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# FARMING

November 1st, 1898.

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Every Machine guaranteed to give satisfaction. is an easy seller.

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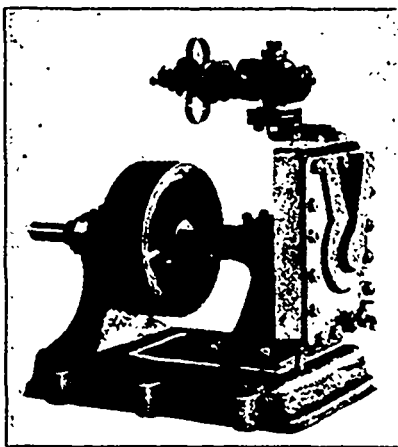
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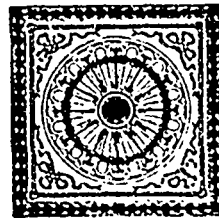
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I have on hand the best young Clydesdale Horses and Mares on this continent Bred from the well-known sires, Prince of Wales, Darnley, Macgregor, Energy, Lord Montrose, The Ruler, Carruchan Stamp, Knight Errant, and other celebrities.



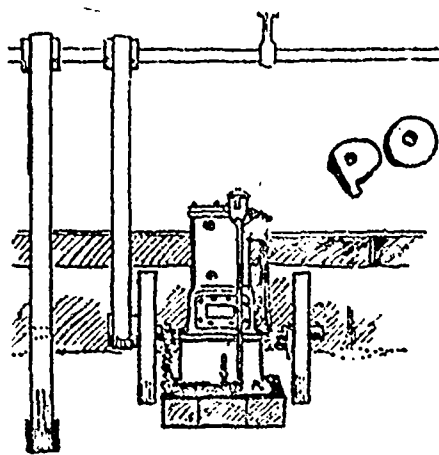
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**SHORTHORNS.** Choice young Heifers and Bulls by the celebrated Cruickshank bulls, Northern Light and Vice-Consul.

My stock in the above lines were very successful at all the large shows last year. Call and examine stock before purchasing elsewhere. Terms reasonable.

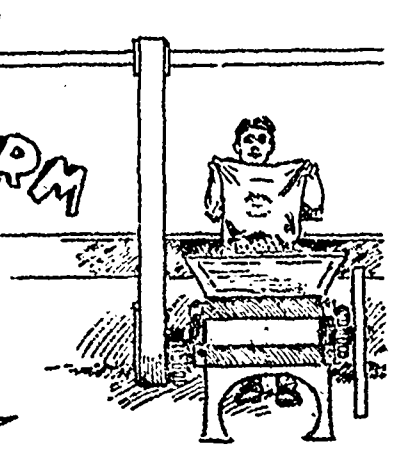


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# POWER ON THE FARM

## NORTHEY GASOLINE ENGINE



**T**HE farmer cannot afford to lose money any more than the business man. He has far more to lose by clinging to old-fashioned, labor-wasting methods than any business man. He cannot grasp the splendid possibilities of an agricultural year like the present, unless he's abreast of the times, and backs himself up with work-saving machinery and appliances. The Northey Gasoline Engine is the ideal motor power on the farm, will easily run a cream-separator, grain-winner, straw-cutter, root or grain-crusher, etc.—two or three at once if necessary—and needs no looking after for hours at a time. Always ready for work—not useless half the time like the windmill. Can be readily moved about from place to place; saves a hired man's time; costs but 1½ cents per horse power per hour, and pays for itself inside of two years. Sold on the most liberal terms. Let us send you our illustrated booklet—it will give you a better idea of its working possibilities.

If there's any information you would like further—or any one or two points you're not sure of—write us, and we'll be glad to explain fully.

**Northey Mfg. Co., Limited.** B 1008 King St. Subway **Toronto**

### English Advertisements.

#### Henry Dudding

Riby Grove, Great Grimsby, Lincolnshire, England

Has always for inspection, and sale, the largest flock of pure Lincoln Longwool Sheep in the county, including many prize-winners, having taken prizes for many years at the Royal and other shows for both Rams and Ewes, including champion medals at both the Paris Exhibitions, Vienna, Amsterdam, Canada, Australia, New Zealand, and all the leading prizes at the Chicago Exposition; also the first for the best collection of Lincoln fleeces of wool at the Royal Windsor Show and the Lincolnshire Show, which proves the character of this flock. The sheep are famous for their great size and one hundred and twenty-five years' good breeding. At Lincoln Ram Sale, 1896, this flock's consignment not only made the highest individual average of any consignor, but also made an average price exceeding that made by any other breed in England, i.e., \$5.12 per head, the first six making an average of \$8.40. The sheep for sale this year are all sired by noted rams, and are fully equal to their predecessors in every way.

Rail Stations: Stallingboro, 3 miles distant, and Great Grimsby 7 miles.  
Telegrams: "Dudding, Keelby, England."

#### S. E. Dean & Sons

Dowsby Hall, Folkingham, Lincolnshire, England

Have always for inspection and sale fine specimens from their FLOCK of PURE LINCOLN SHEEP (No. 47 in Lincoln Flock Book), including SHEARLING EWES and RAMS, also RAM and EWE LAMBS. Sheep from this flock have been exported to nearly all parts of the world, where their great substance and large fleeces of beautiful quality wool give the greatest satisfaction to purchasers. Early in 1894, about twenty Rams from this flock were sold by public auction in Buenos Ayres, and realized the highest average ever obtained for Ram Hogs exported from England. The flock is most carefully bred, and none but the very best sires used. Messrs. Dean also send out selections from their flock to purchasers who are unable to come to England to inspect them, and they have given great satisfaction. Messrs. Dean have also for sale purebred Bates SHORTHORNS and pure LINCOLN RED SHORTHORNS.

Dowsby Hall is one mile from Rippingale Station, on the Great Northern Railway, Bourne and Seaforth Branch.

TELEGRAM: DEAN, BIPPINGALE.

## DENTONIA PARK FARM

EAST TORONTO (Coleman P.O.)

W. E. H. MASSEY, Proprietor.

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

**Dentonia Poultry Yards** S. C. Brown Leghorn and Light Brahma Cockerels for sale.

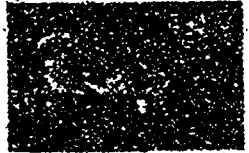
**Dentonia Trout Ponds** 100,000 healthy fry ready for delivery this fall. Price reasonable. Trout Eggs in season. Market Trout supplied on short notice.

#### J. E. Casswell

Stock Book No. 46

Laughton, Folkingham, Lincolnshire, Eng. This well-known stock has been established more than 100 years, and the pedigreed Lincoln long-wooled rams and ewes have been noted throughout the Colonies and South America for their "size, symmetry, and lustrous wool." Ewes from this flock have always passed from father to son, and have never been offered for sale. Mr. J. E. Casswell's grandfather, Mr. G. Casswell, of Laughton, was the first breeder in the county to let his rams by public auction. At Lincoln Ram Fair, 1895 and 1897, Mr. J. E. Casswell made the highest average for 20 rams. The rams of 1896 were all sold privately for export. During the last two years the following among other noted sires have been used: Bekewell Comptroller and Baron Rigby, for each of which very high prices have been realized; Laughton Major, Laughton Style, Laughton Choice, No. 3; Azby George, 60 guineas; Judge, 95 guineas; his son, Laughton Justice Lincoln, 100 guineas; Lincoln, 122 guineas; Welcott, 70 guineas; Lincoln, 72 guineas; and his sire, Laughton Riby. Shire horses, Shorthorn bulls, and Dorking fowls are also bred. Inspection and correspondence invited. N.B.—Laughton Choice won and at the Royal and a pen of 5 theaves by him won 1st at Royal Doncaster. Visitors met by appointment. TELEGRAMS: Casswell, Folkingham, England.

#### HICKORY HILL STOCK FARM



3 Jersey Bull calves from dams that have won milk tests. Great Fares as if sold before winter sets in. Write or come and see.

NAAMAN DYMONT, Clappison's Corners, Ont.

#### IMPORTED OXFORD DOWN

LAMBS—Canadian bred yearling and ram lambs. Yearling ewes and ewe lambs for sale, reasonable.

HENRY ARKELL, Arkell, Ont.

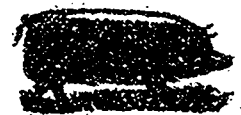
#### JAS. S. HENDERSON, BOOKTOWN, Ont.

OFFERS FOR SALE at reasonable prices a number of extra fine BRONZE TURKEYS, Barred Plymouth Rock Cockerels, two Silver Laced Wyandotte Cockerels, and one Pouter. All bred from high-class stock.

#### A. ELLIOTT, Pond Mills, Ont.

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

#### COLLSRING HERD TANNORNS.



One June Bess, two Bess and two Snow the lot of August, extra fine, six Sows and three Boars, brothers and sisters of Blain's Sorbonne, They go at rock bottom prices.

NORMAN M. BLAIN, St. George, Ont.

When replying to advertisements please mention FARMING.

# FARMING

Vol. XVI.

NOVEMBER 1st, 1898.

No. 9.

## Agricultural News and Comments

Ex-Gov Hoard says that the banker, the merchant, and the lawyer, deal only with laws that man has made, but the farmer deals with God's laws. However, the laws made by man are very often a stumbling-block to the farmer, who very often is tripped up by them.

The Ontario Department of Agriculture has received some samples of grain, roots, etc., from the district lying between Lakes Nipissing and Tamagamingue, which indicate that that section of the province is likely to prove well adapted for mixed agriculture. This stretch of land extends into Quebec, where it has been found to be of the same fertile character.

There seems to be conflicting reports regarding the output of wheat in Manitoba. One authority states that it will reach 40,000,000 bushels, while another equally as good states that 31,500,000 bushels is a good estimate. About twenty per cent. of the crop will be number one hard. It is also estimated that about twenty per cent. of the crop will be damaged by rain.

In England one-third of the cultivable land is under crop; in Ireland one-sixth; in Holland more than one-half; in Denmark one-half, and in Belgium seven-eighths, which is five times the amount in Ireland. In Belgium sixty seven per cent. of the entire area of the country is under crops. In those countries where a large portion of the land is under crop the size of the farm is very small.

A doctor of Jersey City claims to have found a tapeworm in an egg which was served for his breakfast. The egg had been cracked in boiling, and, when he took it from the dish, he saw what seemed to be a worm, protruding from the crack. This worm was found to be coiled up, and when stretched out proved to be four feet long. The white and yolk of the egg were in a perfect condition, the worm occupying the large end of the egg, in which the air is stored.

Reports from some of the wheat-growing sections in Ontario indicate a very rank growth. So much so is this the case that there is a danger of there being too much growth before the winter sets in. The fall wheat sown in August is likely to suffer the most, as the recent rains have caused a very rapid growth of the plant, and in some cases the wheat stock is beginning to shoot out. In cases of this kind it is considered advisable to pasture the crop and keep the growth down.

The exports of potatoes from Prince Edward Island once reached one million bushels annually. Last year it had fallen to 150,000 bushels, and it is expected that the crop will be even less this year. Last year the value of the potato exports was \$37,000, while the dairy exports were five times that amount. The value of the exports of eggs in 1897 were \$62,550; horses \$23,500; cattle \$46,500 and sheep and lambs \$27,700. These latter seem to be taking the place of potatoes.

In Ohio Canadian peas and oats are sown on corn stubble and allowed to grow for both mulch and protection. As the peas are legumes, they are expected to leave by their decay some protein in the soil for future crops. Another plan that is being tried is to sow peas and oats

after the crop is off and to turn them under oats and all as soon as the peas are ripe. The peas grow up a second time and this crop is allowed to fall on the land so as to increase the humus the next year.

It is said that of the 1,500,000,000 human beings now living on the earth 90 per cent. of them live directly from the soil. If they were all brought to the United States there would be 1,000 upon each square mile, 900 of whom would be farmers. If this be true, is there anyone who will say that agriculture is not the life-blood of all commerce and manufacturing interests? In this country, especially, the products annually produced on our farms sustain not only farming but every other business.

It is claimed that fence posts will last longer if the top end of the timber as it grew in the tree is placed downwards. The reason for this is that the sap of the wood rises in the tree from the ground and hence the absorbent function of the timber has this course, and consequently a post set with the bottom, in regard to the tree, in the ground will absorb moisture through the cells, while one set with the top (as to the tree) down is not absorbent and therefore there will be no rotting of the wood just above the surface of the ground.

It is almost impossible to over-exaggerate the omnivorous qualities of the ostrich. Oranges, small turtles, fowls, kittens and bones are swallowed with ease. A traveller recently returned from South Africa tells of an ostrich swallowing a box of peaches, two or three tennis balls, several yards of fencing wire, and half-a-dozen cartridges. Most frequently the ostrich does not swallow each dainty separately, but collects several in its throat, and then disposes of them all at once. An ostrich egg weighs about three pounds, and is considered equal in amount to twenty-four hens' eggs.

The continual tampering with grain standards, such as lowering them one season and raising them the next, is injurious to our interests in the foreign markets. For instance, the standard for oats has been raised this year owing to the extremely white color of the Ontario oats, so that the bulk of the oats, which show a better quality than those of last year, now inspect No. 3, though they are a better No. 2 than those which inspected No. 2 last season. This condition of things should be remedied. The present policy of unnecessarily changing the standards is causing no end of trouble.

For the fiscal year ending June 30th, 1898, the net exports of wheat from Canada were 19,500,320 bushels, and of flour 5,463,549 bbls. The total export of wheat and flour in bushels equalled 24,963,869. For the year ending June 30th, 1897, the net exports of wheat were 7,296,199 bushels, and of flour 396,967 barrels, which together are equal to 9,082,550 bushels of wheat. The net exports of oats for the year ending June 30th, 1898, were 9,701,487 bushels, and of oatmeal 157,482 barrels. For the year ending June 30th, 1897, the net exports of oats were 5,456,021 bushels, and of oatmeal 152,509 barrels.

In branding cattle it is better to put the brand on the neck rather than on the rump, as the hide will be of more value. In Australia hides of cattle branded on the neck will realize 25 6d. to 3s. more than those branded on the rump.

## The Home Market for Cheese

It is conceded by everyone closely identified with the Canadian dairy trade that we have about reached the maximum quantity in regard to our export trade in cheese. We are now sending to Great Britain annually about \$15,000,000 worth of cheese. The export market has now reached such a stage that if we increase to any great extent the quantity of cheese we put upon that market a reduction in prices is sure to follow. This is something that the majority of our dairymen fully realize, and consequently many of them are now turning their attention to winter dairying as a means of curtailing the make of cheese, and of relieving the situation in the early spring and late fall.

Though, as we have pointed out, it is quite evident that we cannot increase our export trade in cheese, there is room for greatly increasing the home demand for cheese. For the great cheese-producing country such as we claim to be, we are, perhaps, the poorest cheese-eaters to be found anywhere. If Great Britain only consumed the same amount of cheese per capita as we do, Canadians would have to go out of the business of making cheese, as there would be no market for the product. Compared with Great Britain we are in no sense of the term cheese-eaters. The average Canadian eats, perhaps, a pound of cheese every year, where he should eat at least five pounds, and could increase the amount to ten pounds without any great effort. A well-made, well-cured cheese is one of the most wholesome of foods, and where so many of our people work on the farm, or in the factory, there should be a greater demand than there is for good, wholesome, cheddar cheese.

How this condition of things is to be remedied is something that every dairyman should consider. In a large measure the dairymen have themselves to blame for it. No definite, persistent effort has been made to develop the home market or to create a demand among Canadians for their own cheese. As a rule, the cheese that is sent to the cities and towns is of an inferior character, and the consumer in this country, instead of getting the best quality, has to be content with a second grade and, in many cases, a third and fourth grade, of cheese. Is it to be expected that a growing home demand for our cheese can be developed under such conditions? We think not. To develop this trade and to cause our people to eat more cheese we must supply them with the best quality. When this is done the taste for cheese eating will grow and a good demand will be created.

Then, if the same method were adopted in the country the farmers who supply the milk might be educated to eat cheese. It is only too true that in a great many cases the culls of the factory are cut up for their patrons, and, instead of getting a quality of cheese that would induce him to send to the factory for more, the farmer gets an inferior, half-cured cheese that makes him wonder what the Englishman can see in Canadian cheese anyhow. Why, then, is it not possible for each cheese factory to create a good demand for a large share of its product at its very doors? The farmer who sends milk is surely entitled to receive as good a quality of cheese for his own use as is sent to the consumer in Great Britain.

One of the drawbacks to the enlargement of the home market for cheese is the high price which retailers as a rule in our towns and cities charge for cheese. Not long ago we bought a piece of cheese for which we paid fourteen cents per pound, and at the time when that cheese left the factory it could not possibly have been worth more than eight cents per pound. This seems to us to be an exorbitant charge. If dealers would sell cheese at a reasonable profit the home market could be greatly improved. We know of a case in one of our western cities where a produce dealer resolved to sell cheese at a reasonable profit. He did so and was able to dispose of ten cheeses where he could sell one at the ordinary retailer's profit and make more money in the bargain. It is said, and we have no reason to doubt the statement, that Canadian cheese can be bought cheaper at a retailer's in Great Britain than at a retailer's in Toronto or any other Canadian city. So long

as this and the other condition of things which we have alluded to exist, it will be difficult to make our home market for cheese what it ought to be. The whole question is of vital interest to Canadian dairymen and furnishes a means of relieving to a large extent the over-crowded export market and of bringing better prices.

## The World's Wheat Crop

Under date September 20th the *Liverpool Corn Trade News* submits a detailed exhibit of wheat production in the several countries of the world yearly for 1891 to 1898, inclusive, in bushels, from which the *Cincinnati Price Current* copies the following estimates for 1898, and figures for 1897:

	1898.	1897.
France.....	352,000,000	248,000,000
Russia proper.....	240,000,000	237,000,000
Poland.....	15,000,000	18,000,000
Caucasia.....	40,000,000	30,000,000
Hungary.....	120,000,000	93,000,000
Austria.....	40,000,000	32,000,000
Croatia and Slavonia.....	5,000,000	2,000,000
Herzegovina and Bosnia.....	2,500,000	2,000,000
Italy.....	128,000,000	88,000,000
Germany.....	100,000,000	107,000,000
Spain.....	90,000,000	100,000,000
Portugal.....	8,000,000	10,000,000
Roumania.....	58,000,000	35,000,000
Bulgaria.....	35,000,000	25,000,000
Eastern Rumelia.....	6,000,000	3,000,000
Servia.....	11,000,000	7,000,000
Turkey in Europe.....	22,000,000	16,000,000
Greece.....	4,000,000	3,000,000
United Kingdom.....	65,000,000	56,000,000
Belgium.....	20,000,000	17,000,000
Holland.....	6,000,000	5,000,000
Switzerland.....	5,000,000	4,000,000
Sweden.....	3,600,000	4,400,000
Denmark.....	4,000,000	3,300,000
Norway.....	400,000	400,000
Cyprus, Malta, etc.....	2,500,000	2,400,000
<b>Total Europe.....</b>	<b>1,384,000,000</b>	<b>1,148,500,000</b>
United States of America.....	650,000,000	590,000,000
Canada.....	63,000,000	52,000,000
Mexico.....	16,000,000	15,000,000
Argentina.....	60,000,000	50,000,000
Chili.....	18,000,000	14,000,000
Uruguay.....	6,000,000	4,000,000
<b>Total America.....</b>	<b>813,000,000</b>	<b>725,000,000</b>
India.....	240,000,000	248,000,000
Turkey in Asia.....	40,000,000	50,000,000
Persia.....	18,000,000	20,000,000
Japan.....	14,000,000	14,000,000
<b>Total Asia.....</b>	<b>212,000,000</b>	<b>332,000,000</b>
Algeria.....	24,000,000	16,000,000
Tunis.....	8,000,000	5,000,000
Egypt.....	8,000,000	6,000,000
The Cape.....	4,000,000	4,000,000
<b>Total Africa.....</b>	<b>44,000,000</b>	<b>31,000,000</b>
Victoria.....	15,000,000	10,400,000
South Australia.....	14,000,000	4,000,000
New Zealand.....	8,000,000	6,800,000
New South Wales.....	14,000,000	10,500,000
Tasmania.....	1,200,000	1,000,000
West Australia.....	800,000	500,000
Queensland.....	1,000,000	1,000,000
<b>Total Australia.....</b>	<b>54,000,000</b>	<b>34,200,000</b>
<b>World's total.....</b>	<b>2,607,000,000</b>	<b>2,270,700,000</b>

Mr. Broomhall states that official data are used except in the instance of the United States. Also, that the 1898 estimates for Australasia, Argentina and Uruguay are for the crop to be harvested in December, 1898; for Chili, to be harvested in January, 1899; for India, to be harvested in March, 1899.

Totals for the several geographical divisions and world's aggregate for eight years compare as follows:

	Europe.	All America.	Asia.
1891.....	1,202,700,000	813,280,000	284,700,000
1892.....	1,358,900,000	719,700,000	342,900,000
1893.....	1,407,800,000	644,800,000	333,000,000
1894.....	1,497,900,000	670,800,000	336,000,000
1895.....	1,442,150,000	621,200,000	289,000,000
1896.....	1,493,960,000	564,100,000	258,000,000
1897.....	1,148,500,000	725,000,000	332,000,000
1898.....	1,384,000,000	813,000,000	312,000,000
Av. 8 y'rs	1,373,240,000	696,475,000	310,950,000

	Africa.	Australasia	World's total.
1891.....	48,500,000	35,859,000	2,385,100,000
1892.....	42,700,000	41,158,000	2,505,300,000
1893.....	38,800,000	42,032,000	2,526,400,000
1894.....	52,600,000	31,624,000	2,588,900,000
1895.....	42,700,000	25,111,000	2,420,100,000
1896.....	32,400,000	26,150,000	2,364,500,000
1897.....	31,000,000	34,200,000	2,270,700,000
1898.....	44,000,000	54,000,000	2,607,000,000
Av. 8 years	41,587,000	36,267,000	2,458,500,000

### The Threshing Problem

The *Waterloo County Chronicle*, in commenting upon our remarks in a recent issue of FARMING on the threshing problem, pertinently remarks :

"The travelling threshing machine is a very effective means for distributing wild oat seed through the country. These grains, because of their peculiar nature, adhere to the machine more than any other kind of seed, and therefore are easily carried from one farm to another. A good way to avoid all these difficulties is for the farmer to have his own threshing machine, and to do his own threshing whenever he wishes, as James Russell down the gravel does. There will be no danger then of carrying bad seed from one farm to another, and the farmer will save money and precious time by not having to send help to assist his neighbor in threshing when that help is needed at home."

The more we look at this problem the more we are convinced that the best way of solving it is for every farmer to be his own thresher. With an ordinary tread power or some similar cheap method of getting power, every farmer can with a small thresher, and with little more than the ordinary help on the farm, do his own threshing, and make money by so doing. As is pointed out above, there will be no danger of having wild oats or other weeds brought onto the farm by the visiting threshing machine, and the farmer will not have to spend half the fall, when the help is needed at home, in helping his neighbors to thresh. Besides he can get his own threshing done when he wants to, and can do it on wet days when outside work cannot be done. Of course we recognize that there may be a difference of opinion in regard to this, and for this reason would like to hear from those who have tried both methods.

### Corn Feeding and the Bacon Trade

During an interview at Montreal, a few weeks ago, Prof. Robertson stated that he heard a great deal of complaint, when in Great Britain the past summer, about the large production of Canadian bacon which was classed as soft. The importers, he said, blamed it on an excessive feeding of Indian corn, which they fear is becoming so common as to endanger the good reputation, quality, and place which the Canadian product has won. The finest Canadian bacon is selling at from thirty to sixty per cent. higher than the United States bacon in the London, Liverpool, Manchester, and Glasgow markets. This difference in price cannot be maintained if the Canadian farmers feed their hogs corn as the Americans do.

A word to the wise should be sufficient. If the feeding of corn to bacon hogs is going to injure the quality of Canadian bacon and cause it to bring a price in the British market only equal to that obtained for United States bacon, which, as shown above, is considerably less than that obtained for the highest quality of Canadian bacon, it

should not require much urging to induce farmers to discontinue the practice. Canada is essentially not a corn-growing country like the Western States, and other foods suitable for making the best quality of bacon can be grown just as cheaply in all parts of the Dominion as corn, and there is, therefore, no necessity for our farmers to go extensively into corn-growing for hog-feeding purposes. It will pay better to put the corn into the silo, or to feed it to other animals on the farm, rather than to hogs destined for bacon-producing purposes.

### Little Things Count

Little things count in farming as well as in any other business. The farmer who expects to make a success of his calling by not giving attention to details and by making every little item count will be greatly disappointed. He will find at the end of the year that there has been a leakage somewhere and won't know where it is.

It is related of a rich farmer out West that he never passed a lock of wool which had been pulled from a sheep's fleece by catching on a sliver in the fence or the rough bark of a tree. The piece of wool would be picked up and put in his pocket till he went to the house, where it would be thrown into a box in the wool room. This man was always picking up and saving nails, scraps of iron, loose bolts and nuts and other odds and ends such as may be found on every farm, large or small. He was by no means a stingy man, for he lived in a magnificent house and was liberal in a great many ways.

It is not to be supposed, however, that he became rich by saving bits of wool or pieces of scrap iron. But this propensity to keep things picked up was carried into all his work, and made him thorough in everything he did. His care about small matters was an indication of his careful way of looking after large things. His barns never had doors hanging by one hinge, the tires on his vehicles never got loose and rattled longer than it would take him to get to the blacksmith shop. He did not let his machinery get to rattling and keep on using it till it broke down completely. His motto was one that taught the advisability of keeping everything in good order and in the proper place. A leak in a roof was mended and no hay or grain was spoiled. A broken board in the fence was replaced and his crops were not destroyed by his stock. *He attended to the little things and they multiplied into a fortune.*

### Benzine for Parasites in Lambs

Benzine is recommended for treating lambs affected with parasites or stomach worms of all kinds. The method of giving it is as follows: steep some flaxseed in hot water for a few minutes, then cool the infusion till it is of the consistency of quite a thin jelly. Pour about four ounces of this into a bottle and add a teaspoonful of the benzine. Shake well and give it to the lamb. Lambs do not dislike this mixture and drench easily.

An American breeder who tried this remedy writes to *The Breeder Gazette* as follows:

"The effects seem hardly noticeable; there is a trifle of drowsiness for a few minutes; that is all that I could see. They are all as well as before being dosed. After three doses given in three days the lambs seemed to me to present a wonderful improvement. They rounded out, ate greedily, their skins surely looked better, and I feel quite sure that they are vastly better. One in particular that would gnaw bark and earth, a good indication of stomach-worms, does not now have that habit. Not one lamb was injured in the least by the treatment. To some large lambs I gave a double dose, a dessert spoonful, with no apparent ill-effect. I am inclined to think that the teaspoonful dose is too small for a lamb that will weigh seventy-five pounds. To a sucking lamb of forty-five days' age I gave a full spoonful, and no ill effects appeared.

This is a simple remedy, and if it will do what the sheep breeder above mentioned says every farmer who keeps

sheep should try it. The remedy is a safe one, and does not cost much. Five cents' worth of benzine will dose a hundred lambs. If flax seed is not at hand linseed meal will answer.

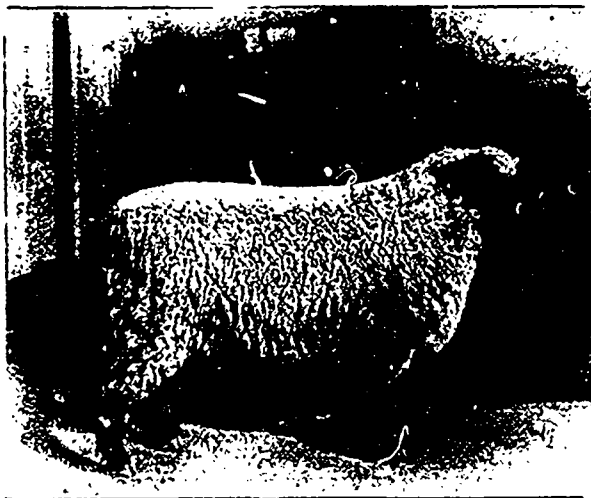
### Exhibit of Dairy Products

An exhibit of cheese and butter will be held in connection with the annual convention of the Cheese and Butter Makers' Association, at Listowel, on February 1st and 2nd next. One hundred and fifty dollars will be given in prizes, and competition will be open only to members. The following is a summary of the classes and sections: Class I., sec. 1, one September cheese, white; sec. 2, one September cheese, colored. Class II., sec. 1, one package (56 lbs.) of winter creamery butter; sec. 2, ten 1-lb. prints of winter creamery butter. Further particulars regarding the prize list may be had by applying to W. W. Brown, Attercliffe Station, Ont.

It is the intention of the association to purchase the cheese scoring the highest number of points and cut it up for distribution among those at the meeting, and also to have the judge give an address on the qualities of fine cheese. We would suggest that the cheese scoring the lowest number of points be also cut up, so that the good and the bad may be compared.

### O. A. C. Students Win in the Judging Live Stock Contest at Omaha

At the Trans Mississippi Fair, which has been in progress at Omaha for the past six months, Messrs. Clay, Robinson & Co., of the Union Stock Yards, Chicago, offered \$250 in cash prizes for an inter collegiate competition in live stock judging. The contest consisted in judging cattle, sheep, and swine, and was open to all students of American Agricultural colleges. There were seventeen competitors in all from five different state colleges. The representatives of the Iowa Agricultural College carried off the three prizes of \$125, \$75, and \$50, respectively, and two out of the three (the first and third) were won by ex-students of the Ontario Agricultural College: J. H. Grisdale, of Russell County, Ontario, who won the first, and W. J. Kennedy, of the same county, who won the third. These students



Oxfordshire Down ram, a leading prize-winner at the Toronto and London fairs, 1898. The property of Small Evans, Gourrock, Ont.

completed a two years' course at Guelph on June 30th last and went to Iowa for further special work about six weeks ago. The credit, therefore, which goes directly to the Iowa college is really due to the Ontario Agricultural College and is an additional proof of the excellent training, which students at that institution receive in judging live stock as well as in other branches of farm work.

### Baby Heifer Beef in the United States

On the American markets heifers run from twenty-five cents per one hundred pounds to one cent per pound less than steers for beef. While a fine straight heifer makes as nice meat as a steer, butchers claim that they will not dress out as much as a steer. Spayed heifers have been known to sell equal to steers in Kansas City. In the older or mature animal the steer is the best from both the feeder's and butcher's standpoint. But with the early maturing and quick growing type of beef animals, which are becoming more popular in the Middle Western States, the baby heifer beef animal is considered to be equal to the steer from both the producer's and consumer's standpoint. With this tendency to make baby beef, the difference between the prices of heifer and steer beef is gradually growing smaller.

A writer in *The Rural New Yorker* states that baby beef is what the market wants, and that he can make more out of this class of beef than matured beef. He goes on to give his method of raising baby beef, as follows: "We aim to have our calves come in February and March; by so doing the cows do not require such heavy feeding during the winter. After they drop their calves, we feed all the good nutritious food they will eat until grass comes. When they go on grass the calves are at such an age that they will stand pushing. As soon as they will eat we begin feeding them bran, shelled corn, oats, etc., and by the time they are five or six months old they are weaned, and given all the grass, corn and bran they will eat. By pushing them from start to finish they will weigh 1,000 pounds at one year of age, and the butchers here (Ohio) are anxious for them at four and one-half cents per pound." It is claimed that up to the age of eighteen to twenty-four months the heifer is the more profitable feeder. One difficulty feeders have is in securing the right kind of heifer for the purpose.

### Small Pig Houses

Some swine raisers prefer a small pig house to a large one. In addition to the expense it is claimed that a large piggery is hard to keep clean and that in case of disease it is very hard to thoroughly disinfect a large building. It is also claimed that air, sunshine, rain, etc., are the best disinfectants that can be found. However the large pig pen may be of advantage where the winters are long and severe, such as we sometimes have in this country.

An Ohio farmer writing in *The Rural New Yorker* states that a convenient size for a small pig house is six feet square. The sills should be oak or other durable wood of 2 x 6 or 2 x 8 inch stuff. The rafters of 2 x 4 inch material are cut five feet long, three on a side. The rafters are fastened direct to the sills so that the structure has the appearance of a roof set on the ground. This roof can be made of plank and the joints carefully covered with strips. The ends, excepting the doorway, should be of matched lumber. The frame should be made solid and all material used should be as tight as possible, excepting the sills, so as to make the structure easy to move round. The house should be made as tight as possible, as all the air that will be needed can come through the doorway. The best door is a fertilizer sack or something of that kind fastened over a doorway and allowed to hang over it. It is only in extreme cold weather that any door is needed. The house should be set with the doorway in the direction from which comes the least wind. If the ground is dry no floor is needed, but if wet and muddy a plank floor should be put in. One great advantage of these pens is that they can be moved around easily and easily disinfected if disease gets into the herd. The estimated cost of such a pen is about \$5.00.

### The Brightest, Newest and Spiciest

To our sanctum, comes weekly, *FARMING*, the brightest, newest and spiciest farm journal that it is our privilege to read. Last week's copy was alone worth the price of a year's subscription. We don't know of a farm journal so suitable to the wants of the times as this.—*Hastings Star*.

## The Condition of Agriculture in Prince Edward Island

The harvest is past and the summer ended on the Island. The farmer is not by any means jubilant over the ingathering. Hay was good, although hard to make on account of the showery weather. It was got under cover with difficulty in fairly good condition.

The wheat crop was badly scourged with rust, many of the fields were scarcely worth harvesting. Even those varieties usually considered rust-proof, notably the White Russian, will scarcely yield half the return of other years.

Oats have also been more or less blighted, but not to the same extent as wheat. In exposed situations, along the coast and near the shores of bays and tidal rivers, the straw turned black, got broken down and ceased to fill early in August. Many of those fields were cut and raked up for cattle, feed being utterly worthless as to grain product. On inland farms the visitation was not so disastrous, and many of the farmers are thankful for a fair crop of this grain.

Wet seasons and bad potato years are synonymous terms with us; the present year confirms the rule. Potato digging, which usually begins about the first week in October, is now pretty well advanced. Many farmers have the crop cellared and some shipping done, so that the average return can be approximately estimated.

Fifty to one hundred bushels per acre of small stunted tubers are reported from several farms here at New Perth, where the average yield in good seasons rated at two hundred bushels per acre or thereabout.

Turnips and other root crops are still mostly in the ground. There is little complaint about these; they will likely turn out fairly well. Ensilage corn is much the same as in other years since dairying led the farmers to try it on an extended scale. This is not saying much in its favor.

Fruit did better a good deal than last year, though not of course so well as the year before. We are not exporters of fruit in Prince Edward Island and our local market has been overstocked since the strawberries came in. It requires patience, fortitude and courage of the highest order on the part of the fruit vendor when he undertakes, with a barrel of apples or basket of plums, to negotiate a sale with the stony-hearted dowager who presides over the household jam crocks and preserving kettles in our small villages and towns. A small consignment of apples and plums were sent in cold storage the other day in the Winnipeg steamer from Charlottetown as a trial shipment to England.

During the autumn sheep and lambs have been bought up freely for shipment to Halifax and St. John by butchers and others in the trade. Later on fowls and mutton for St. John's, Nfld., and St. Pierre will be bought up and shipped in large quantities as in former years towards the close of navigation.

Pigs have been multiplying and growing moderately fat during the past twelve months—since the packing emporium was opened in the city. The breeding sow and the bacon hog will soon command equal consideration and regard with the much-belauded dairy cow. Pasturage was never better at this late season, and cheese factories are busy at work with little or no diminution of the milk supply.

When full returns are secured later on I think the season of 1898, although prices are not high, will rank as the most successful cheese year we have had since the factory system was established on the Island.

J. HAMILTON.

New Perth, P.E.I., Oct. 22, 1898.

## Cattle and Sheep on the Western Ranges

The following is taken from a bulletin of date October 1st, issued by the National Live Stock Association of the United States, and may be of interest to Canadian stockmen:

"The greatly discussed shortage of range cattle has

manifested itself beyond doubt, principally in the northern and western sections, where shipments will show a falling off from last year's record of from 10 to 15 per cent. The heaviest decrease is in aged cattle, three years old and over, of which class there is an actual famine in some sections. Young cattle are also not as plentiful in the range sections as last year, but the territory covered by Kansas, Nebraska and South Dakota report a large increase, hardly enough, however, to make up for the decrease in the West and North.



Two Holstein bulls, the property of A. & G. Rice, Curries, Ont. The one on the right is Homestead Albino de Kol 23589, calved April 22nd, 1897. First as a yearling at Toronto, London and Ottawa, 1898. The other is Calamity Jane's Paul 1383, calved Nov. 12, 1897, out of Calamity Jane, with a show record of 85 lbs. in or-day Sire Paul de Kol Clothilde, a noted prize-winner. This bull was first at London and Ottawa.

The percentage of range cattle that will go for feeders this year is considerably less than usual, owing to the good feed that has prevailed on the range and the strong demand for beef cattle. Most of the markets report a good percentage of arrivals fit for beef, and for the first time in some months the range steer is worth more for beef than as a feeder to be finished on corn. The demand for feeders in the West, including the territory west of the Missouri river, has been far less than last year up to the present time; but in the territory east of the river the demand is larger than it has been before in years. The crop of rough feed has been large in nearly all sections of the country and indications are favorable for the rough feeding of an unusually large number of cattle during the winter. While it is generally conceded that the number of cattle going into the dry lots for winter feeding will be lighter this season than last, this is considered a favorable sign for the maintenance of the present satisfactory prices for fat cattle. Packers report the beef demand for home and foreign consumption most satisfactory and the demand for good cattle well finished is unusually strong. It is expected that while the number of cattle on dry feed for the winter will be less than last year, the quality will average better, another factor towards maintaining the good prices.

While the movement of sheep thus far has been rather lighter than last year up to this time, the decrease in the movement being about ten to fifteen per cent., flockmasters are feeling independent and are holding prices pretty firm. In some sections the high prices have held the movement down to a very low point.

If present conditions continue, the number of lambs and sheep moved from western ranges this fall will fall fully 20 per cent. below last fall's movement.

The scarcity of cattle on the ranges of the West has made good grazing during the summer, and both sheep and lambs are coming out in better condition than usual. The expected demand from New England and eastern farms for stock sheep has not been as heavy as expected. Good ewes, both lambs and yearlings, are offered more freely than a year ago, though flockmasters still show a leaning toward keeping the breeding sheep on the range. . . .



All through the range country the tendency is to stiff prices, but efforts to advance further are invariably followed by a dropping off in trading, while a drop in prices is followed by active markets and a livelier movement. Stockmen are all in good shape financially and nearly all sections report the utmost confidence in the situation and ability to meet the winter without fear, no matter how severe it may be."

## The Store of Soil Nitrogen

By H. R. Ross, B.S.A., Gilead, Ont.

The prediction of Sir William Crookes that we shall yet be unable to grow wheat because of a lack of soil nitrogen appears to have failed in causing any great anxiety. It may be that such a lack of interest is pardonable because it is none too profitable for us to worry about the welfare of unborn generations, but it should at least rouse us to a realization of the necessity of husbanding the supply of that all-important element. It certainly is providential that we have not the entire nitrogen content of our soils at our immediate disposal, as the methods in vogue on the majority of farms would speedily result in some such condition as Sir William describes. The evil effect of such pernicious farm practice as will be referred to farther on is already being felt in the United States, for, according to their statistics, the average yield of wheat is only 12.4 bushels per acre. It may be stated with truth that this is not entirely due to a lack of nitrates, but the main cause is nevertheless found therein. Sooner or later, and the sooner the better, a change of methods along some lines must be instituted, or we in Canada will be found in a similar position.

In the first place, every rainy season sees gullies washed out along every slope and miniature lakes formed in all low places. In the course of time this water will soak away after the greater part has rushed away over the surface to some sufficient outlet. Now the nitrogen which is available for plant growth exists in a soluble form and the certain result of such conditions as the above is to remove it from the soil, or at least to wash it far down into the lower levels. This process, best described as leaching, is decidedly damaging, and there can be no apology for its prevalence in this province. The judicious use of tile drains with good outlets is acknowledged to be a paying investment, largely because they prevent such leaching. By keeping the soil porous and lowering the water level, they tend to check surface washing, and by allowing the ready passage of free water (that is not retained by the capillary power of the soil) all danger of leaching is avoided. Here, then, we have one method for retaining nitrates which is within the reach of all, and, since only leguminous crops, such as peas, beans, and clovers, have the power of absorbing this element from the air, we must not regard it lightly. Every pound of nitrogen which is washed out of the soil and hurried away to the sea brings us nearer to the time when we shall have to face failure in wheat growing.

Then, too, we have the farm manures. These all contain more or less nitrogen as made, but on nearly every farm such shameful waste exists as to practically destroy their value. Some farmers allow the liquid manures to go entirely to waste. This, since the liquid portion contains the greater part of the nitrogen, is clear loss. Others, again, use lime or wood ashes to absorb the liquid. This, however, is no better, as, by chemical changes in their presence, the nitrogen becomes volatile and passes off into the air. The best absorbents, that are at the command of all, are found in muck or soil of almost any kind, and horse manure. Either of these answers well, retaining the liquid, and adding to the value of the manure made at the same time. If a deodorizer as well as an absorbent is required, gypsum will be found to serve the purpose.

So much for inside treatment. Practice varies as to what is done outside. Some throw the manure out of the windows, under the eaves of the barn, and it is there baptized

by every shower. The same process of leaching is repeated here, and a like result obtained, for manure made by such a process is valueless as a fertilizer. Others use sheds, and thus take a step in the right direction. There is a danger, however, that the lack of moisture will induce too rapid fermentation, and thus allow the loss of nitrates through excessive heating. This is apt to occur where the manure is loosely piled and not moistened. For these reasons the advisability of using a shed is often called in question. Where one has a fairly level yard, with clay bottom, excellent manure may be made in the open by allowing the stock to run over it when turned out, and by keeping eave-troughs on the barn. It is safe to predict that no black rivulets will be found leading away from this manure pile, and the owner will be able to tell where it has been applied by the resultant improvement in his crop. A more expensive, but even better, plan is to have a compost heap in which all manure and refuse can be piled. Here the waste is slight, provided the sides are kept square, and prime fertilizer can be produced.

The application of manure is also a point which is often overlooked, but even scientists differ as to the best practice in this matter. We are safe, though, in assuming that the top-dressing of lowlands and hillsides is highly injudicious. And, too, we are safe in saying that lighter dressings more frequently given are more economical than heavy ones at greater intervals. It is not certain just how long the effect of a manure may be noticed, but it is better to apply a dressing with a definite object in view, planning to get the profits with the succeeding crop rather than during the next five or ten years. A rule of this kind would certainly make less waste of these valuable constituents of manure, more especially on sandy soils, or any other land possessing an open subsoil.

Despite the fact that so much has been said and written against it, the summer-fallow is yet to be found throughout Ontario. Most farmers regard it in the light of a cleaning process, and here is where the mistake comes in. Unless the land is manured, summer fallowing adds nothing to the sum total of a field's plant food supply. But it tends to increase the availability of that resident in the soil, and if the field is not sown with fall grain, the following spring sees a great risk of loss from leaching, because this more available food is easily washed down. It is, therefore, advisable to put a summer-fallowed field under crop the same season. By that means the loss is reduced materially.

We cannot quite agree that the summer-fallow, in the general acceptance of the term, is a necessary process. Certain it is that, if farmers placed a proper value on soil humus, the bare fallow would cease to be profitable. That, however, is not a part of this article. The writer has endeavored to point out a few ways by which every farmer can conserve the nitrogen supply without increasing the outlay for farm maintenance beyond a profit-producing point. And, if the farmers of Ontario will weigh the question, and ponder over the outcome, it is safe to predict that 1931 will not find our descendants living on Johnny cake.

## Selection of Stock Cattle for Feeding

Practical and experienced feeders, who breed and purchase steers for fattening, observe striking differences in the aptitude of animals of varying types and make-up to lay on flesh readily and in such form and quality as to command the highest price on the market. It requires a well-trained eye to detect in all cases the possible variation of results in the store or stock steer; but there are some distinctions that are easily detected. There are certain types of cattle, for instance, that never feed profitably under any conditions, and it is quite as important to discriminate against these in the feed lot as to be able to recognize the excellence in other types.

The characteristics that make the profitable feeder are naturally more difficult to detect in animals in stock condition than when fattened, but notwithstanding this there are a number of indications that are fairly reliable. Though the young steer may be comparatively thin in flesh and

temporarily lacking the thick, even covering of the back and ribs so essential in the finished carcass, he must nevertheless present that blocky frame and stoutness of build, accompanied by short, straight legs, wide back and loin, well sprung ribs, fulness back of shoulders and in flanks, prominent brisket, full neck vein, wide chest, and well-rounded barrel, together with a good, soft, mellow handling skin, and fine, silky hair, giving what is termed the thick, mossy coat, without coarseness, and with it all a good, strong, vigorous head, clear, full eye, and quiet temperament. The importance of an even covering of flesh and good handling quality can hardly be over-estimated. The bone should be moderately fine and clean. Coarseness either in the bone or about the head and horns is particularly objectionable, as it indicates coarseness of texture throughout and a greater percentage of offal and cheap meat, as well as a tendency to sluggish circulation. The head should present a certain refinement, finish, and vigor that in a measure indicate general quality and superior excellence of finished product, though this refinement must not be accompanied by delicacy.—*Prof. C. F. Curtiss, in Fourteenth Annual Report of Bureau of Animal Industry.*

## CORRESPONDENCE

### A Ten Days' Milking Competition

To the Editor of FARMING:

Replying to your favor re proposed ten days' milking competition I beg to say that I believe such a test, if properly conducted, would be of a great deal more value than those conducted under the present methods. In fact, it is the only correct method of comparing cows, since a test which does not take food into consideration is scarcely worthy to be called a test. Would like, however, to see a feasible plan outlined.

G. E. DAY,  
Guelph, October 22nd, 1898. Agriculturist, O.A.C.

### A Six Days' Test

To the Editor of FARMING:

I think the dairy test should last six days and that the cows should be kept seven days at the time of the show and that the cows making the most profit for the value of food consumed be awarded the prizes.

W. M. SMITH.  
Fairfield Plains, Oct. 25th, 1898.

### Co-operative Experiments

To the Editor of FARMING:

Allow me to offer a suggestion regarding co-operative experiments. I think that it would be a good plan for those who take part in this interesting and profitable work to publish the results in the local papers, as it would bring to the notice of many the results of the work that the agricultural reports would fail to reach, and also create a deeper interest in the work. When a neighbor sees or hears the result of an experiment it seems to cause a deeper interest in the right direction. What Canada needs to-day is more interest and better management on the part of the farmer in agricultural pursuits. I consider that to farm with skill takes as much knowledge and business ability as any trade or employment under the sun. Some might say that reporting to local papers is too much like "blowing your own horn," but if we want to agitate or bring forward anything new we must set a good example before we can expect others to do so. So let us, who have been experimenting, create and arouse a deeper interest in the work of co-operative experimenting so that a deeper interest may be stirred up in the community in which we live.

JAMES H. KEFFER.  
Sherwood, Ont., Oct. 20th, 1898.

### Making Cement Floors

To the Editor of FARMING:

Having read the article in FARMING of October 18th on "How to Make Concrete Floors," by Waldo F. Brown, I must say I agree with him in saying that one cannot get a more durable and cheaper floor than concrete.

But I must take exception to his statement that Portland cement is better and cheaper than cement at \$1.25 per barrel (I take it that he means hydraulic cement, manufactured out of the natural rock). Now, I, like Mr. Brown, have had an experience of several years in the use of cement. I have used all kinds of cement for twenty-three years, and for the last three years I have given all my time and attention to the use of concrete, and its use for basements for barns, silos, pig-pens, etc. I have used both Portland and natural cements, and find that one can build both walls and floors with natural cement far cheaper than with Portland. I have done work in nearly every county in Western Ontario, and can refer to many farmers who will vouch for the statements I make. Mr. Brown says it costs as much to make a given amount of floor with cement at \$1.25 per barrel as it will of Portland at \$3 per barrel, and also that one should use only three of gravel to one of natural cement, while with Portland one can use eight of gravel to one of cement, or five of gravel and five of broken stone to one of cement for the foundation, and two of sand to one of cement for the top coat.

Now, I do not use as much of the natural cement for a given amount of floor as Mr. Brown does of Portland. I will give you the way I put in my floors: Take a floor, say six inches thick; I first put on a layer of sand or gravel on the ground, and then make a batch of concrete, seven of gravel to one of cement. I spread this on about two inches thick, and then place in field stone and ram them down well in this concrete till they are about one and a half inches below the grade line. For cow stables, pig-pens, etc., I make the finishing coat two of gravel and one of cement, and ram this down well and float off with a wooden float. I never use any sand, always gravel, and can make as true and level a floor as one can of sand. Now, take the first coat, seven to one, and then add seven more parts of stone, which would be fourteen to one, and then the finishing coat of two to one would be just sixteen to two or eight to one, while Mr. Brown's way with the Portland cement is ten of gravel and broken stone to one of cement and the finishing coat two to one, which would be just twelve to two or six to one.

Now, I think if one can get cement at \$1 to \$1.25, and lay as much floor as Mr. Brown says he uses of Portland at \$3, I think there must be a great saving. I will give you an idea of what can be done with natural hydraulic cement. I have just finished an evaporator at Grimsby, Ont., for J. H. Vandyke, built entirely of gravel and Thorold cement manufactured by the estate of John Battle, Thorold, Ont. I made my concrete six of lake gravel to one of cement, and raised my plank sometimes four times in one day. The size of the building is 45 x 160 x 24 ft. high from bottom of foundation. The first storey is thirteen feet high and wall twelve inches thick; the second storey, eight feet high and ten inches thick; gables twelve feet high and eight inches thick. I was just fourteen and a half days doing the concrete work. The upper floor is held up by trusses; there is not a post in the first storey; the walls take all the weight. Mr. Brown refers to St. Paul and Minneapolis as to the testing strength of Portland. I may simply refer to the Welland Canal, where all the locks and their foundations were built exclusively out of Thorold cement.

I will, in some future issue, give you the way I make and use concrete for walls and floors.

I remain,

NORVAL B. HAGAR.

Allanburg, Ont., Oct. 25, 1898.

See our Premium List in next week's issue. It will be worth while to examine it carefully.

**NOTES FROM THE OMAHA FAIR.**

On another page we give a short account of the live stock judging contest, in which two ex-students of the Ontario Agricultural College were successful in winning first and third prizes. From later information received we find that two classes of swine were judged, bacon and fat hogs, two lots of fat cattle, and two lots of sheep. The marking was according to the schedule published in FARMING of August 30th last. J. E. Brethour, Burford, Ont., judged the hogs; Geo. McKerrow, of Wisconsin, the sheep, and J. Gosling, buyer at the Omaha Stock Yards, the cattle. Prof. Carlyle, of the Wisconsin Agricultural College, announces that he has had an offer of \$300 to be given as prizes in a similar contest at the Minnesota State Fair in 1899, open to students of 1898.

A very interesting shepherds' contest took place for the \$10 offered by *The American Sheep Breeder* to the four shepherds whom the judges should deem most worthy under the following conditions: "Each shepherd contending for a prize to bring into the arena five home-bred sheep of his own fitting, the test of merit being the condition of the sheep shown, and the manner in which they were presented for inspection." Thomas Bradburn, of England, and John L. Thompson, of Indiana, were the judges. Only one Canadian competed in this contest, Mr. Joseph Linden, shepherd for Gibson & Walker, Ilderton, Ont., and, though not successful in winning a prize, stood well up in the list.

*The American Sheep Breeder* also gave a special prize of \$10 to each of the first winners in the sheep and Angora goat departments of the Exposition. The following Canadian sheep breeders were successful in this class: A. J. Watson, Castlederg, Ont., for the best pair of Cotswold lambs; Gibson & Walker, Ilderton, for the sweepstakes Lincoln ram and ewe, and Wm. Oliver, Avonbank, Ont., for the best two-year-old Lincoln ewe.

**QUESTIONS AND ANSWERS.**

LICE ON TURNIPS. RUST ON WHEAT.

Mr. James H. Keffer, Sherwood, Ont., asks: "Is there any remedy or partial preventive for lice on turnips? They have completely destroyed the tops of the turnips in the eastern part of Vaughan township, thereby bringing the turnips to a standstill. Are the lice on the trees a retention of growth to the roots and would topping the turnips and leaving them in the ground assist the growth?"

"Is there any actual basis for computing the rate per cent. of rust or smut in experimenting with winter wheat or is it only guess work? If so please state the method."

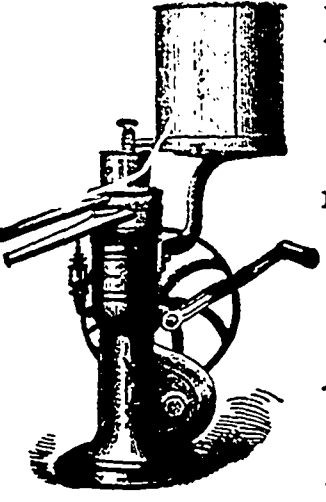
There is no very effective remedy for destroying lice on turnips. Turnip lice feed on the under side of the leaf and therefore it is difficult to get at them. These lice are suckers and to



## EARN A WATCH

Earn this valuable Watch, Chain and Charm by selling twenty **Topaz Scarf Pins**, at 15 cents each. Send your address and we forward the Pins and our Premium List, postpaid. No money required. These Pins will almost sell themselves, for the Topaz has all the brilliance of the best diamonds, and has never before been offered at anything like this price. The Watch is neat in appearance, thoroughly well made, and fully guaranteed. Unsold Pins may be returned. Mention this paper when writing.

THE GEM PIN CO., Freehold Fulding, Toronto, Ont.



## National Cream Separators

No. 1—330 lbs. \$75    **HAND or POWER**  
 No. 2—600 "    \$125

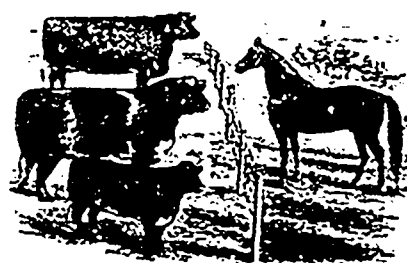
Perfect Skimmers    Easy to Run and Clean.  
 Saves Labor—Makes Money  
 The Best and Cheapest in the Market.

SOLD BY  
**The CREAMERY SUPPLY COMPANY**  
 Guelph, Ontario.

N.B.—We furnish all kinds of Creamery and Dairy Supplies. Send for Catalogue.

destroy them a kerosene emulsion or something of that character would have to be applied that would kill the insect by choking it. Lice on the leaves to any great extent will retard the growth of the root. We do not think topping would help matters and it would probably prevent growth altogether. Certain authorities claim that


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

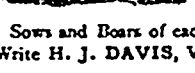


... OFFERS FOR SALE ...

TEN Choice Shorthorn Bulls, from six to eleven months; twenty-five Cows and Heifers served by imported bull, Golden Fame #20056; also a few cows with calves at foot. Farm 6 miles from Hamilton. Catalogue sent on application. Visitors met at G.T.R. or C.P.R. if notified.

**OCTOBER OFFERING**

 **5** Berkshire Boars  
 6 months old

 **6** Yorkshire Boars  
 5 to 6 months old

Sows and Boars of each breed supplied not akin. Write H. J. DAVIS, Woodstock, Ont.

**BARRED PLYMOUTH ROCKS**

A few choice Cockerels and Pullets for sale at moderate prices. Satisfaction guaranteed, write.  
**JAMES ROW, Avon, Ont.**

**Quick Cure For Lump Jaw**

Not one case in a hundred that cannot be cured by one to three applications of

**Fleming's LUMP JAW CURE**



Trade Mark Reg'd.  
 Lump Jaw has heretofore baffled treatment. It has infected herds and pastures, and caused loss of hundreds of thousands of dollars. This new remedy cures quickly, thoroughly, and permanently. Leaves jaw smooth and sound. Easy to apply; costs but a trifle compared with results.  
**GUARANTEE**—Every package sold under positive guarantee; money back if it ever fails to cure. Sent everywhere by mail. Price, \$2.00.

**FREE** A valuable illustrated treatise on cure of Lump Jaw sent free to readers of this paper.

Address: **FLEMING BROS.**  
 Chemists, ST. GEORGE, ONTARIO

**FARMERS WANTED**

To take orders in the Dominion for the famous land renewer,  
**Alberts' Thomas-Phosphate Powder (Reg.)**  
 Purity and analysis guaranteed. Correspond at once, as fall dressing of the land is important.

**WALLACE & FRASER**  
 58 Canada Life Building, - TORONTO

Subscribe for **FARMING** now.

insect life on plants is due to the lack of mineral fertilizers, such as phosphates in the soil. Where the plant can obtain plenty of these it is said to be able to throw off the effects of insect pests. We would like to see this tested by some practical farmer.

There is no basis that we know of for estimating the percentage of rust or smut in wheat other than taking a number of the straws or heads and counting the number that contain rust or smut. Where this is carefully done a pretty fair estimate of the amount could be secured.

**AMERICAN POULTRY SCIENCE.**

It takes a Yankee to tell a big story, and then requires an Englishman to polish it off. An English paper says that a Yankee has invented a patent hen's nest, which has a spring trap in the bottom. The hen proceeds to lay and the violence of her cackle causes the trap door to open so that the egg rolls out of sight. The Englishman says this is particularly valuable for Minorcas, and this is what he says the hen does: "With a look of astonishment on her face, as though she said, 'I could swear I did something,' she cackles again and lays another. This also disappears. Once more she looks, gets angry, and lays another. In this way you get six times as many eggs out of your poultry. Of course, it wears the hen out in two years or so, but you can always sell them for spring chickens to the boarding houses. Yes, there is a lot of science, no doubt; well nigh as much, indeed, as there is in American 'cackle'!"

**SUMMARY OF EXPERIMENTS IN CALF-FEEDING.**

By F. B. Linfield, Utah Experiment Station, Logan, Utah.

(1) Calves may be raised very profitably on skim-milk when it is properly fed.

(2) From the standpoint of gain in live weight and quality of meat, whole milk is the best food for calves, but it makes too expensive a ration to be profitably fed. Butter fat has been worth 16 cents per pound. The gain in live weight of these calves at 4 cents per pound returns but 10.7 cents per pound for the butter fat fed, at 3 cents per pound for the gain but 8 cents per pound.

(3) The calves whose rations were composed largely of skim-milk, while they gained one-half pound less per day yet required practically the same amount of dry matter to each pound of gain as did those fed on whole milk, they made just as good use of the food.

(4) The calves fed on whole milk alone gave a greater proportion of dressed meat to live weight than did those fed on skim-milk, and also gave more fat on the carcass.

(5) Young calves, up to three and a-half months of age, required less milk and less dry matter to each pound

of gain than did the hogs. When the calves were five and six months old, however, more dry matter was required, but at least half of it was hay.

(6) When fed to calves, fully as large financial returns were obtained for the skim-milk as when fed to hogs. With the gain in live weight at 4 cents per pound, the calves returned 22 cents per hundred pounds for the skim-milk and the hogs 22.8 cents. If the gain in live weight was worth 3 cents per pound, the calves would return 5 cents per hundred pounds more for the milk than would the hogs.

**MARKET EARLY.**

A writer in *Farm Poultry* says: We wish people would understand that, in letting their eggs get stale before marketing them, they are directly contributing to discouraging the consumption of eggs; they are injuring themselves and every other egg producer. People are willing to pay almost any price for eggs which they know to be fresh, and when they do get them they eat nearly twice as many as when they can not get them fresh. Of this we have abundant proof in personal experience with customers. It is just so with milk, as Mrs. Whitaker says. Her statement is: "If milk was what it ought to be, there would not be any surplus, for it is safe to estimate that most families would use two quarts where they now use one." That statement is absolutely true, and is just as true of eggs as it is of milk. We need to get producers and consumers nearer together, and get the eggs into consumers' hands almost before they are cold, certainly before they have had time to become stale—and when we can do that, we shall double the consumption of eggs as an article of food.

**CURES CATTLE**

For cattle coughs, sore throat, sprains, sore or caked bag and a score of accidents that might befall the herd, Griffith's Menthol Liniment is the greatest of external applications—proved the success that is claimed for it a thousand times—good in an emergency—quick to cure.

"We have used Griffith's Menthol Liniment with great satisfaction and success on our ranches, and believe that for horses and cattle there is nothing to equal it." P. R. Ritchie & Co., ranchers, Vancouver, B.C.

**GRIFFITH'S VETERINARY MENTHOL LINIMENT**

Relieves the instant applied  
At all Druggists—75 Cents

**AUCTION SALE OF PURE-BRED Shropshire Sheep**

Mr. John Dunkin, Thorndale, Ont., will sell by Public Auction, on

**Tuesday, Nov. 8th, 1898**

At 1 P.M. SHARP,

His splendid flock of Shropshire Sheep, comprising 26 Young Ewes, 20 Yearling Ewes, 20 Ewe Lambs, 23 Ram Lambs, and 1 two-year-old Ram, bred from first prize winners in England and Scotland

Teams will meet all trains at Thorndale Station G.T.R., to convey parties to the place of sale.

Full particulars may be had by applying to

JOHN DUNKIN, THORNDALE, ONT.

"Yes, sah," said the colored culprit, "I tuck de chicken. I was gwinter make some chicken pie, and I took de cook book and read de direckshuns, and hit says, 'Take one chicken.' Hit don't say buy one chicken or borry one chicken, but it says take one chicken. It don't say whose chicken to take, so I jest took de fust one I could lay my han's on. I followed de direckshus, sah, in the book."

**BOOKS AND BULLETINS RECEIVED.**

The American Short-Horn Herd Book (new series), Volume XLII., containing pedigrees of animals calved before February 1st, 1898. Notice is given in this volume that after January 1st, 1900, a fee of \$25 shall be charged for recording the pedigree of an animal over four years of age. Secretary, J. H. Pickrell, Springfield, Ill.

**REMARKABLE RESULTS.**

In the publication of agricultural experiments discussed by *The Stratford-on-Avon Herald*, Friday, June 24th, 1898, we note

**HORSE HURTS**

As an effective healer for sprains, curbs, galls, splints, sore throat, coughs, swelling, soreness or inflammation in horses and cattle, Griffith's Liniment has proved a supreme success—as good for the horse as for his master. P. H. Ritchie & Co., ranchers in Vancouver, B.C., say: "We consider Griffith's Menthol Liniment unequalled for horses. One of ours had a bad swelling on the left leg, which was swollen to an immense size. We applied the liniment, and in two days the swelling had left him. We have tried many liniments but have found nothing to equal it."

**Griffith's VETERINARY MENTHOL Liniment**

Relieves the instant applied  
At all Druggists—75 Cents



particularly the remark: "Thomas-Phosphate Powder, that latter-day introduction, dovetails conveniently with the nitrogenous collecting principle, and, for top-dressing rotation clovers and grass land, commands the situation." In a later edition of the same paper "A Wandering Commissioner," in the course of an article descriptive of his wanderings, says: "We were greatly interested in this field (at Newbold) on account of an experiment Mr. Potter had been trying with Alberts' Thomas-Phosphate Powder. The land is a poorish gravel soil of scanty herbage. Farm-yard manure had failed to give satisfaction on it. Last autumn he applied Thomas-Phosphate Powder, and the result is a mass of yellow clover, described by him 'as thick and soft as a feather bed.' In this particular instance it was the yellow variety of clover (Trefoil), and not the desired white, which the phosphate has become famous for producing. This is interesting, and we expect the explanation is that such poor land favors the lower order of yellow clover, because it has not a sufficiency of the plant food necessary to produce the higher order of vegetation to which the white belongs. But it is also interesting to note that white clover always gains the supremacy if sufficient of the phosphate is available with the potash in the soil. In looking over the field in question we can readily see ample evidence of the better clover already making headway. We speak with a good deal of confidence on this point, having noticed so many developments on similar ones."

**Stock Notes.**

MR. JAMES ROW, of Avon, Ont., is advertising choice Plymouth Rock fowls for sale in this issue. Those who want to improve their stock should write to him.

MR. JAMES S. HENDERSON, of Rockton, Ont., is one of the latest additions to the advertisers of purebred poultry. Mr. Henderson is well known to us, and we have every confidence that any representations he may make will be found correct in every particular.

MR. A. ELLIOTT, of Pond Mills, Ont., announces stock for sale in this issue, including Fmden geese, Pekin ducks, Bronze and other varieties of turkeys, Collie dogs, and Oxford sheep. Every farmer will find it profitable to have all of these, and Mr. Elliott, being a farmer himself, knows exactly what is required.

**FARMS FOR SALE**

PRICES LOW. TERMS OF PAYMENT EASY.

For List and particulars apply to

**J. L. SCARTH,** York Chambers, 11 Toronto St., Toronto.

**CHEAP FARM FOR SALE**

**\$775** Lot No. 6 in 12 and S½ Lot 7 in 12th Con. of Brudenell, County of Renfrew, 24½ acres Good buildings. Three miles from Killaloe Station. Apply,

**J. L. SCARTH,** 11 Toronto St., Toronto.

**IMPORTANT TO FARMERS**

**R. KENNETH & CO.,**

5 JEFFERSON SQUARE - LONDON, ENG.

are prepared to make advances as high as 70 per cent. of London, England, value, on all consignments of Apples, Poultry, Game, Eggs, Cheese, Butter, etc., shipped to them.

This firm has special facilities for handling all kinds of Canadian farm products in the English market, and offer special advantages to those having produce to dispose of.

Their representative is at present in Canada arranging for consignments, and is prepared to make direct connection with the farmers for their produce. Agents wanted in all business centres in Canada.

Address **R. H. ASHTON,** 159 Sherbourne Street, Toronto, Ontario, Best of reference furnished.

MR. NORMAN M. BLAIN, of St. George, Ont., has a change of advertisement in this issue. He is offering some fine young Tamworth boars and sows, brothers and sisters of the well-known prize winner, Blaine's Sunshine. He reports business in a most satisfactory condition and that his advertisement in FARMING is, as usual, bringing in good returns.

**For BETTER BUTTER**

Cleanliness, Ease and Money-making use the

**MAPLE LEAF CHURN**

Circulars Free on application.

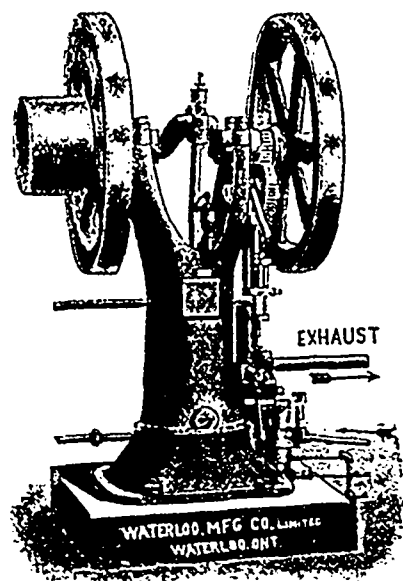
**WILSON BROTHERS**

Collingwood, Ont.

**Waterloo Gasoline Engine**

The most suitable power for farm use, and for running small machinery. Requires very little floor space, practically no water, no engineer. No waiting for steam to rise or wind to blow.

Will only cost about fifteen cents in ten hours per horse power. No power can be cheaper. Write for prices.



**WATERLOO MANUFACTURING CO., LIMITED**  
WATERLOO, ONT.

**HELDERLEIGH FRUIT FARMS AND NURSERIES**  
—400 ACRES—

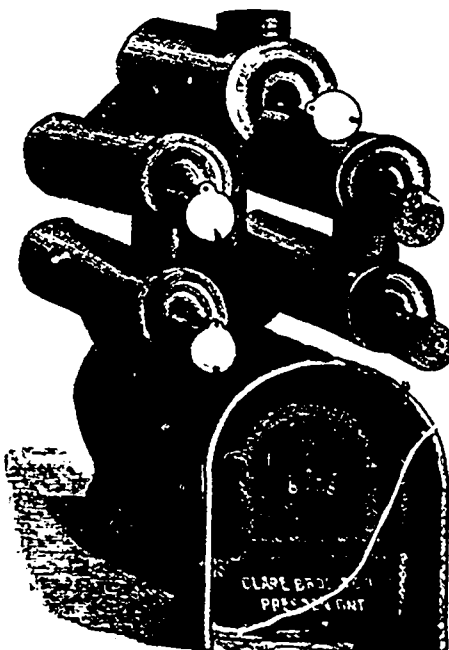
Situated at the base of the Mountain in a warm and sheltered valley where trees arrive at full maturity. Having over 125 acres planted in fruit, I have unusual facilities for knowing the value of the different varieties and establishing their purity. Everything is GUARANTEED TRUE TO NAME or purchase price refunded. I have for the fall of 1897, and the Spring of 1898, a complete line of Trees, Shrubs, Vines, etc., both fruit and ornamental.

Write for a Catalogue which is furnished FREE, and which contains over ten pages of closely written matter about the various PESTS that trouble fruit growers and means of preventing their ravages.

Buy CANADIAN GROWN STOCK only, and thus escape the dreaded San José Scale so prevalent in the States. There is no more reliable, healthier, hardier, or more complete assortment than mine.

Good reliable salesmen wanted in a number of fine townships, to start work at once. Complete outfit free.

Address **E. D. Smith, WINONA, Ont.**



The Milbora Wood-Burning Furnace. Our Catalogue explains.

**WE MAKE A Specialty of Heating**

And have placed many thousands of our "Hilborn" Wood Furnaces in country homes. Farmers use only rough and unsalable wood, and in this way soon save cost of a furnace, to say nothing of the comfort.

We can also give you furnaces suitable for coal or coal and wood, or if you want to heat with hot water we refer you to the

**PRESTON HOT WATER BOILER AND STEEL RADIATOR**

We guarantee every furnace to work satisfactorily. Would you like to see a list of the homes that we are heating?

We prepare free estimates, send catalogues and full information upon application, and invite correspondence.



**CLARE BROS. & CO.**

PRESTON, ONT.

Branch at WINNIPEG, MAN.

We desire to draw special attention to the advertisement of Mr. John Dunkin, Thorn-dale, Ont., in this issue. Mr. Dunkin is offering by public sale a splendid flock of purebred Shropshire sheep, comprising 90 animals, and bred from the best herds of Scotland and England. Among them may be mentioned such well-known sheep breeders as Messrs. Thos. Butler and John Wallace, Scotland, and Messrs. Mansell and Harding, of England, all of whom have been leading prize-winners at the British Royal Shows. Sheep breeders and others desirous of securing animals of this well-known breed should make it a point to attend Mr. Dunkin's sale on November 9th next.

### Publishers' Desk.

**Maple Sugar Flaking** — Please read the advertisement of The G. H. Grimm Mfg. Co., of Montreal, which appears in this issue.

**Purebred Poultry.** Mr. James Row, of Avon, Ont., is advertising barred Plymouth Rock, cockerels and pullets, for sale in this issue. Read his advertisement.

**Farms for Sale.** — Mr. J. L. Scarth, 11 Toronto St., Toronto, and Mr. E. A. Garnham, are advertising farms for sale in this issue. If you are looking for investments read their advertisements.

**Salt for Horses and Cattle.** — Those who desire to obtain perfectly pure rock salt can be sure of getting what they want by dealing with the Toronto Salt Works, of this city. We have known Mr. C. R. Cooper, the manager, for a great many years, and can confidently say that anyone who may have business dealings with him will find him a gentleman in every sense of the word.

**Enterprise and Merit.** — The attention of our readers is called to the advertisement of the Co-operation Knitting Co. of this city on page 182, headed "New Enterprise." There are hundreds of odd moments we know in most homes which could be silently and industriously converted into beneficial returns not only by the company's pay, but dollars saved by knitting your own and your neighbor's goods.

**Manurial Practice.** — David Popplewell, in writing from Low Fell, Gateshead, in May of this year to *The Scottish Farmer*, concludes: "These investigations of Germany's most eminent agricultural chemists furnish unanimous evidence of the value attached to Thomas-Phosphate Powder in Germany, where they are accepted as trustworthy and correct by all farmers, and in that country Thomas-Phosphate is becoming more and more recognized as the great fundamental factor in manurial practice."

**Music in the Home.** — Farmers sometimes say they cannot afford to have a musical instrument in their homes, but we believe this is exactly the reverse of the fact, and that no farmer can afford to let his family do without a musical instrument. Nothing contributes so much to the attractiveness of home life anywhere as music, and, where there are so few pleasures available to break the monotony as there are on the farm, old and young alike should have all the facilities for home enjoyment obtainable. A Bell piano or organ in the house brightens life, and makes it seem more worth the living. These instruments have brought entertainment to the inmates of many a farm house in the remotest districts of Manitoba and the Northwest, and the family which possessed it has been reconciled to an existence far removed from every other civilizing influence, and which would otherwise have been intolerable. If you want to keep the boys and girls at home make things agreeable for them.

**Well Satisfied with Results.** — Mr. M. Y. Manning, the manager of the People's Wholesale Supply Co., has very good reason to feel satisfied with his advertising experience in FARMING. He says: "We are deluged with replies to our ad. in your paper. The results have been far beyond my expectations, and far ahead of those obtained from advertising in any other paper we have ever used.

## CO-OPERATION

**S**END us Good Butter, in small or large rolls, tubs or crocks, Fresh Eggs, and Fat Poultry, any quantities, at any time, and we will return you the highest market price in cash or goods as you may direct. For Prices of Goods send for our Catalogue.

**THE PEOPLE'S WHOLESALE SUPPLY CO.,**

R. Y. MANNING, Manager.

144-146 King St. East, Toronto

Farmers from all sections of the country are sending us their produce and doing business with us as a result of these advertisements. In every instance those who have sent in produce have written to express satisfaction with the prompt returns we have made and the prices they have obtained through us. This large increase in our business has made it necessary for us to work every night with an extra staff of clerks in order to keep abreast with our orders."

Mr. Manning is one of the most enterprising business men in the city, and as his firm is one of the most reliable farmers may always be certain of prompt returns and perfectly fair dealing in any transactions with them.

### BRAVO! HIGHLAND LADDIES!

The annual announcement of *The Family Herald and Weekly Star* appeared last week, and it seems they have really secured that famous battle picture "THE THIN RED LINE" as a premium for their subscribers this year. This is the picture that is causing such a furor in Great Britain. No picture ever created so much excitement. It touches the heart of every British subject and makes them feel like crying out "BRAVO! HIGHLAND LADDIES!" It should be found in every Canadian home. It is sent free with the year's subscription to that magnificent paper "THE FAMILY HERALD AND WEEKLY STAR," of Montreal. The subscription price is \$1 per year.

### Why Do You Hesitate?

If you have an animal that is afflicted with Lump Jaw, why do you hesitate? Why do you run the chances of it spreading to the entire herd?

#### Mitchell's Anti Lump Jaw

has never yet failed in a single instance after following our instructions carefully, and if it does not do what we claim it will, we will refund your money.

Price \$2.00, sent by mail postpaid  
Full Particulars and Treatise Free.

ADDRESS  
W. J. Mitchell & Co.,  
Winnipeg, Man. or Prince Albert, N.W.T.

### THAT WONDERFUL CHURN.

H. T. Marshall writes us as follows: "I want to add my testimony to the list of those who have used the lightning churn. It does all that they claim for it. You can churn easily in one minute, and get a larger percentage of butter than with ordinary churns. I never took the agency for anything before, but so many of my neighbors wanted churns that I ordered thirty and they are all sold." Other farmers can do as well as Mr. Marshall. No farmer can afford to be without one of our churns. By using it he can make 25 per cent. more butter than with his old churn. Any intelligent farmer can easily sell four or five churns every week in his own township. Every one who sees his churn will want one like it. We will mail circulars and full particulars on demand. Mound City Churn Co., Ozark Bldg., St. Louis, Mo.

## The Spramotor

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

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

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

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

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

The SPRAMOTORS shoot mixtures stronger and evenner than any, which fact has greatly increased their sales.

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

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

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

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

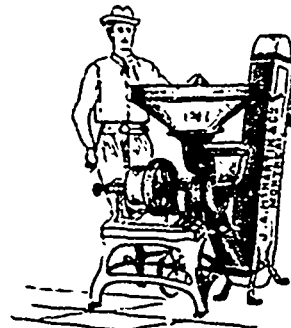
SPRAMOTORS are recognized as being the standard of the world, and they have proven it by EVERY TEST that a machine can be put to.

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

### SPRAMOTOR CO.

357 Richmond St., London, Ont.

### "LITTLE GIANT" GRINDING MILL



One of the best and cheapest mills in the market, possessing qualities which no other mill of its kind has.

We also make mills to grind corn and cob in the ear, and windmills geared to wood or steel. Also pumping.

Send for circulars and prices.

J.A. McMARTIN & CO., 14 St. George St., Montreal

### CHAMPION EVAPORATOR

For MAPLE, SORGHUM, CIDER, and FRUIT JELLIES. Has a corrugated pan over firebox, doubling boiling capacity, small interchangeable syrup pans (connected by siphons), easily handled for cleansing and storing; and a perfect automatic regulator. The Champion is as great an improvement over the Cookpan as the latter was over the old iron kettle hung on a fence rail.



Catalogue Free.

THE G. H. GRIMM MFG. CO.,

84 WELLINGTON ST., MONTREAL.

# The Ontario Agricultural Gazette

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

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

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

### BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale, are published once a month. Over 25,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

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

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

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

### STOCK FOR THE NORTH-WEST.

A carload of pure bred live stock will leave for Manitoba early in November. Intending shippers will receive full information upon application to F. W. Hodson, Parliament Buildings, Toronto.

### EXPERIMENTS WITH VARIETIES OF RAPE.

By C. A. Zavitz, Experimentalist, O. A. C., Guelph

Rape is grown in considerable quantities in some parts of Ontario for fattening sheep and hogs. The variety known as the Dwarf Essex is the one generally used by the farmers of this province. A few years ago a Wisconsin seedsman introduced a variety under the name of Dwarf Victoria, for which he made very extravagant claims. The following quotation is taken from his annual seed catalogue for 1898: "It (Dwarf Essex) is eleven miles behind in yield, in bushy, leafy quantity, and in vigor of growth and hardness to our splendid, yes, wonderful, Dwarf Victoria Rape." In tests made by growing these two varieties of rape under similar conditions, for four years in succession, in the experimental department of the Ontario Agricultural College, at Guelph, it was found that the Dwarf Essex variety gave better results than the Dwarf Victoria variety in each of the four years. The average yield of the Dwarf Essex rape for the four years was 26.0 tons per acre, while that for the Dwarf Victoria was 22.9 tons, or over three tons per acre in favor of the Dwarf Essex variety.

"Be sparing ob advice," said Uncle Eben. "Ef a man takes it an' goes wrong, he blames yer. An' ef he takes it and goes right, he thinks he knowed it all the time."—*Washington Star*.

### AN ABRIDGED REPORT OF AMERICAN EXPERIMENTS WHICH ARE OF VALUE TO CANADIAN FARMERS.

#### DAIRYING—GOOD VERSUS POOR COWS.

The importance of keeping none but the very best cows cannot be too strongly urged upon dairymen and farmers. A study of the amounts paid the patrons of any cheese factory will soon convince one that there is a very great difference between the amount paid for the best cows' milk and that paid for the milk of the poorest cow. The difference in the profits from keeping good, medium and poor cows has been very well illustrated by the experiment stations in the records of their herds.

The record of the dairy herd of 15 cows at the Utah Station shows that the food cost of 100 pounds of milk varied with the different cows from 29.48 to 52.07 cents. The cost of food per pound of butter had a wide range; it was from 5.91 to 11.8 cents per pound. With butter at 20 cent. a pound, the net profit per cow ranged all the way from \$14.71 to \$51.37 for the year. The cows had been selected with considerable care from common natives and grade stock.

Nine cows, mostly Jersey and grade Guernseys, at the Pennsylvania Station were fed in an experiment lasting 150 days. During that time there was a difference of \$33.10 in the profit from the poorest and the best cow. The value of the product from the best cow was \$64.32, while that from the poorest cow was worth only \$28.06. The profit from the best cow was \$37.65, and only \$4.55 from the poorest cow. The cost of the food was very nearly as much as for the best cow. This is the point so often overlooked.

At the New Jersey Station the cost of keeping a cow for the year was \$42.34, being the average for a herd of 21 cows. Valuing the milk at one cent a pound, the best cow cleared a profit of \$40.69, and the poorest one only \$1.79. The best cow had the ability to take practically the same food and make out of it a product worth \$38.90 more than the poorest cow could. Valuing the product as butter at 20 cents a pound, the best cow made a profit of \$38.74 over the cost of her feed, and the poorest cow made a loss of \$1.91. In this case the poorest cow did not pay for her keep. The best cow had the ability to convert out of the same food value a product valued at \$40.65 more than the poorest cow.

Such facts should convince every farmer that it is to his interest to test his cows and find out definitely which cows in his herd are profitable ones to keep.

#### EFFECT OF PERIOD OF LACTATION ON MILK AND QUALITY OF BUTTER.

During the winter of 1897 the Iowa Station completed their third experiment into the question of the effect on the production of milk and the quality of butter exercised by the length of time a cow had been in milk.

Four cows which had been milked for sixty-two days from calving were chosen to represent fresh cows, while the strippers which had been bred for six and a half months, on an average, were seven in number. Both lots of cows were fed the same quantity of rations. To each cow was given daily: sheaf oats, 8 lbs.; clover hay, 6 lbs.; corn, 6 lbs.; barley meal, 5 lbs.; sugar beets, 5 lbs.

The test was a six days' one, and the total amount of milk given by the fresh cows, separated, was 972 lbs., by the strippers, 886 lbs.

The results from this experiment coincide with those of the two former ones conducted by the same station, that the period of lactation has no direct influence on the flavor of butter. Similar experiments conducted by Prof. Dean at the Guelph Station, and by Prof. Kent, of Corvallis Station, Oregon, bear out the same view.

As regards the milk flow, and the percentage of butter fat in cows of different periods of lactation, the New Jersey Station finds that, although individual animals vary greatly, in the first five months the decrease in the total milk flow from month to month is proportionately greater than the



decrease in the total fat, and hence the average percentage of fat in the milk gradually increases, so that in the fifth month it is 0.5 greater than the average percentage in the first month. For the remaining three months the decrease in milk yield and in total fat was relatively the same. The influence of the period of lactation upon the composition of milk, while varying with individual animals, is, therefore, practically limited to the first five months.

The difficulty, so frequently experienced by dairymen when churning cream raised by the gravity system from cows somewhat far advanced in the period of lactation, is often due to the fact that, at that period, the fat globules become much smaller and the cream more viscous. To obviate this some food of a succulent nature should be given that will cause the secretion of milk to be of greater amount and not so viscous. Improper ripening, and keeping the cream at too low a temperature, is sometimes responsible for the difficulty in churning above referred to.

**FEEDING FAT INTO MILK.**

Quite a large number of successful feeders believe that they can increase the percentage of fat in milk by feeding certain kinds of foods, especially by increasing the percentage of fat in the food. The Cornell Station in an experiment in which varying quantities of tallow were fed found no increase in the per cent. of butter fat. A similar experiment in Germany showed that feeding tallow to milch cows did not increase the percentage of butter fat. The fat content was increased slightly during the first week or two, but disappeared later.

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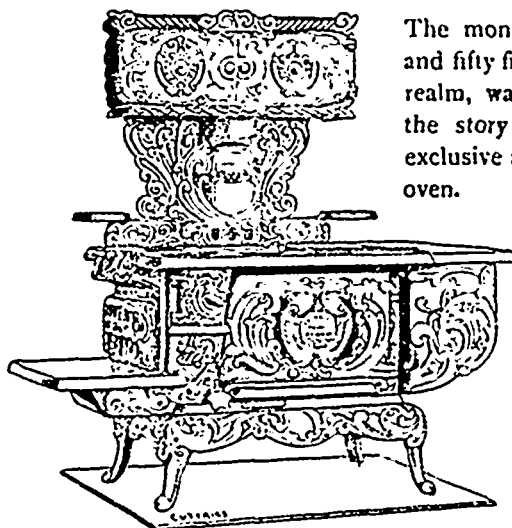
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pointers on the Souvenir ranges, free on application to any of our agents, or by post-card request to the manufacturers.

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## MARKET REVIEW AND FORECAST.

Office of FARMING.

44 and 46 Richmond street W., Toronto.  
Oct. 31st, 1898.

The wet, open weather has interfered very much with general trade throughout the country. With this exception, however, the situation is hopeful, and, with a big crop of grain to market, wholesale merchants and others are looking forward to a big winter's business. The advance in wheat a week or ten days ago had a wonderful effect upon trade, as it had the effect of inducing more wheat to leave the farmers' hands. There is not much change in general trade matters across the line, though there is some little hesitancy in a few centres as to what the new congress will be like.

## Wheat.

The foreign wheat markets showed considerable excitement early in the week but later on there was a slightly easier feeling, owing to stronger indications of peace being continued. Should war take place between France and England the price of wheat would mount upward with a bound. But even if there is no war there are strong indications of a big export demand for wheat for some time to come. It is reported that Russia is buying wheat in New York to cover sales of Russian wheat in European markets, as the sellers were unable to fill their contracts from their own crops. If this be correct it furnishes a new and important factor in the wheat situation. Though the farmers in the United States have been marketing their wheat more liberally of late, at none of the wheat centres are their large supplies. The export demand seems to be equal to, if not greater than supplies, coming forward. The total world's supply of wheat in sight at present is estimated at 35,808,000 bushels, against 51,429,000 bushels a year ago, showing a decrease of 15,600,000 bushels.

The leading wheat markets during the week have been somewhat wavering, seemingly not knowing what the next moment would bring forth. As far as we can judge, however, the general tone is a healthy one and does not indicate any great set back in prices for a time. The Montreal market on spot has been quiet but it is more or less of a nominal character just now. 78 to 80cts. have been offered for No. 2 red winter wheat afloat and No. 1 Manitoba hard has sold afloat at Fort William at 78½c. early in the week, but later on this figure dropped a couple of cents. Farmers in Manitoba are receiving from 60 to 62cts. The market here has been growing weaker as the week advanced owing to the passing of the war cloud. Prices have ruled at 70 to 71c. for red and white west, though some exporters were not inclined to offer more than 68c. There has been a good demand for goose wheat at 72 to 73c. west. This demand is said to come from Italy. No. 1 Manitoba hard is quoted at 84c. and No. 1 Northern at 81 to 82c. Toronto freights. The local market has an easier tendency at 73 to 73½c. for white, 73c. for red, 72c. for goose and 73c. for spring fls.

## Oats and Barley.

There has been a firm market in Great Britain for Canadian oats of late, owing to a scarcity of Russian. If Russia continues to hold back her oats, the English supply will have to come from Canada and the United States. There has been a good demand at Montreal for oats, with the bulk of the sales at 30½c. The market here is steady at 26½ to 27c. north and west. They sell at 31c. on the local market.

The Montreal barley market is firm at from 51½ to 52c. for malting. The market here is 46 to 47c. for No. 1, and 45 to 46c. for No. 2 west. The quotations on the local market are 50 to 52c.

## Peas and Corn.

The London market for peas has advanced 6d., though prices have been already considered too high. The Montreal market has ruled firm, with sales at 67c. in store and 70c. afloat. The market here has ruled firm at 60c. north and west in car lots. They bring 57 to 62c. on the local market.

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## Bran and Shorts.

There is a good export demand at Montreal for bran, and a large quantity of Manitoba has been placed for American account lately. Ontario winter wheat bran is in good demand at \$11.50 to \$12. Shorts are quoted at \$13.50 to \$14, and moullie at \$15 to \$16.50. Bran is quoted here at \$8.50 to \$9 west, and shorts at \$14 to \$15 west.

## Clover and Timothy Seed.

The offerings of Alsike have not been so large of late, there has been some enquiry for export and prices have ruled at from \$4 to \$5. Receipts of clover have been more liberal and quotations are \$3.25 to \$4 for red clover. Timothy is quoted at \$1.25 to \$1.35 per bush.

## Eggs and Poultry.

A good demand continues in Great Britain for Canadian fresh eggs, and prices have advanced from 6d. to 1s. per 120 for choice stock. The Montreal market is firm, and new-laid eggs seem to be steadily increasing in value. Large size lots bring from 19 to 19½c., and single cases 20c. per dozen. Choice fresh candled stock is quoted at 14c. to 15c. and culls at 9 to 10c. Prince Edward Island eggs sell for 13c. Eggs, new laid, are quoted here at 16 to 17c. wholesale, and held stock at 14 to 15c. On the local market new-laid eggs bring from 18 to 20c.

Poultry is in good demand here, and, with cold weather, is expected to improve. Prices are steady at 25 to 40c. for chickens, 40 to 50c. for ducks, 5 to 6c. per lb. for geese, and 8 to 10c. for turkeys. On the local market prices are a shade higher than these figures.

## Potatoes.

Receipts of those have fallen off at Montreal and the market is 5c. higher with sales of good cars at 50c. per bag. Good stock is jobbing out at 60c. and poor at 40 to 50c. Potatoes are quiet here and car lots sell for 55 to 60c., and out of store for 60 to 65c., 65 to 75c. per bag are the quotations on the local market.

## Hay and Straw.

Quotations for hay at Montreal are as follows: No. 1 Timothy, \$6.50 to \$7; No. 2, \$5.50 to \$6, and clover \$4.50 to \$5 on track. Baled hay here is quiet and cars on the track are quoted at \$7 to \$7.25. Timothy on the local market sells at \$8.50 to \$10.00, and clover at \$6 to \$7.50 per ton. Loose straw brings \$4 to \$5 per ton, and baled \$4 to \$4.50 in car lots.

## Fruit.

There are varying reports regarding the apple crop. The American crop is reported scarce and there has been large buying on United States account, but strange to say, most of this stock is stored here for export to England, which would seem to indicate that the American supply is not so very small. Prices as a rule do not show much change, and from \$2.75 to \$3.00 are the ruling figures for good quality at Montreal, with reports that many shipments have netted shippers in west \$1.80 per barrel and some, as low as 40 to 50c. The British market has advanced and good quality of Baldwins have sold at 24s. per barrel and prime Kings up to 28s. Apples on the local market here are quoted from \$1.00 to \$2.50 per hbl.

## Cheese.

It is now pretty clear that there will be a large shortage in the make of 1898, as compared with that of 1897. Up to Oct. 22nd the total shipments from Montreal were 1,563,859 boxes, as compared with 1,783,737 boxes for the same period last year, showing a decrease of 219,878 boxes. This coupled with the decrease from New York for the same time makes a total shrinkage in shipments from this side of 458,500 boxes. In addition to this the factories, as a rule, are not holding as much cheese as at this time last year. The London market is reported easier and receipts have been more liberal of late, which have supplied the demand for the time being. Finest Canadian is quoted there at 44s. to 45s. though the public Liverpool cable hovers around 42s. The local markets during the week have been quiet and sales reported all the way from 8½ to 8 11-16c., from 8½ to 8¾c. being the ruling bids, with a great many factorymen refusing to sell. There has been a better volume of business done at Montreal since the decline, and quotations there are finest western colored 9c., finest western whites, 8¾ to 8½c., and finest eastern 8½ to 8¾c.

## Butter.

According to London cable reports to the *Trade Bulletin*, the keen edge of the butter market is off, and values have receded 1s. to 2s. per cwt. There is, however, a good demand at the decline. Choice fresh Canadian creamery is quoted at 100s. to 106s.; good to fine, 92s. to 98s. Australian is reported to be coming forward with sales reported at 116s. per cwt., but it had a fresh, summer grass flavor, which Canadian does not now possess. Some fancy brands of Canadian sold recently for 108s., which is a good price considering the condition of the market. Exports from Montreal are increasing, and up to Oct. 22nd the total shipments amounted to 219,208 packages, as compared with 202,223 packages for the same period last year, an increase of 16,985 packages. But the shipments from New York have been so far short of last year that there is a decrease in the total shipments from this side as compared with last year of 103,932 packages. It is not expected that there will be much Australian on hand till December, but Danish butter is reported scarce, and the English supply is short on account of the drought. There is room for disposing of large quantities of Canadian before the product from the Antipodes arrives. Things are a little easier at Montreal, and the export buying has not been so brisk. 18½ to 18¾c. is the quotation for choice creamery in boxes, and 18 to 18¼c. in tubs. Western dairy is quoted at 14 to 15c. The demand for creamery here continues steady at 20c. for prints, and 18 to 19c. for tubs. Choice dairy tubs and large rolls are quoted at 15 to 16c., and medium at 13 to 14½c. Dairy pound rolls are quoted at 16 to 16½c. Pound rolls on the local farmers' market bring 18 to 22c., and large rolls 14 to 16c. per lb.

## Cattle.

The cattle markets here, as well as in the United States, during the week have been loaded up with a great amount of stuff, which

has caused values to decline from 10 to 15c. per 100 lbs. on all the American markets, and to show an easier tendency here. Early in the week there was the largest run of Canadian cattle on the Buffalo market of the season, and this has had a depressing effect on the market here.

**Export Cattle.**—These are easier owing to large supplies during the week and a falling off in the export demand. On Friday choice heavy exporters sold at \$4.00 to \$4.20 per cwt., and light exporters at \$3.65 to \$3.80. Loads of good butchers' and exporters mixed sold at \$3.80 to \$4.00.

**Butchers' Cattle.**—Choice picked lots equal in quality to exporters, but not so heavy, bring from \$4.00 to \$4.12½; good from \$3.60 to \$3.75; medium from \$3.30 to \$3.40; common \$3.00 to \$3.12½, and superior from \$2.60 to \$2.75.

**Steers, and Feeder.**—Heavy feeders bring from \$3.40 to \$3.70 per cwt.; feeding bulls for the byes \$2.50 to \$2.75; stock bulls \$2.00 to \$2.25, stock heifers \$2.50 to \$2.60. Steers are easier, the bulk selling at \$3.00 to \$3.25, with picked lots fetching \$3.50 to \$3.40.

**Cattle.**—These have been in fair supply at Buffalo, though the demand has been good at from \$5 to \$7.25 as to quality. The market here shows little change, and prices run from \$3 to \$6 each. Good heavy choice veals are wanted, and are worth \$5 per cwt. live weight.

**Veal Cows.**—There is a ready market for these at \$28 to \$50 each.

**Sheep and Lambs.**

The market for these at Chicago and West ern points continues brisk, though the Buffalo market had an easier tendency toward the end of the week. The good demand for feed ers in the West continues, and until these are filled for market it is expected the supply will not be large. Lambs at Buffalo are quoted all the way from \$4.75 to \$5.40 as to quality, and sheep from \$3 to \$4.00. The sheep mar ket here is rather slow, with prices running from \$3 to \$3.25, and bucks at \$2.75 per cwt. Lambs are firm at \$4.12½ to \$4.25 per cwt., with choice picked ewes and wethers running about 10c. per cwt. more.

**Hogs**

There have been large supplies of these on the Buffalo and Chicago markets of late, and prices are easier though a good export demand is reported. The Montreal market has ruled steady, and the bulk of the offerings have been taken by packers at \$4.40 per cwt. Deliveries have been large here, and the mar ket has a downward tendency. On Friday the best selection of choice bacon hogs, weigh ing 160 to 200 pounds, brought from \$4.15 to \$4.25; light fats, \$4; and sows, \$3 to \$3.25 per cwt. Thick fat hogs seem to be in demand just now. A special cable to the *Trade Bulletin* of Oct. 27th, from London, Eng., states that the bacon market is demoralized and prices are declining owing to large receipts of Irish and Danish. Sales of Cana dian bacon have been made at 2s. decline

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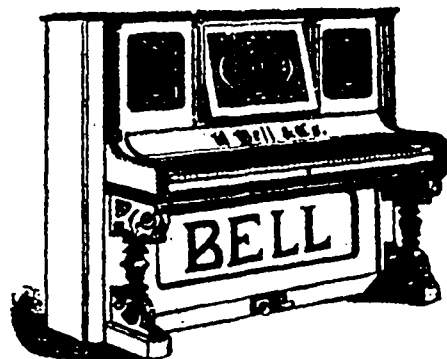
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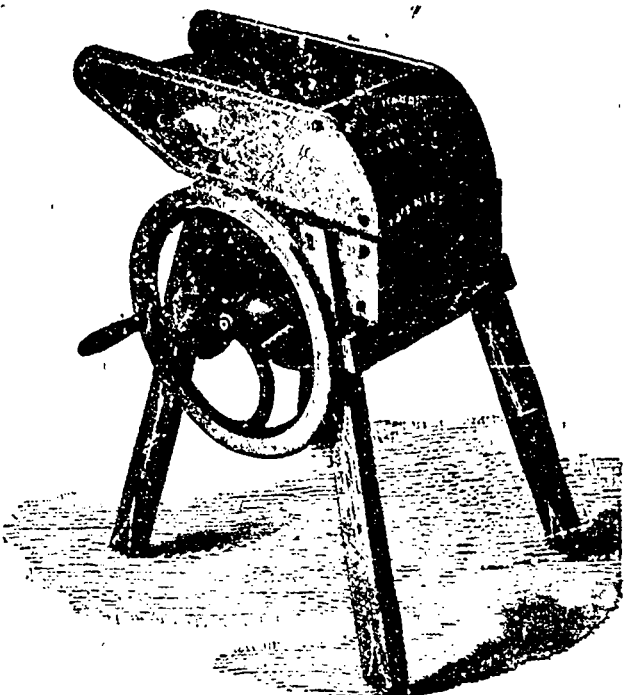
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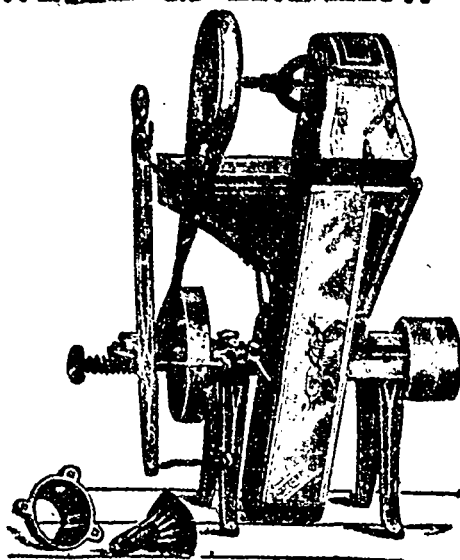


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This is our No. 2 Grinder with Elevator, suitable to be run by a tread power or a sweep power. Has divided hopper for crushing and grinding corn on the cob, as well as small grain. Elevator attached as above when desired. Please notice that it is provided with a double discharge spout and switch handle, so that one sack can be removed while the other is filling. Send for catalogue. We also manufacture

TREAD POWERS  
THRESHERS  
FEED CUTTERS  
HAY PRESSES  
CIRCULAR SAW MACHINES  
etc., etc.

**MATTHEW MOODY & SONS**  
TERREBONNE, QUE.

**There Is No Doubt** About the **MERIT** of **DEHORNING**  
It cuts both ways, does not crush. One clip and the horns are off close. Write for circular. The Keystone Dehorner Mfg. Co., Platon, Ont., Can.

### Extract from Annual Report for 1897

of the Consulting Chemist of the ROYAL AGRICULTURAL SOCIETY OF ENGLAND, published in their Journal, 31st December, 1897, page 732:

"It has been necessary to call attention to the fact that under the name of 'slag,' and sometimes even under that of 'basic slag,' have been sold refuse materials of a very different character, and having little or no mineral value. These have not been the product of the now well known 'Basic' or THOMAS process of iron or steel-making, and have contained little or no phosphoric acid such as basic phosphate has. In several instances the purchasers believed that they were buying the true basic slag. It behooves one, therefore, to be careful to stipulate for THOMAS-PHOSPHATE, and to have a guarantee of phosphoric acid contained, and of fineness of division."

We handle the only true

## Thomas-Phosphate Powder

sold in Canada; and to be sure of genuine material, see that the bags have our name and address.

**WALLACE & FRASER**

Masonic Block  
ST. JOHN, N.B.

Canada Life Building  
TORONTO

## Woodstock Steel Windmills



FOR  
POWER  
AND  
PUMPING

Get a  
**DANDY**

WITH  
GRAPHITE BEARINGS  
They Run without Oil.

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

**WOODSTOCK WINDMOTOR CO., Limited**  
Woodstock, Ont.



### Every Man His Own Cobbler

The Home Repairing Outfit. A complete set of tools for Foot, Shoe, Rubber, Harness and Tinware Repairing. 44 articles packed in a neat strong box; weight, 18 lbs. Every family needs one. They sell like hot cakes. Price for the complete outfit, \$1.75.

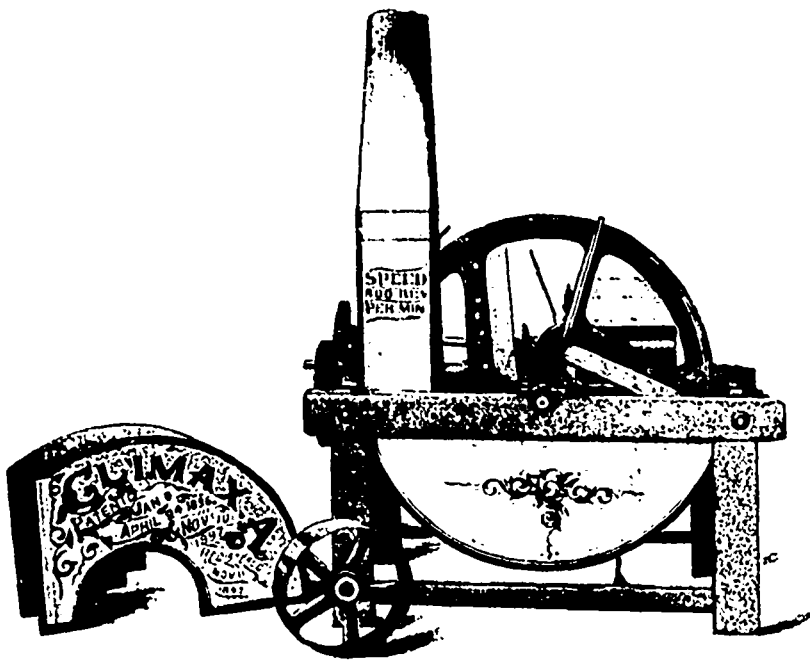
The Valley Dealings  
MONTREAL, Quebec.

# Our Ploughs

are recognized as the best that money can buy, from Halifax to Vancouver.

They last longest, draw lightest, work easiest. Our name and address cast in all repairs protects the farmer from imposition.

**They last twice as long.**



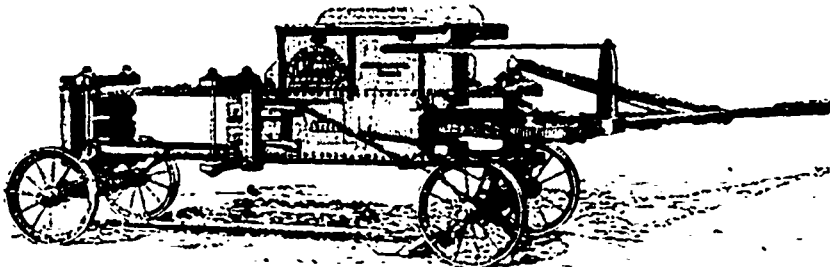
## Our Pneumatic Ensilage and Straw Cutters

in three sizes, are the simplest the strongest, the fastest, and the lightest running in the market. Threshers have threshed all morning, and cut and delivered the straw in the mow in the afternoon. Capacity is only limited by the quantity which you can get to the machine.

The **WILKINSON PLOUGH CO., Limited,** - TORONTO, Ont.

## Dederick's Patent Steel Case Hay Presses

This is the only Reversible Lever Horse Hay Press that dared appear when called out for competitive test at the Chicago Columbian World's Fair



Made of Steel. Improved for this Season. Patent Retainers. Patent Folder Roller. Patent Tension Blocks. Patent Side Clamps.

These improvements make the Press lighter, stronger, easier on the horses, and more powerful. This is the leading Hay Press in Canada and the United States. Also PATENT ADJUSTABLE AND DIMENSION BALE TIES. MANUFACTURED BY

**BOYD & CO., - HUNTINGDON, QUE.**

PRICE

**\$5**

**VESSOT'S  
Subsoiler**

the Farmers' Greatest Friend  
Write for Circulars



**S. VESSOT & CO., Joliette, Quebec.**

## Good Butter Making

Do you want to make your churning sure, safe, profitable? And easy, too? Do you want to find a quick market for your butter?

Then try **WINDSOR SALT**—the salt that is pure and dissolves so easily. It has no bitter taste—successful buttermakers recommend it, and they ought to know.

Progressive Grocers Sell

## Windsor Salt

The Windsor Salt Co  
Limited,  
Windsor, Ont.

A VERY DESIRABLE IMPROVED

## FARM FOR SALE

BEING parts of Lots 125 and 126 South Talbot Road, Township of Bayham, County of Elgin. 180 acres—about 115 cleared and in a good state of cultivation. Good orchard and small fruits. Frame barn, 10x100. Good stabling and accommodation for cattle and horses, sheep and swine. A 150-ton silo. Vegetable and milk cellars. Outbuildings and fences in first-class condition. Good water, and all conditions requisite for success in farming or cattle raising. Price moderate and terms to suit.

**E. A. GARNHAM,  
STRAFFORDVILLE, ONT.**

## Thoroughbred Poultry For Sale

Tri-o Dark Brahma Fowls for \$4.50.  
Tri-o Dark Brahma Chicks for \$5.50.  
A few Dark Brahma Hens at \$1.50 each.  
Two Partridge Cochins at \$2 each.  
One White Cochins Cockerel at \$2.50.

White and Barred Rocks and White Wyandotte Cockerels for breeding purposes cheap. All from prize-winning stock. Write

**A. J. GEORGE,  
Clarence St., - London, Ont.**

## FREE.

We give this fine watch, and also a chain and chain for selling two dozen **LEVER COLLAR BUTTONS**, at 10 cts. each. Send your address and we forward the Buttons, postpaid, and our Premium List. No money required. Sell the Buttons among your friends, return the money, and we send the watch, prepaid. A genuine American watch, guaranteed a good timepiece. Mention this paper when writing.



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