than for the same time last year, yet there is no indication of stocks accumulating on either side of the Atlantic. During the week there has been a further advance of 2s., and at London, Eng. finest Canadian is now quoted at 50 to 51s., and 46 to 48s. for fine, with Bristol and Liverpool reported to be 1 to 2s. higher. The situation on this side is strong with sales reported at Montreal at 10¼ to 10¾c. for finest western, and 9½ to 10½c. for finest eastern. The make at many of the factories is reported to be falling off, though this is the usual thing at this season of the year. In some parts of Western Ontario, however, there has been a lot of dry weather, which has caused very large shrinkage in the supply of milk. On the local market during the week the ruling offers were 9½ to 10c., but factorymen were not inclined to sell at the former figure. At Brockville on Thursday sales were made at as high as 10½c. Factorymen are sold out pretty close, and can perhaps afford to wait awhile, still it

is not always the best policy to hold when such good prices are being offered.

## Butter.

The butter situation is strong and active with a still upward trend in prices. Some in the trade think that prices have about reached the top end that the British dealer will go elsewhere for his stock rather than follow the advance any further. There is a little indication of this in the improved inquiry in New York for American butter which can be had at a less price than exporters have to pay here. While this may be so there is evidently a greater increased demand in England for Canadian creamery, and this demand has spread to other than three or four places. The English market for Canadian creamery is greatly excited just now, and there has been an advance of 4s. to 5s. in cable quotations. The situation is remarkable considering the increased shipments, yet there is no great accumulation of stock and a good consumptive demand exists. Choice Canadian creamery has sold at 100 to 101s. during the week with some well-known fancy brands bringing 102 to 104s. The total shipments from Montreal this season so far show an increase of fully 90,000 as compared with the same period last year.

There has been a further advance of 1c. per lb. at Montreal, where choice to fancy brands are quoted at 20½ to 21c. with one exceptional lot sold at 21½c. As high as 21c. has been paid at the factories for fine lots. At these prices factory men should find no difficulty in disposing of the product. Good creamery is quoted here at 18 to 20c. for prints and 17 to 18c. for tubs. Choice dairy tubs bring 14 to 15c., and choice dairy rolls 15 to 16c. in large lots. On the Toronto farmers' market lb. rolls are quoted at 18 to 22c.

## Wool.

The market for Canadian fleece wool does not improve. Receipts have been pretty liberal here considering the low prices. Growers seem to feel as if they might let their output go first as last as there does not appear to be anything better in the near future. Prices here continue at 13c. to 14c. for fleece and 8c. per lb. for unwashed.

## Cattle.

There seems to be a general scarcity of really good beef cattle at the leading American markets, with an over supply of under-grades which are hard to dispose of. Really choice beeves fit for the export trade continue firm and in good demand. Cable reports at the end of the week were firm. On this market on Friday trade was fair with prices for good export cattle well maintained while those of inferior quality were slow of sale at a further decline of 10c. to 15c. per cwt. Butchers' cattle of nearly all descriptions were scarce, more particularly the better qualities of which there was not enough to supply the demand. Good butchers' cattle are wanted.

**Export Cattle.**—Choice loads of these sold at \$4.90 to \$5.12½ per cwt. while light ones brought \$4.25 to \$4.60 per cwt.

**Butchers' Cattle.**—Choice picked lots of these equal in quality to the best exporters, weighing 1,000 to 1,100 lbs. each, sold at \$4.40 to \$4.50 per cwt. Loads of good butchers' cattle brought \$3.80 to \$4.10, and medium butchers' mixed cows, heifers and steers, \$3.40 to \$3.65, and common butchers' cattle sold at \$3.12 to \$3.35 per cwt.

**Stockers and Feeders.**—There has been a little more life in the stocker and feeder market in Chicago of late. But few stockers were offered on Toronto market on Friday, with prices ranging from \$4.50 to \$2.75 for heifers and inferior steers; \$3 to \$3.25 for medium to good; and \$3.30 to \$3.40 per cwt. for choice picked lots. Light feeders

weighing 800 lbs., are worth \$3.40 to \$3.60, while those weighing 1,000 to 1,100 lbs., with good breeding, are worth from \$3.75 to \$4 per cwt.

*Calves.*—These have been in moderate supply at Buffalo of late. About fifty sold on Toronto market on Friday at \$4 to \$8 each.

*Milk Cows.*—Cows are worth from \$25 to \$45 each, but the bulk offered on Friday were only of inferior to medium quality.

#### Sheep and Lambs

There is a better enquiry at Chicago for feeding sheep and lambs. During the week there has been a firmer feeling in lambs. The demand at Buffalo for sheep and lambs has been fair. On this market on Friday there was a good demand for export sheep with prices firm at \$3.50 to \$3.75 per cwt. for the bulk of the ewes with a few choice picked lots selling at 10 to 15c. per cwt. higher. Bucks sold at \$2.75 to \$3 per cwt. Too many inferior lambs are being offered, some of which are hard to sell. Good lambs bring \$4 to \$4.75 per cwt. or \$3 to \$4 each.

#### Hogs

Prices for hogs continue firm. On Friday deliveries were fair and prices were \$5.50 per cwt. for select bacon hogs of good quality, weighing from 160 to 200 lbs. each, unfed and unmaturing off cars. Thick and light fats bring \$1.75 per cwt. Unculled carloads sold at \$5.20 to \$5.40 per cwt. The Montreal market is higher, sales having been made during the week at \$4.85 to \$5 per cwt. The English bacon trade continues healthy. The *Trade Bulletin's* cable of August 10th re Canadian bacon reads thus:

"At a further advance of 4 to 5s. the market is quiet, but as supplies of Canadian are light holders are not pushing sales.

# 800 SECOND-HAND AND NEW... BICYCLES

**FOR SALE  
AT FROM  
\$5 UPWARDS**

If you want but a single Bicycle it will pay you to send for our prices, while if you want a dozen we can quote you such prices as will surely induce you to buy of us. All dealers will tell you this is the dullest time of the whole year in the Bicycle trade, and we are determined to close out our stock, especially the second hand ones, at some price. Correspondence and visits solicited. Bicycles sent on receipt of \$1.00, subject to inspection before being paid for.

.. ADDRESS OR CALL ON ..

## Ellsworth Cycle Co.

209, 209½ and 211 YONGE ST.

LARGEST BICYCLE  
STORE IN CANADA

TORONTO, ONT.



## Threshermen Attention!

Call and see our Exhibition of THRESHING MACHINERY, PORTABLE and TRACTION ENGINES at the FALL FAIRS. We have something new to show you

**THE GEORGE WHITE & SONS CO. Limited, LONDON, ONT.**

ESTABLISHED 1877.

A. H. CAMPBELL, President.

R. H. TOMLINSON, Manager.

# British Canadian

HEAD OFFICE:

25 Adelaide Street East  
Toronto

LOAN AND INVESTMENT  
COMPANY, Limited

Capital Subscribed, \$2,000,000  
Assets - - - \$2,003,000

MAKES LOANS on all classes of Real Estate Securities PURCHASES MORTGAGES, Municipal Debentures, etc. ISSUES DEBENTURES. The Company also receives money on deposit, for which debentures are issued for three to five years, with interest coupons attached, payable at its banks free of expense. Clergymen, trustees, and others having money to invest will find these debentures a handy investment. Apply to the Manager.

A Few Desirable Improved Farms For Sale.

R. H. TOMLINSON

## FARM LOANS CREDIT FONCIER F. C.

This Company has a large amount of money to lend on improved farms at low rates. Correspondence is invited from farmers who wish to buy more land, to improve their properties, or to save money by reducing interest.

W. E. LONG, Manager,  
28 Wellington St. East.  
TORONTO.

## Feeds and Feeding

A book for Farmers and Stockmen. Price, \$2. Sent postpaid on receipt of price. Address

Farming  
TORONTO

## ALEXANDRA AND MÉLOTTE CREAM SEPARATORS

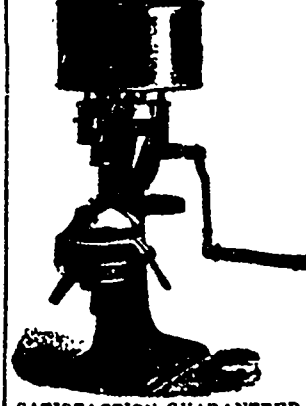
Have beaten the "Alpha Laval" eight times and all other competitors in public working trials. Sent out on free trial and guaranteed to give perfect satisfaction. Come and see these machines working at the TORONTO EXPOSITION.

For full particulars apply to

R. A. LISTER & CO., Limited

579 & 581 St. Paul St. MONTREAL, QUE.

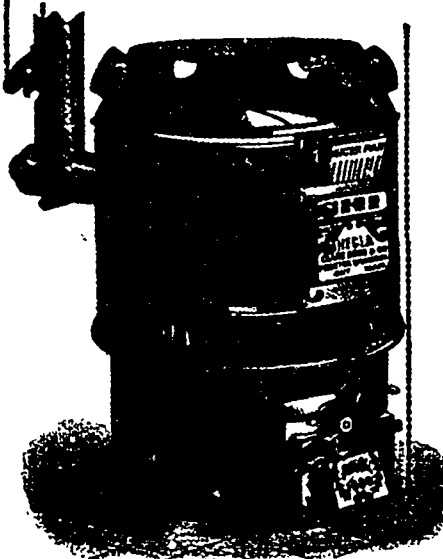
SENT ON FREE TRIAL



SATISFACTION GUARANTEED

## Let Us Heat Your House...

WITH OUR



## Hecla Coal or Wood Furnace

in which we have incorporated all the latest improvements in Furnace construction.

The Dome and Radiator are combined and constructed with our Patent Fused Joint, making it absolutely gas-tight.

It is fitted with a large double-feed door, making it suitable for large, rough wood.

The fire-pot is in two pieces, with a flanged extended surface, which keeps it from warping or burning out.

The Hecla works perfectly with any kind of fuel: hard coal, wood and soft coal, for which we provide a Hot Blast attachment which ensures perfect combustion.

Send a rough sketch of the building you want heated and we will give you estimates and advice.

We Manufacture all kinds of  
Furnaces, Stoves and Hollowware.

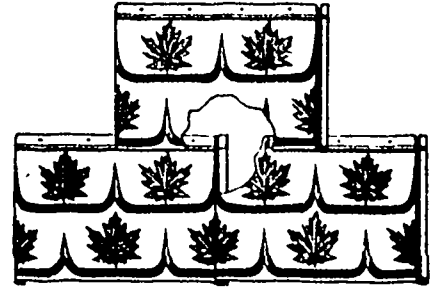
WINNIPEG,  
MAN.

CLARE BROS. & CO.

PRESTON,  
ONT.

## IF PEOPLE ONLY KNEW

the advantages of using metal roofing, constructed on our patent "SAFE-LOCK" principles, they would not accept a substitute.



### OUR "SAFE-LOCK" SHINGLES

interlock each other on all four sides—leaving no openings for snow or rain to get in. They are easily put on by anyone—are practically fire and lightning proof and give a building a neat, finished appearance. We can tell you more. Ask for free catalogue and samples.

The Metal Shingle and Siding Co.  
(Limited)

PRESTON. - ONT.

POTATOES = =  
CABBAGE = =  
= = = CARROTS

Potato disease may generally be checked or prevented by a judicious use of salt, which also acts as a solvent of potash compounds, and keeps off the grubs. Cabbages and carrots require 300 to 700 lbs. salt per acre in proportion to the lightness of the soil. Kohl rabi requires similar quantities.

R. & J. RANSFORD,  
Clinton, Ont.

## Lump Jaw

If it 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 barn.

WE ABSOLUTELY GUARANTEE  
TO CURE ALL CASES.

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

# Blood Relationship

Prompts you to buy from a member of your own family, if he sells goods that you desire to purchase, in preference to his competitors with whom you are not connected.

# Massey-Harris Farm Implements



are made and sold by your own countrymen, and the money you pay for same benefits you and your country.

Therefore, why buy foreign made machines?

## FARMERS !

Test the use of

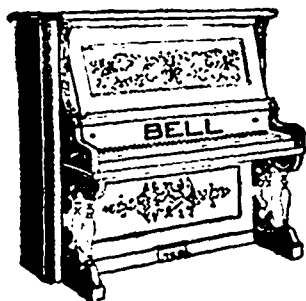
## Lime as a Fertilizer

for yourselves, by using thirty bushels to an acre on your summer fallow as a top dressing. Harrow it in with the seed.

The increase in yield and improvement of quality is astonishing.

**DON'T DELAY**

BUY FROM THE NEAREST LIME MERCHANT.



## BELL PIANOS AND ORGANS

BUILT TO LAST A LIFETIME

SEND FOR DESCRIPTIVE CATALOGUE (NO. 41) TO

The BELL ORGAN AND PIANO Co., Limited, Guelph, Ontario.

LARGEST MAKERS IN CANADA.

## FREEMAN'S THREE-PLY READY ROOFING

... EASILY APPLIED ...

Great Reduction in Prices. Send for Price List, etc

Parliament Buildings, Toronto, October 20th, 1898.

THE W. A. FREEMAN CO., 57 Ferguson Ave., South, Hamilton, Ontario:

Gentlemen,—Nine years ago I purchased from you a large quantity of material known as Freeman's Ready Roofing, with which I roofed the north half of my barn and two sheds, 66 x 20 each. This year we re-painted this roof and found it in excellent condition. A shingle roof put on part of the barns two years before was badly in need of repair. I shall hereafter use your ready roofing on all my out-buildings.

Yours truly,  
(Signed) F. W. HODSON

## 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 WIND MOTOR CO., Limited  
Woodstock, Ont.



## Persicatic 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.

