

FARM AND DAIRY

AND
&
RURAL HOME



DEVOTED TO
BETTER FARMING
IN CANADIAN
COUNTRY ALL



Comm. of Conservation
Jan 23
Asst. Chairman

Toronto, Ont., May 10, 1917



A JOY RIDE IN OLD QUEBEC.

ISSUED EACH WEEK.

Address all Correspondence to
The Rural Publishing Co., Limited, Peterboro, Ont.

ONE DOLLAR A YEAR.

2

SARNIA FENCE PRICES

Advance June 10th, 1917

Direct from Factory to Farm

Take advantage of these close prices for immediate delivery

A recent announcement of another advance in the price of wire products makes the present market price approximately two and one half times the market price of 1914, before the outbreak of the war, and many manufacturers are paying a bonus of \$3.00 to \$5.00 per ton for reasonably prompt delivery.

With the entrance of the United States into the war, prices on all steel are advancing and delivery dates becoming more uncertain. The enormous tonnage of steel which will be required by the government for the manufacture of ammunition, guns and the building of ships will make it almost impossible to obtain steel for domestic purposes at any price, as government orders will be given preference.

We cannot urge too strongly to anticipate your future requirements and BUY NOW. Owing to the tremendously increased cost of raw material and advance in freight rates and present labor condition we are forced to advance all prices on June 10, 1917. In the very near future it will not be a question of price but the problem will be to get delivery at any price.

We are in a position to make immediate delivery on a limited tonnage at the prices quoted herewith but when our present stock is expired prices and delivery will be very indefinite. Mail your order to-day and assure yourself of prompt delivery at the low price.

For Prices Delivered in New Ontario, Quebec and Maritime Provinces

Add 3c per rod to the prices of fence quoted herewith, 25c advance for gates and stretchers, 10c per sack of staples and 10c per coil of brace wire.

Guarantee

We guarantee our fence to be made from the best galvanized hard steel wire both stay, line wire and knot, and to be the most perfectly woven fence on the market, and of full Government gauge No. 9 wire.

Notice

These prices are freight prepaid to any station in Old Ontario on shipments in lots of 200 lbs. or over.

Remit direct to The Sarnia Fence Co., Ltd., Sarnia, Ont., by Post Office order, money order, or bank draft.

We want your order whether for one bale or a carload.

Send Your Order Today

Cash With the Order Saves Expense and You Get the Benefit of the Saving in the Price

4-34-0 HORSE AND CATTLE FENCE. Has 4 line wires, 34 in. high, 9 stays per rod. Made of all No. 9 wire. Spacing 11, 13, 15. Weight 8 1/2 lbs. per rod. Price per rod	25c
5-40-0 HORSE AND CATTLE FENCE. Has 5 line wires, 40 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 10, 10, 10, 10. Weight per rod 6 1/2 lbs. Price per rod	30c
6-40-0 HORSE AND CATTLE FENCE. Has 6 line wires, 40 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 7, 7, 8, 8, 9. Weight per rod 7 1/2 lbs. Price per rod	34c
7-40-0 HORSE, CATTLE AND SHEEP FENCE. Has 7 line wires, 40 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 5, 6, 7, 7, 8, 8, 9. Weight per rod 8 1/2 lbs. Price per rod	38c
7-48-0 HORSE AND CATTLE FENCE. Has 7 line wires, 48 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 5, 6, 7, 8, 9, 10, 11. Weight per rod, 9 lbs. Price per rod	38c
8-40 GENERAL STOCK FENCE. Has 5 line wires, 40 in. high, 12 stays to the rod, all No. 9 hard steel wire. Spacing 4, 5, 6, 6, 6, 6, 6. Weight per rod 10 1/2 lbs. Price per rod	47c
8-48 GENERAL STOCK FENCE. Has 5 line wires, 48 in. high, 12 stays to the rod, all No. 9 hard steel wire. Spacing 4, 5, 6, 7, 8, 8, 9. Weight per rod, 11 lbs. Price per rod	49c
9-48-0 GENERAL STOCK FENCE. Has 5 line wires, 48 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 5, 4, 5, 6, 6, 8, 8, 9. Weight per rod 11 lbs. Price per rod	50c
9-48-0 SPECIAL HORSE AND CATTLE FENCE. Has 9 line wires 48 in. high, 9 stays to the rod, all No. 9 hard steel wire. Spacing 6, 6, 6, 6, 6, 6, 6, 6, 6. Weight per rod 11 lbs. Price per rod	50c
9-48 GENERAL STOCK FENCE. Has 5 line wires, 48 in. high, 12 stays to the rod, all No. 9 hard steel wire. Spacing 4, 4, 5, 6, 6, 8, 8, 9. Weight per rod 12 lbs. Price per rod freight prepaid	54c
10-50 HORSE, CATTLE SHEEP AND HOG FENCE. Has 10 line wires, 50 in. high, 12 stays to the rod, all No. 9 hard steel wire. Spacing 3, 3 1/2, 3 1/2, 4 1/2, 4 1/2, 5, 5, 5, 5. Weight per rod 13 1/2 lbs. Price per rod	60c
18-50 STOCK AND POULTRY FENCE. Has 18 line wires 48 in. high, 24 stays to the rod, top and bottom wire No. 9, filling No. 12 hard steel wire. Spacing 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 2 1/2, 2 1/2, 3 1/2, 4 1/2, 4 1/2, 4 1/2. Weight 12 1/2 lbs. Price per rod	60c
WALK GATE 3 1/2x48	2.75
FARM GATE 12x48	5.25
FARM GATE 13x48	5.50
FARM GATE 14x48	5.75
FARM GATE 16x48	6.25
STAPLES GALVANIZED, 1 1/2 in. per box of 25 staples..	1.20
BRACE WIRE, No. 8, Soft per coil 25 lb.	1.20
STRETCHER. All iron top and bottom draw very heavy tested chain, extra single wire stretcher and splicer, the best stretcher made at any price	9.50

Prices Delivered in Old Ontario Before June 10, 17	Prices Delivered in Old Ontario after June 10, 17
25c	27c
30c	32c
34c	36c
38c	41c
38c	41c
47c	50c
49c	52c
50c	53c
50c	53c
54c	58c
60c	64c
60c	64c
2.75	3.00
5.25	5.50
5.50	5.75
5.75	6.00
6.25	6.50
1.20	1.30
1.20	1.30
9.50	10.00

All No. 9
7-48-0-38c
Freight Paid

Price

Sarnia Fence is sold Direct from Factory to Farmer for cash. By our unique selling plan we eliminate everything that adds unnecessarily to the price of our fence such as excessive overhead expense, Travellers' expense, Jobber's profit, Dealer's profit, bad debts, and charges for handling two or possibly three times. Thus we give you our fence at first cost.

Sarnia Fence is made in what is conceded by the best Industrial experts to be the best equipped and most economical fence factory in America.

Combining these features—Our Direct Selling Policy—Our Low Cost of manufacture, our unconditional guarantee, and the fact that we are not connected in any way with Manufacturers' combines, for the elimination of competition and the maintenance of high prices we believe you will give us credit for being in a position to sell you the best fence it is possible to make at the lowest possible cost.



He Welcomes Fact

Trade increases th

VOL. XXXVI

"I DON'T believe of Cape Breton far the cracker has "They never paid me, going into sheep next "If you put as much as I have to," the man as he put the cover barrel, and put a case was interrupted. "Do you know what cows?" asked a young legs course. "No," said the farmer I was going to kn doing?" "Well," replied the farmer, was a rising farmer, testing?" "I did, but who is cans and scales when do?" answered the al throughout the district the college man was ex- plic cost-testing really The upshot of the con- purchased two extra spring balance. This conversation to Mac's cows began to with all the enthusias cause, he carefully mo cow's milk. He would scale and turn the poi milked a cow he pour and marked on a chart charts were obtained mental Farm fore.

Surprises During that summer eral surprises. The 5 cows averaged only abo pet cow, one that filled ing and evening durin came third on the list. His tests, was one the show, but kept continu results of his summer upside down. Two of his cows we pounds. These he sen along with the next lo place he bought two gr He did not feed his c interest in increasing t grew more intense he t est in the feeding probl 1913 was over, and he f found that his two g lbs. of milk for the ye

The Sarnia Fence Company, Limited, Sarnia, Ontario
Fence put up in 20, 30 and 40 Rod Rolls Only



FARM AND DAIRY

& RURAL HOME



We Welcome Practical Progressive Ideas.

The Recognized Exponent of Dairying in Canada

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

VOL. XXXVI

TORONTO, ONT., MAY 10, 1917

No. 19

The Result of Mac's Cow Testing

The Story of a Cape Breton Farmer—By John H. McDonald

"I DON'T believe cows pay," said a grizzled old Cape Breton farmer, as he leaned up against the cracker barrel at the village store. "They never paid me, and they never will. I am going into sheep next year."

"If you put as much brains into your business as I have to," the merchant started to remark as he put the cover down tight on the cracker barrel, and put a case of sardines on top, but he was interrupted.

"Do you know what you gain or lose on your cows?" asked a young man who had taken a college course.

"No," said the farmer, "how do you think I was going to know what each cow was doing?"

"Well," replied the young man, who, by the way, was a rising farmer, "did you ever hear of cow-testing?"

"I did, but who is going to start fooling with cans and scales when he has something else to do?" answered the older man, who was known throughout the district as "Mac." In a short time the college man was explaining to "Mac" how simple cow-testing really was, when one knows how. The upshot of the conversation was that "Mac" purchased two extra milk pails and a dial-faced spring balance.

This conversation took place in January, 1912. Mac's cows began to freshen in February, and with all the enthusiasm of a convert to a new cause, he carefully measured and weighed each cow's milk. He would place an empty pail on the scale and turn the pointer back to 0. When he milked a cow he poured her milk into the pail and marked on a chart the amount of each. The charts were obtained from the Central Experimental Farm free.

Surprises for "Mac."

During that summer "Mac" ran up against several surprises. The greatest was that his ten cows averaged only about 3,500 pounds each. His pet cow, one that filled a three gallon pail morning and evening during two of the summer months came third on the list. The best cow, as shown by his tests, was one that never made much of a show, but kept continually at it. Altogether the results of his summer's tests turned his ideas upside down.

Two of his cows went very little over 1,000 pounds. These he sent straight to the butcher along with the next lowest on the list. In their place he bought two grade Holsteins.

He did not feed his cattle very well, but as his interest in increasing the production of his herd grew more intense he began to take more interest in the feeding problem. When the season of 1913 was over, and he had his accounts balanced, he found that his two grade cows averaged 3,000 lbs. of milk for the year. The rest of his herd

averaged about 4,500 lbs. The two grades brought up the average production to 5,200.

The fact that most impressed him was that his two grades produced 16,000 lbs., while the seven scrubs totalled 31,500 lbs. At this rate four grades would be better than his seven. At the end of the season of 1913 Mac sold five of his scrub cows, and in their place bought two pure bred Holsteins. His herd was growing small, but his milk cans were more numerous.

Better Feeding Came Next

Not alone the questions of better stock and breeding engaged him. He began to study his feeding methods, and the problem of growing more and better feed. The spring of 1914 found Mac trying to grow a small patch of fodder corn and a plot of a mixture of oats, peas and vetches. The corn was a disappointment, but the O. P. V. was a good success. He cut it early and fed it when the pasture was short. The result was fully up to his expectations.

His tests this season showed that his herd yield amounted to 44,000 lbs.; this, with only six cows, two pure bred, two grades and the two best of

his scrubs. This showed him in a very practical manner the truth of the saying that "the better your stock, the greater your profits."

The two pure bred cows averaged 9,000 each, while the scrubs averaged but 5,000 lbs. Mac invested in a pure bred bull with a good record behind him. He sold his two scrub cows and a young bull from the pure bred cows. With the proceeds of this sale he bought two more pure bred cows. They cost him more than he got for those he sold, but he was satisfied with his deal.

A Silo Will be Next.

In 1915 Mac had three acres of oats, peas and vetch mixture. Part of this he fed green during the summer and fall. The rest he cured for hay. He found it hard to dry, but this year he intends to build a small silo, even if corn will not succeed in Cape Breton.

In last season's milking period Mac's cows produced 54,000 pounds of milk. His four pure bred cows produced three thousand pounds more of milk in 1915 than did his seven scrubs in 1912.

This year Mac is putting in a large amount of the O. P. V. mixture and turnips. Mangels are not always a heavy crop in Cape Breton, so he grows turnips instead. He will have nine cows this year, three grades and six pure bred cows. His interest in better farming is daily increasing. Already his farm shows the result of better methods, while his bank account is waxing fat every month. He is now turning his attention to the marketing end of the business; heretofore he simply sold his butter at the country store. This year he intends to sell direct to the consumer.

This was all the result of his cow-testing and the greater interest he took in the business of farming. Instead of being classed with the average, he is among the successful few.



The Man of the Hour

GREAT Britain, France and Italy are in need of wheat.

Their supplies in normal years came most largely from Russia, Bulgaria and Roumania. This year they must come from Canada, Australia, India and the United States.

Australia and India are so far away and ocean tonnage so limited that their supplies are of almost secondary importance. The United States is not a great exporter of bread products, the needs of her own people now almost equalling her production.

The need of the Empire is a greatly increased production of foodstuffs in Canada. The farmer is the man of the hour. With him, as much as the man in the trenches, lies the surety of victory. All forces should co-operate to increase the exportable surplus of breadstuffs this year. The farmer will do his part. The cities also must do theirs by supplying man power. Finally the banks can render a great service by financing the 1917 crop.

Fresh Air and Tuberculosis

CATTLE in well ventilated stables are not necessarily immune from tuberculosis. Even in California, where dairy herds live almost altogether in the open, the disease is spreading. The bacillus floats as readily in fresh as in foul air. The cattle in well ventilated stables, however, are more vigorous and better able to resist disease. They will produce more milk and larger and stronger calves. The only method of keeping a herd absolutely clean, however, is to use the tuberculin test regularly and eliminate all reactors.

And it is becoming increasingly important that tuberculosis be eliminated. City milk consumers are demanding milk from herds with a clean bill of health. Surplus stock from diseased herds cannot now be exported to the United States, nor will British Columbia take them. It looks like "Clean up because we have to."—J.W.

My Ideal Dairy Stable

It Has Cement Floors and Frame Walls

H. L. Connal, Dundas Co., Ont.

I LIVE on a border line, so far as barn architecture is concerned. My travels have taken me from Dundas county west through all the counties of Ontario to Essex. In all of the district the bank barn with the stone stable seems to be the favorite. From Dundas county east down through the townships of Quebec, the barns are built more on level ground and the stables have frame walls. I have had a good opportunity to observe many stables of both types, and while building now I would follow the light from the east.

The bank barn looks impressive. It has an "air" about it. But it is open to certain grave objections. It has been my observation that most bank barns are damp. Naturally, cellars are damp, because they are underground. I should think that they would be more difficult to ventilate. Certainly there is not the same opportunity to let in abundant sunlight from all sides as there is in the frame stable built on the level. These three factors: moisture, ventilation and lighting, all have their effect on the health of animals, particularly dairy cattle. I conclude, therefore, that the style of stable that is driest, most easily ventilated and lightest, is the best style. All of these conditions call for the well-made frame stable. Am I right?

Care of Cows at Calving

Some Advice from a Contemporary

"I AM just starting with pure-bred cattle," writes a subscriber of Hoard's Dairyman. "Will you please tell me how to handle a cow and calf after she freshens? How to disinfect the calf's navel and how to handle the cow?" The editors reply as follows:

"It is very important that a cow should freshen in good condition, and that she be prepared for her lactation period for some time previous to the time of freshening. She should have a rest for at least six weeks, and preferably eight weeks, between the time she ceases producing milk and parturition. It has been proved experimentally that a cow which is given this rest and freshens in at least fairly good flesh will produce more during her lactation period than one which has a shorter rest. Especially during the last few days previous to freshening, the grain ration should be of a light nature and preferably slightly laxative. Ground oats, wheat bran, and oil meal in a mixture is a very satisfactory concentrate allowance. It is best to feed a small supply of grain at this time, but roughages, as corn silage and clean, bright legume hay, may be supplied in liberal quantities.

Avoiding Navel Troubles.

"As soon as the calf is born, the liquid should be drawn from the navel cord and tincture of iodine liberally applied to the cord, both internally and externally. As an added precaution against navel infection of any kind, compound alum powder should be dusted on the cord several times during the first day.

"Opinions differ as to the length of time the calf should be left with the cow, but, unless the cow's udder is inflamed considerably, we advise that the calf should be taken away at the end of one or two days' time. Especially with cows which are heavy producers and which have a tendency to have milk fever, it is advised not to milk the udder completely dry at any time during the first three or four days after freshening.

"The cow should, of course, be in a clean, dry stall where she can be kept comfortable. She should not be disturbed and excited. The stall

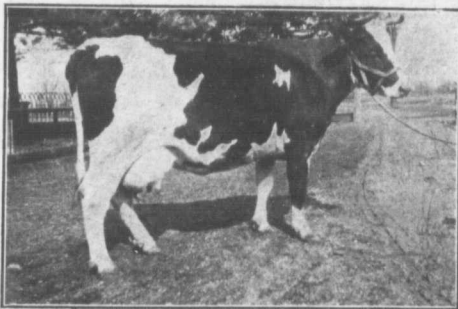


When Labor Was Plentiful.

should be well bedded and well lighted, and previous to the birth of the calf, should be thoroughly disinfected. A liberal supply of water should be furnished, and for the first few days after freshening should be lukewarm. Bad effects commonly follow the drinking of large quantities of cold water.

Feeding the Cow.

"There is no danger in feeding all of the clean, high quality hay the cow will eat, and in feeding fairly liberal quantities of such feeds as corn silage. However, grain should be fed in small quantities. As the production of milk increases



Pontiac Jessie—One of the Greatest of Canadian Holstein Cows.

Her record is 37.62 lbs. butter and 663 lbs. milk in 30 days, and 153 lbs. butter and 2,827 lbs. milk in 30 days, which places her second in the mature class in Canada. Elsewhere in this issue of Farm and Dairy her owner, Mr. Martin McDowell, Oxford Centre, Ont., tells of the breeding and feeding of this cow.

from day to day the supply of grain may be gradually increased at the rate of one-half pound per day. With heavy producing cows it may rise as much as three weeks before a maximum supply of grain is fed. When the cow fails to increase in milk flow any longer, no further addition should be made to the grain mixture. By lowering it slightly or raising it as the cow varies in milk flow, a good idea may be obtained as to the amount of grain she should have.

"It must be kept constantly in mind that success or failure in the care of a cow depends more upon the man who is trusted with that care than any set of rules or suggestions which can be made."

There is no more critical time in the life of the cow, and the most trifling precautions should never be omitted at calving.

A Three-Year Rotation

My Cropping Method in Detail

IN handling a field through a three-year rotation I find the following method a very good one:

We will begin with the field in clover sod, to be followed by roots or corn. If followed by roots I would give a field a good dressing of manure. After the hay was taken off this would then be ploughed under by turning a shallow furrow, thereby keeping the humus near the surface, which helps to retain the moisture. If the clover is to be followed by corn I would leave until spring, then apply manure, or, if land is level, it might be applied in winter time, thus saving much time in the spring. I would apply manure at the rate of 12 to 15 tons per acre. When plowing under, a shallow furrow should be turned in the same way as when plowing in fall for roots.

As soon as you are through plowing I would go over the field with a roller to press the sod down firmly. This would be followed by a disc harrow, crossways and lengthways. I would then go over the field with the roller once more, and then disc harrow again. Next use the smoothing harrow. If the land is not yet in good tilth it should be gone over once more with the disc harrow until the soil is thoroughly pulverized and a good seed bed formed. One reason why it is necessary to have the soil in good tilth is that it helps to retain the moisture in the ground. The loose, fine soil on top forms a blanket and keeps the heat of the sun from penetrating too deeply. The ground is now ready for sowing corn or roots. In the fall after the hoe crop has been harvested plow fairly deep.

The next year I would cultivate the ground in much the same way as was done the previous spring. Then sow oats, seeding down to clover, sowing about 15 lbs. red clover per acre. After seeding roll the field, which helps to conserve moisture by compacting the soil. Then harrow to loosen the top and prevent evaporation.

There are two implements I would like to recommend. The first is the new double cutaway disc harrow. It consists of two disc harrows, one running in front of the other. One throwing in and the other out. It takes more power to operate than the ordinary disc harrow, but is very effective in reducing the cost of preparing the soil for seed. The other implement is the disc plow. I have no hesitation about recommending its use for the eradication of scutch

grass. It proved very effective for that purpose on our farm. It throws the soil up very roughly, leaving a very uneven surface which enables the frost to get a good chance at the roots.—"Subscriber."

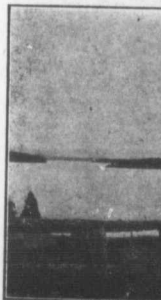
Where you grow peas and oats for hay, as we sometimes do, we take the opportunity to clean the land of weeds at the same time. This crop requires a comparatively small proportion of the season to reach the dough stage. The peas and oats may be seeded in June, and the land kept clean up to that time. Or the seeding may be made as early as possible, the land plowed after harvest and kept clean through the summer and fall. This is a splendid method of fighting weeds where a large area of hoe crop is impossible.—L.P.

Succulents

Experience

THE problem of a dairy cattle farmer by dairymen roots to provide 'nuch many objections, such as the expense and, in these difficulties can be materially to the ration a means by which increased in its first flow tained at a higher d wnter months. The r is, however, becoming tainly remain the big farmer during the con of the war at least, a means must be fo which succulents can vided the dairy cow in which will entail less ture of manual labor. lieve that the solution the silo since it can be at a comparatively low cost considering tons of al stored, and consider the fact that silage made from peas and oats alone, a crop whic is universally and succ grown, and which will green weight of from twelve tons per acre.

Peas and oats or oats can be sown for silage as soon as the e tended for threshing h seeded and the crop ready for putting into when the oats are in the stage before the thresh binder. We have been of two bushels and peas per acre. As time goes at this rate constitute a crop than when sown a first time. In other w oculation for the peas when the land is so in counted upon to constitute crop "then ready for th tion is, I believe, a most peas strengthen the r ents. There are two ob peas—first, the fact an



Succulent Feed for Dairy Cows in Alberta

Experience With Silage at the Dominion Experimental Station, Lacombe

G. H. HUTTON, Superintendent.

THE problem of securing succulent feed for dairy cattle in winter has been keenly felt by dairymen in Alberta. The growing of roots to provide such succulents has met with many objections, such as the high cost for labor and the expense and difficulty in storing. Where these difficulties can be overcome, roots add very materially to the ration for the dairy cow, and are a means by which milk production can be increased in its first flow after freshening, and maintained at a higher daily average throughout the winter months. The situation in regard to labor is, however, becoming more acute, and will certainly remain the biggest problem of the dairy farmer during the continuation of the war at least, and some means must be found by which succulents can be provided the dairy cow in winter which will entail less expenditure of manual labor. We believe that the solution lies in the silo since it can be erected at a comparatively low initial cost considering tons of material stored, and considering also the fact that silage can be made from peas and oats or oats alone, a crop which can be universally and successfully grown, and which will yield a green weight of from eight to twelve tons per acre.

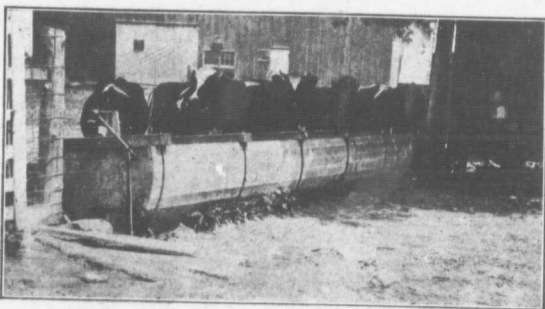
Peas and oats or oats alone can be sown for silage purposes as soon as the crop intended for threshing has been seeded and the crop will be ready for putting into the silo

when the oats are in the late milk or early dough stage before the threshing crop is ready for the binder. We have been sowing oats at the rate of two bushels and peas at the rate of one bushel per acre. As time goes on we find that peas sown at this rate constitute a larger proportion of the crop than when sown at the same rate for the first time. In other words, we believe that inoculation for the peas is necessary, and that when the land is so inoculated, peas can be counted upon to constitute a fair proportion of the crop when ready for the silo. Such a combination, I believe, a most satisfactory one, as the peas strengthen the ration in protein constituents. There are two objections to the sowing of peas—first, the fact as already mentioned that

inoculation appears necessary, second that the cost of seed peas is rather high. To overcome these difficulties I would suggest that culture for the inoculation of land for peas be secured. This can be obtained free from the Dominion Botanist, Central Experimental Farm, Ottawa. The growing of a small block of peas only to provide seed is a method for overcoming the other difficulty and varieties such as Arthur or English Grey or Solo can be recommended. They should be sown as early in the spring as the land is in shape, and on the highest ground available.

Three Men in the Silo.

As had already been indicated, the crop in-



An Old Threshing Tank Put to Good Use. The Farmyard Water Supply of J. W. Richardson, Haldimand Co., Ont.

tended for the silo is cut while the oats are in the milk stage, and is at once run through the cutting box and cut as fine as possible, going into the silo absolutely green. There should be at least three active men in a silo twelve feet in diameter and men who will keep on the move continually in order to insure that the silage be thoroughly tramped, particularly at the edges as the centre will in a measure take care of itself since the pressure from above, as the silo is filled increases. The amount of oxygen remaining in the silage will depend upon the amount of tramping and the amount of oxygen will be the determining factor in the keeping qualities of the silage. Therefore, it is important that the silage be thoroughly tramped. After the silo has been filled it will

settle, and may be filled again in the course of five or six days. In this way another ten to fifteen tons can be accommodated and a silo so filled thirty feet high and twelve feet in diameter will hold eighty to ninety tons according to the amount of moisture in the crop at the time it is cut.

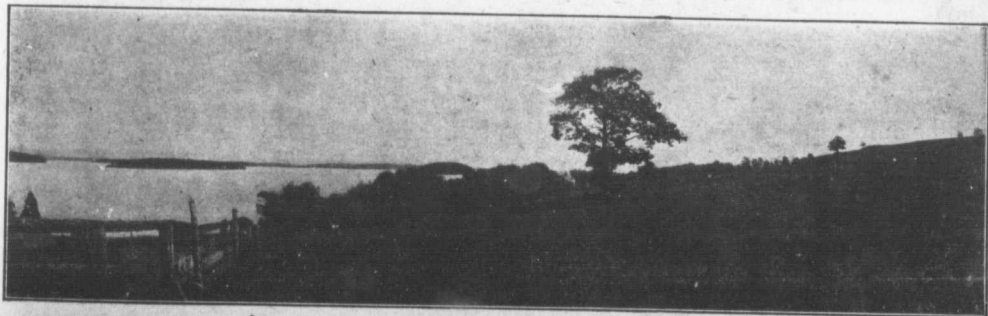
We usually feed some bulky fodder such as hay or oat straw, in conjunction with silage, as well as the usual grain ration. When so fed cows on full flow of milk will consume around forty pounds a day. Even though the silage freezes around the edges of the silo it will come out in flakes, and the freezing does not appear to affect injuriously its feeding value.

Experiments which have included the whole dairy herd have been carried on during the past two years to determine the feeding value of this silage as compared with the same feed cured in the ordinary way in the shock as green feed. Both years the results have been very decided in favor of ensiling the crop, showing a having in the

cost of producing one pound of butter of as much as four cents per pound, and as much as seven cents per pound, with silage made from peas and oats, as compared with silage made from corn. However, it is to be remembered that the corn we have been able to grow here has not reached the same stage of maturity as the oats. Therefore, those districts that can bring the corn to the dough stage undoubtedly would find it possible to produce butter for less per pound with corn silage than we have been able to produce butter here for with the same kind of fodder.

In making determination of the cost of butter, ensilage has been valued at \$3 a ton, and cured green feed at \$10 a ton.

When the other spring grain crops are safely in the ground there is still time to think of sowing a few acres of an annual pasture mixture to help out the pastures this summer. A mixture of one bushel each of spring wheat, oats and barley, and seven or eight pounds of clover seed to the acre, seeded now, will afford fine pasturage in another four or five weeks. Turn the cows in when the grain is seven or eight inches tall. As the cows eat it down the stand will thicken and afford good pasturage for the rest of the season. Of course, best results are obtained when cows have the run of both annual and permanent pasture. When first turned in annual pasture blots is to be feared unless the cows have just been filled upon dry hay or corn silage.—C. L. M.



In the Lakes District of Eastern Ontario where thousands of city dwellers annually resort to enjoy country life for a few weeks.

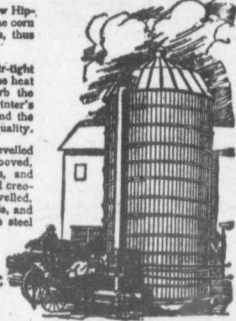
Though Moderate in Cost the TORONTO 1917 MODEL SILO Makes More and Better Ensilage

—more ensilage, because the new Hip-Roof makes it possible to tramp the corn firmly right up to the top of the walls, thus adding tons to the effective capacity.

—better ensilage, because the six-tight walls of 2" creosoted spruce retain the heat and aid fermentation; do not absorb the acid; and protect the ensilage from winter's frost. Thus there is no waste around the outside, but all the ensilage is of first quality.

The staves are of No. 1 Spruce, bevelled to fit the curve, double tongue-and-grooved, joined at the ends with steel splices, and thoroughly soaked with pine tar and creosote. The doors are also 2" thick, bevelled, rabbeted, snug-fitting, interchangeable, and easily opened from the outside. The steel hoops and malleable lugs are guaranteed to stand the maximum strain.

The TORONTO Pneumatic Ensilage Cutter,



with its Thom's Patent fan arrangement, and convex Sheffield steel knives, will cut the corn and fill your silo with less power and bother, yet greater speed, than any other machine of the same size on the market. With this and a TORONTO Engine of your own, you could cut your corn at just the right stage, and avoid the serious losses that come from delay and leaving the corn lying in the field.

Our Booklet, "Toronto Ensilage Equipment", describes the principles and essentials of making good ensilage. From start to finish. It's—write for it!

We also manufacture Engines, Windmills, Pumps, Stable Equipment, Etc.

Ontario Wind Engine and Pump Co. Limited
Dept. "D"
TORONTO and MONTREAL.



CLEAN CULTIVATION PAYS

To keep corn free from weeds, and to keep the soil in condition to give the corn a chance to make a good crop, use an Oliver cultivator. It does first-class work, and it is besides an easy machine to handle and guide. The shovels are held to even depth and steady movement, by the ratchet stand, at which they are set. The machine works in hard or soft ground, sand or clay, and cultivates always to an even depth, which is regulated by handy levers. The Oliver is a pivot frame cultivator with a patented rest bar guide, an automatic frame balance and gangs that move parallel to each other.

The parallel gang movement is a great feature. It keeps the shovels square with the soil so that all the ground is cultivated to the full width of the gangs as they are moved from side to side. It makes it easy for the operator to dodge irregular hills without damaging them.

Oliver cultivators are made in two styles. The No. 1 is for rows 30 inches apart or wider; the No. 4 can be set to cultivate rows as narrow as 14 inches. Special attachments for cultivating other crops and for cutting thistles will be furnished on order.

International Harvester Company of Canada, Limited

BRANCH HOUSES

WEST—Brandon, Man.; Calgary, Alta.; Edmonton, Alta.; Estevan, Sask.; Lethbridge, Alta.; N. Battleford, Sask.; Regina, Sask.; Saskatoon, Sask.; Winnipeg, Man.; Yorkton, Sask.
EAST—Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; Quebec, Que.; St. John, N. B.

FEEDERS CORNER

Conducted by E. S. Archibald.

Feeding Crippled Pigs

FOR the past four months we have been feeding a bunch of 10 pigs. Six were good ones and grew steadily from the first and we marketed them at six months old at a good weight. Four, however, became badly crippled when we first got them and at six months they weighed only 125 to 140 lbs. Would it pay to put these pigs into stoves, trusting that they would recover their vigor and feed them for two or three months yet? What advice would you advise—P. C. Haldimand, Ont.

I would strongly advise selling the crippled pigs for what you can get. It usually takes from 50 per cent. to 100 per cent. more feed to make gains in crippled than in healthy pigs, and there is always the risk of total loss. At any time, but more especially when feed prices are high, it pays to feed only growing healthy pigs.—E. S. A.

Silo Material

WE are about to build a silo, but have difficulty in making choice between the cement and the wooden type. Agents for the latter told us that cement will peel off and that these pigs mixed in with the ensilage will injure the cows' teeth. Is this the reason for the use of cement? Is there any ensilage for several years will lose their teeth, or is there anything in the statement we so often hear that ensilage is hard on teeth? But I do want to know about the peeling of the cement. It is important.—J. E. F. York Co., Ont.

The choice of type and make of silo will be governed largely by the money which the correspondent wishes to invest therein, as well as the cost of labor and building materials. The items to consider in making his choice are: cost per ton capacity, efficiency, durability and proof against fire. Undoubtedly a poorly-constructed concrete silo at a great disadvantage in all these items when compared with a good stave silo. As to cost per ton capacity, a stave silo made locally is least expensive, the patented stave silo next, and under average conditions the concrete silo the most expensive in the initial cost. All these makes of silos are about equally efficient if properly constructed. The durability is also dependent on proper construction. Undoubtedly the best makes of patented stave silos are more durable than local-made stave silos, owing to the treating of the wood with preservatives. In like manner the durability of the concrete silo is dependent on the quality of the concrete, sand and gravel, the strength of reinforcements, and the finish coating of strong cement wash or plaster coat. A well-made silo of this sort will not peel off, although there is apt to be some slight action of the acids of ensilage on the concrete. The correspondent may obtain valuable literature from the cement companies regarding proper concrete construction. The theory of ensilage affecting the teeth of cattle was common before concrete silos were in use. Practice has demonstrated that ensilage of proper quality has no ill effects on cattle, and is a most economical and wholesome food.—E. S. A.

Pontiac Jessie

EDITH, Farm and Dairy.—In compliance with your request I send the following notes on Pontiac Jessie, whose record, 37.62 lbs. of butter, 664 lbs. of milk in seven days and 153 lbs. butter, 2827 lbs. milk in 30 days—places her second in the nature class in Canada.

Pontiac Jessie (15013), was bred by her present owner, her sire being Pontiac Atlas De Kol, imported, in dam from Michigan by J. Rattie and her dam being Bonanza Jess 4th, the foundation cow of the Centre View

herd of pure-bred Holsteins.

On Dec. 29, Pontiac Jessie freshened, giving us a fine heifer calf sired by Riverdale Walker Segis. She was placed on test on Jan. 7th, and continued for 28 days, the first eight days being cut off. Her best days' work was on Jan. 28th, when she was at the rate of 39.35 lbs. butter for the day. That she finished strong, is shown by the last seven days of the test when she made 67.62 lbs. milk and 24.47 lbs. butter.

Pontiac Jessie is a large cow weighing around 1,600 lbs., which enables her to stand the strain of heavy production and I believe her "work out" during the test just finished is only a preparation to come back and raise her present record. During the test she consumed large quantities of roughage and always had a good appetite. Her grain ration never exceeded 25 lbs. per day and she could handle 103 lbs. roots daily quite nicely.

Pontiac Jessie has been a winner at Guelph on two different occasions, being champion two-year-old in 1912 and 1st in the three-year-old class in 1913. Her daughter, Pontiac Jessie 2nd, was also champion two-year-old at Guelph last December in Martin McDowell, Oxford Centre, Ont.

Farm Management

Clover in Silo

HOW would it work to cut clover and put it in silo the last of June for green feed when pasture is dried up?—D. S. Pontiac Co., Que.

In reply I would say that in my opinion this plan should not work very well, provided the clover is run through a cut-box. If the clover was very short and fine, it might possibly keep without being run through the cut-box, but there is considerable risk involved in attempting to preserve it without taking this precaution. This opinion is based upon some three or four years' experience here in putting such material in the silo.—J. H. Grisdale, Director, Ex. Farm, Ottawa.

Land Plaster as a Fertilizer

WHAT value has land plaster as a fertilizer over lime and what proportion of time is in land plaster?—J. F. Muskoka Dist., Ont.

Land plaster, or gypsum, exerts a similar effect to that of lime in improving the mechanical condition of clay soils, as it serves as a source of calcium, as a plant food, and it serves to stimulate the beneficial soil organisms on the roots of leguminous plants like clovers, alfalfa, peas, beans, etc. In these ways it acts in the same manner as lime, but it will not correct the neutralize the acid of soil as does lime. It therefore cannot take the place of quicklime, slaked lime, marl or ground limestone for this purpose.

The two chief agricultural functions of land plaster are its property of flocculating clay (gathering it in masses) and its effect on the insoluble potash compounds, setting free this element in form available to the plant use. The first of these functions makes it valuable for the dressing of heavy clay loams, and the second constitutes it an indirect potash fertilizer, though, of course, it does not add to the sum total of the soil's potash. It is this property that makes land plaster specially beneficial as a top dressing for clover, a crop that particularly responds to potash manuring. The usual application is in the neighborhood of 500 pounds per acre.

Commercial land plaster is somewhat variable in composition; poor samples may not contain more than 60 per cent. sulphate of lime, while good grades may reach 90 to 95 per

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Standard Tube & Fe

Woodstock,

I would like to have
logue and prices.
Doesn't put me under

Name

Address

Are you out to save money or to waste it? Are you out to take 3 days to a job instead of 1? Do you want a fence that lasts or not?

THESE may seem like idle questions. Yet in this war-time, when labor is so scarce and material costs so much, here is the standing wonder to STANDARD Tube and Fence users. Why will farmers put up cheap, "made-to-sell" fences, and also why will they waste hours of back-breaking labor, digging holes three times too big for a fence post, then stick the post in, fill it up, have the fence rot to pieces and have to go through the whole performance again?

CHEAP FENCING DOESN'T PAY--US OR YOU

We are more mindful of our Quality-guarantee this year than ever before, and so should you be. Steel is almost a "precious" metal. Galvanizing materials are sky-high too. So look out for "cheap" or skimped fence. We say that whether you buy "STANDARD" Fence or not. A poor fence is an aggravation, an expense, and finally a total loss.

"Standard" Fence carries a real Guarantee

It is full Government Standard No. 9 gauge wire. The galvanizing is heavy and perfect. The uprights are full gauge, too. The spacing is always true and uniform. The tests that STANDARD Fence gets before and during weaving are such you'd wonder any fence could stand them. No man's money can buy anything better, but if you ever have any complaint, just write us, and you'll see what a real guarantee means.

Use Standard Steel Tube Fence Posts

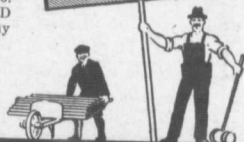
This is the modern, money-saving plan over wooden posts, which always were hopelessly wasteful. STANDARD Posts are driven into the ground with a few mallet strokes, and there they stay. They don't wobble or sag. They don't crumble and rot. They don't blow down. They don't harbor crop-destroying insect pests. They don't cost as much as cedar, and they hold the fence better. No staples to buy, we furnish special hooks.

But here's the big labor and money-saving point: Let a man and boy go out with a wheelbarrow and mallet, and they'll put in more posts in a day, and do it better, than three men and a boy digging holes and putting in posts the old way. Just figure out the saving that means.



WE COST YOU

The wages of three men and a boy. We're the old-fashioned wood-post, sore-handed, broken-backed gang that every farmer abominates. Still we want your order, because we look cheap in some localities and, well, just because you've always used us.



WE COST YOU

Only one man's time and a boy's. The STANDARD Steel Tube Posts we use cost less than wood in money and service. We do a job you'll be proud of and will last longer than the boy who put them in will. We deserve your order if you want to save money.



Steel Fence Posts Fencing



Our Fence Hooks (supplied free) have a wonderful grip.

SIXTY FEET APART, YET THEY STAND A HEAVY GRAPEVINE LOAD.

Standard Tube & Fence Co., Ltd.
Dear Sirs--We are in receipt of your letter of the 24th inst. and the contents are noted. In reply, we beg to say that the steel tube fence posts, which we purchased from you in March, 1915, have given us great satisfaction. We used these posts along with cedar posts, alternating them, and spacing them sixty feet apart, and they have given us splendid service.

Very truly yours,
St. Catharines.

THE ONTARIO GRAPE GROWING & WINE MANUFACTURING COMPANY.

Take a look at our famous Knot. This type was originally invented by us, and, although widely copied, our special gradual-curve improvement, whereby the grip is visible, but the galvanizing never chipped or cracked, has never been equalled.

STANDARD Post Hooks are supplied free, and they give a taut, even grip and save the labor of driving staples.

Our whole business is built up on big service to farmers. Use STANDARD Fence, STANDARD Posts and Staples, and banish the broken-down-fence bogey, and banish the weary, wasteful, costly post-hole digging.

STANDARD Fencing is shipped the same day as order is received, \$10 worth and over goes freight paid anywhere in Eastern Canada. All types of fencing gates, tools, etc. Send us the Coupon to-day.



Standard Steel Tube Fence Posts Plain and Split (or self-anchoring)

STANDARD TUBE & FENCE COMPANY, LIMITED
WOODSTOCK, ONT.



Standard Tube & Fence Co., Limited
Woodstock, Ontario

I would like to have your latest catalogue and prices. Asking for this doesn't put me under any obligation.

Name

Address

C.P. 45-17

Why a Good Seed Bed?

THE food of plants is all taken up in liquid form. It is dissolved by the soil water from the soil particles, and since the surface of the particles only is exposed to the dissolving action of the water, the larger the surface the greater the amount of food dissolved and made available for the plant. The surface of the particles may be increased in two ways—by making the particles finer and by deepening the area in which the roots feed.

If a ball of earth the size of a base-

ball is broken in two through the centre, the outside surface is increased by the area of the two broken surfaces. If each of these pieces is again divided, the area is still further increased, and so on indefinitely. A cubic foot has a surface of six square feet. When broken down into particles the size of those found in good loam, the total area of the surface is several acres. Good tillage, by which the lumps in the soil are disintegrated, has this effect, and in proportion as it is carried on, the surface of the soil exposed to the action of water is increased, and the amount

of plant food rendered available is also increased.

When cultivation is shallow so that the area in which the soil is pulverized is limited, the opportunity for the water to bring plant food into solution is also limited. Not only the fining, but the depth to which the fining process is carried, has an effect in giving the soil water an opportunity for dissolving plant food.

The cut shown herewith exemplifies the manner in which roots develop in the soil. The roots of good depth. Only the main roots are shown, but it will be seen by the way

in which these ramify in every direction that their growth is not hindered by coming in contact with impervious layers of lumps of soil. The fine air-like roots which cluster around the main roots in countless millions, and through which the food-laden soil water is absorbed, are not shown, but it will be seen that they are spread out throughout the soil by the main



roots in such a manner as to gather in food from the widest possible area. The finer the particles of soil the stronger will be the solution of plant food with which they come in contact and the stronger will be the growth of the plant which they supply. Good crops can only thrive on a fine, deep seed bed.

The Limer and Soil Packer

THE limer and the soil packer are two implements that are destined to fill a large place in our farming operations in the future. At present they do not enjoy the popularity that they deserve.

The limer will grow in popularity as the peculiar soil requirements of the clover and alfalfa crop come to be understood. Neither clover nor alfalfa will grow well in soils that are deficient in lime, and alfalfa in particular requires large quantities of lime for its best growth. Many soils in eastern Canada, and this includes a large portion of old Ontario, are deficient in lime. This deficiency explains the failure of hundreds of farmers to get a profitable crop of alfalfa from their land. The remedy lies in liming. The old fashioned way of spreading lime with a shovel from the back of the wagon, is a disagreeable work. If it is not very carefully done, some of the lime will be distributed too heavily, and the humus, and therefore the life, will be burned out of the soil. The limer distributor, which works on somewhat the same principle as the seed drill, can be used on any day, no matter how windy, and it gives an even distribution over the field. Hundreds are now in use, and thousands should be.

The soil packer does a part of the work expected of the roller, but does it more efficiently. There are various types of machines on the market. One type consists of a series of wheels, one inch in width, and with a one-inch space between each wheel. The tire of the wheel, if it could be called such, is rounding. When run over a loose field, the sub-surface soil is firmed more efficiently than any roller could ever do it, but at the same time a mulch is preserved on the surface. Such crops as sweet clover, spring grains and almost all of the grasses require a firm seed bed, and in getting such a seed bed the soil packer can play an efficient part.—L. B. W.

Costs No More Than a "Span"—



It seems almost impossible, but it is true that you can get a handsome, comfortable, speedy 5-passenger Ford motor car for no more than it would cost you for a span of good driving horses, a carriage and harness.

The initial cost of a Ford car is so small that every progressive farmer can readily purchase one.

And who wouldn't rather motor to town, to church, to the railway station, to the neighbor's, than drive?—especially when it is three times as fast to motor, more comfortable and less expensive.

The low cost of running the Ford makes motoring possible for the masses, where it was formerly a rich man's luxury. It makes motoring a matter of good business, especially for those whose time is valuable. And with labor so scarce no one needs the time-saving Ford so much as the busy farmer!



Ford

Touring - - \$495

Runabout - \$475

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Ford Motor Company of Canada, Limited

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CLOVER SEED

No. 1 Mammoth
No. 1 Red Clover
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No. 1 Alsike
No. 2 Alsike
No. 2 Timothy
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purely and
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and genuine
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White Blossom
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of mustard
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Learning Fodder
Improved Lanes
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Simpson's Early
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Golden Glow
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Terms—cash
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We pay the freight
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Our 272 Egg Kind
L. R. Guild, Box 7

CALVES WA

Good dressed
from 100 to 150
large fat hens,

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Swet Fresh

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THE HYLO SLO is

Early all-day, fast

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More Eggs and Poultry

There never was a time when an increase in poultry production was as necessary as it is at present. The demand was never as good, and prospects indicate that this demand will continue for some time to come. With the scarcity of meat Canadians are eating more eggs, and Great Britain needs all the eggs we can supply.

As a business proposition increased production of poultry products has much to commend it. In normal times Great Britain eats a million eggs a day. Present consumption is less than this owing to the war having cut off many sources of supply. Canadian eggs are good eggs, and are at a premium in England. Several cents a dozen more are paid for them than for eggs from some other countries.

For two years Canada has been producing a small surplus and there is no reason why the surplus for 1917 should not be from five to ten times what it was in 1916. We have the climate, we have the feed, and though labor for other lines of work is scarce, there is plenty of labor suitable for poultry keeping.

Unfortunately, efforts to increase production will not affect the supply of eggs until the early pullets start to lay next fall. To help the egg supply in the meantime, make sure that laying hens are well fed; give them exercise, fresh air; market all weaklings and non-producers. Use vigorous males; have the fertility strong; have as few infertiles as possible; make every egg count. Aim to have hatching done between March 15th and May 25th for general purpose breeds, and for light breeds not later than June 15th. Give special attention to rearing the chicks.—Domination Department of Agriculture.

Waterglass Eggs

Mrs. Jaa. Cook, York Co., Ont.
WATERGLASS eggs are good eggs. For years we have been preserving sufficient to meet all family needs from late August until the following March. The eggs keep perfectly. I do not know that they would be good for boiling in the shell, but they poach beautifully. We get the waterglass in tin cans, it being obtainable at almost any drug store or even grocery. Directions for using are given on each package. We preserve the eggs in large crocks that we once used to store butter before we started to ship cream. These crocks are kept in the cellar where it is cool and there is no danger of freezing. It is important to keep the crocks tightly covered to prevent evaporation, and in case evaporation does lower the mixture below the top eggs, boiled water can be added to bring up the level again. An important point is to store only eggs that are new laid and infertile. Lately we have begun to discover that there is a growing demand for these eggs among our neighbors; village neighbors who do not keep hens. In some cases waterglass eggs are actually preferred to cold storage eggs. We have sold some, and they have given good results, and it is a trade that we intend to develop. Eggs that sell in normal years for 20 or 23 cents a dozen might just as well be stored in waterglass at a cost of two or three cents a dozen, including the crock, held a few months, and retailed at 40 cents a dozen or more.

CLOVER SEEDS High Grade Government Standard Seeds

No. 1 Mammoth Red Clover	\$15.00
No. 1 Red Clover	13.50
No. 2 Red Clover	12.50
No. 1 Alsike	13.50
No. 2 Alsike	12.50
No. 2 Timothy (this seed grade Extra No. 1 for purity and germination)	4.75
No. 3 Timothy (this seed grade No. 1 for purity and germination)	4.50
No. 3 Timothy	3.75
White Blossom Clover (Ontario grown, free of mustard)	13.00
No. 4 Alfalfa (Northern grown)	13.00

SEED CORN.

Learning Fodder	\$2.00
Improved Learning	2.25
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Red Cobb Fodder	2.60
Compton's Early	2.50
Stanford White Flint	2.75
Golden Glow	2.25
Wisconsin No. 7	2.25
Pride of the North	2.75

Terms—Cash with order, bags extra at 30 cents each. We pay the freight on all orders of \$25.00 or over, east of Manitoba. Send for samples if necessary.

TODD & COOK, Seed Merchants STIOUVILLE, ONT.

A FORTUNE IN POULTRY

Increase your egg yield by purchasing a setting of eggs or brood of Haby Chicks of our high record Red Fok Wandering Leghorns or Red d. 1917 Mating List containing 65 photos of stock, buildings. Feed and tonic formula.

Our 272 Egg Kind free. L. R. Guild, Box 76, Fockwood, Ont.

CALVES WANTED

Good dressed calves wanted from 100 to 150 lbs. each. Also large fat hens, alive.

WALLER'S

713 Spadina Ave., TORONTO.

Poultry Leg Bands, Ear Tags and Buttons For stock

Multiple adjustable Leg Bands. One size fits all. Single sized ear tags. Ear tags with numbers. Ear tags with names. Ear tags with dates. Ear tags with names and dates. Ear tags with names and dates. Ear tags with names and dates.

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HYLO SLO

Sweet Fresh Ensilage down to the last forkful

THE HYLO SLO is perfectly adapted for the use of the farmer or stock raiser. It is made of the finest quality of corn, clover and alfalfa, and is guaranteed to be the best silage ever made. It is easy to digest and gives the most nourishment to the animal.

Write for price and catalogue. 42175 York St. Goshen, N.Y.

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RENNIE'S QUICK - GROWING SEEDS

Early Valentine Bush Beans, ready to pick in 35 days, 4 ozs. 15c, lb. 40c.
 Early Model Blood-red Table Beet. Pkg. 10c, oz. 20c, 4 oz. 50c
 First and Best Cabbage, solid heads. Pkg. 10c, oz. 30c, 4 oz. 90c
 Early Gem Red Table Carrot. Pkg. 5c, oz. 25c, 4 ozs. 65c
 Citron for Preserving, red seeded. Pkg. 5c, oz. 15c, 4 ozs. 40c
 Early Malcolm Sweet Table Corn. Pkg. 10c, lb. 40c, 5 lbs. \$1.90
 Prize Pickling Cucumber (great cropper) Pkg. 5c, oz. 20c, 4 ozs. 50c
 Earliest Wayhead Head Lettuce (Pkg. 10c, oz. 30c, 4 ozs. 90c
 Early Hackensack (Sugar) Muskmelon. Pkg. 5c, oz. 20c
 Richard Seddon Bush Garden Peas. Pkg. 5c, oz. 20c, 4 ozs. 50c
 Select Yellow Dutch Onion Sets. Pkg. 5c, oz. 15c, 4 ozs. \$1.75
 Earliest Scarlet Olive Radish. Pkg. 5c, oz. 10c, 4 ozs. 30c
 Extra Early Milan Turnip (earliest grown) Pkg. 5c, oz. 20c, 4 ozs. 50c.
 Giant White Feeding Sugar Beet, for cattle. 4 ozs. 15c, 1/2 lb. 25c, lb. 40c.
 Rennie's Giant Yellow Intermediate Mangel. 1/2 lb. 25c, lb. 45c
 Rennie's Derby Swede Turnip, for stock feed. 1/2 lb. 37c, lb. 70c
 Improved Jumbo Swede Turnip (Elephant) 1/2 lb. 37c, lb. 70c
 Rennie's Kangaroo Swede Turnip (very hardy) 1/2 lb. 35c, lb. 65c
 High Grade Compton's Early Yellow Flint Seed Corn, Bus. \$3.25, 5 bus. \$16.00.
 High Grade White Cap Yellow Dent Seed Corn. Bus. \$2.75
 Extra Early Six Weeks Seed Potatoes. Pkg. \$1.00
 Extra Early Eureka Seed Potatoes. Pkg. \$1.00
 Seed Corn and Potato Prices do NOT include freight charges

"Pakro" Seedtape. "You plant it by the yard." 2 pkts. for 25c. Ask for descriptive list. Rennie's Seed Annual Free to All. Cotton bags 30c each extra. Order through your LOCAL DEALER or direct from

RENNIE'S SEEDS Wm. RENNIE Co., Limited King and Market Sts., TORONTO Also at MONTREAL WINNIPEG VANCOUVER

Single Comb White Leghorns

Get in right this season by ordering BABY CHICKS from our noted heavy winter layers. Our stock has been Bred-to-Lay and Pay for generations. Baby chicks \$15 per hundred. Safe arrival at destination guaranteed.

F. R. OLIVER, Roseheath Poultry Farm, RICHMOND HILL, ONT.

KEEP YOUR HORSES IN PRIME WORKING CONDITION

SOUND legs pull big loads. No horse with a Spavin, Splint, Curb, Ringbone, has been keeping their horses sound by using Kendall's Spavin Cure—the old rich lead—, unless a Jack Spavin in Amherstburg, Ont., wrote on April taking off a bog spavin. It is the best liniment for sprains you can get for man or beast. I would like to have a copy of your "Treatise on the Horse."

KENDALL'S SPAVIN CURE acts quickly, leaves no scars or blemishes, and costs little—1¢ a bottle—5¢ for 25. Get our valuable book—"Treatise on the Horse"—free at your Dr. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A.

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The Real Asphalt Roofing

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No business can be successfully conducted without outside help and suggestions. The business man has his business magazine, the lawyer his legal paper, and the physician his medical journal. For the same reason, the dairymen require Farm and Dairy.

In Union There is Strength

Central Office News

VERY important decision was reached at the recent meeting of the directors of The United Farmers' Co-operative Company, when the Manager, Mr. C. W. Gurney, and Mr. E. A. Van Allan, of Ontario, one of the directors, were authorized to visit Montreal some time soon to find what buying connections can be established with Montreal firms, so as to enable the Company to provide better service for the farmers' clubs in the eastern portion of the province, as well as for any clubs that may be organized in the English-speaking districts of Quebec. The freight rates are so high from western Ontario that it has been found impossible to give clubs in the eastern portion of the province the service that could be provided here by good buying connections established at Montreal.

Recently a strong desire has been expressed by farmers in some of the English sections of the province of Quebec to have farmers' clubs organized in their sections. In time it will be necessary for the Company to have a business office at Montreal. The step decided upon is the first move in such a direction. It was taken as a result of the earnest efforts of Mr. Van Allan, who pushed the matter vigorously at the meeting of the board of directors because of his special knowledge of conditions in that portion of the province where he lives.

The directors of the Company also decided that action should be taken on behalf of the farmers in reference to the application that has been made by the railway companies for permission to increase their freight rates by 15 per cent. A committee composed of Mr. H. B. Cowan, of Farm and Dairy; Mr. E. C. Drury, of Barrie; and Mr. B. C. Tucker, of Harold, was appointed to gather information and take such steps as might be necessary to see that the farmers' interests are protected in this matter. The committee is already in touch with the officers of the Canadian Council of Agriculture in Winnipeg in order that joint action may be taken.

Grain Prices Will Be High.

President T. A. Cramer, of The Grain Growers' Grain Company, of Winnipeg, who was present at the meeting of the board of directors for an hour or more, stated that seedling conditions in western Canada this spring are the worst in ten years. They are very poor through large sections of the United States, and conditions have been so bad in the Argentine Republic that the Government has placed an embargo on the exporting of any wheat before next February. He stated that there is likely to be a great shortage of wheat this year in spite of all the efforts being made to increase production, and intimated that prices are likely to rule high.

Messrs. L. Schnurr, Shallow Lake; R. H. Halbert, Melancthon; and C. W. Gurney and J. J. Morrison, of Toronto, were appointed to meet with members of the Organization of Resources Committee to discuss methods of cooperating with that body in efforts to help the farmers of the province increase their production.

Watch For Unfair Competition.

An interesting fact has come to light recently. It will be remembered that some months ago a firm which had been doing business with The United Farmers' Company and which had succeeded in securing a list of the farmers' clubs of the province, began to compete with The United Farmers'

Company and to try and sell direct to the local farmers' clubs. This firm also threatened a lawsuit against The United Farmers' Company, which was never proceeded with. This same firm has recently succeeded in engaging one of the clerks that has been associated with The United Farmers' Company for a long time and has been familiar with the details of considerable of its work. Actions of this kind may not have any particular significance, but under existing conditions there is reason to believe that the motive that prompted this firm to take away help from The United Farmers' Company is not one that has the best interest of the United Farmers' movement at heart.

Mr. Halbert in Lanark County

THE president of The United Farmers' of Ontario, Mr. R. H. Halbert, recently addressed a series of meetings in the Perth district of Lanark County. His itinerary included the clubs of the Tay, Perth, Balderston and Middleville and a new club organized at Drummond's Centre. The meetings were all well attended and the club members were delighted with Mr. Halbert, who injected new life into the organizations.

In his address Mr. Halbert urged that farmers should organize as men of all other occupations are organized. Said he: "The men that are shouting patriotism are not always the most patriotic. Our interests have been shoved behind while other interests have been spoon fed. It behooves us to-day, when increased taxation faces us, to stand for our rights as an organized body. We should not be slaves to a fixed market and a high protective tariff."

Much more Mr. Halbert said on organization and the need of it. He succeeded in giving his hearers a vision of the importance of agriculture and the part that the United Farmers intended to play in securing for the farmer a square deal.

A New Club in New Ontario

EDITOR, Farm and Dairy.—The U. F. O. like an epidemic, is spreading. Every day in this country, which was in early days, by many people, counted only a place for frogs and mosquitoes in summer and the frozen north in winter, but which the writer has heard called "the hub of creation," since white men transformed it. Well, sir, news of the success of the Bar River Farmers' Club is spreading abroad, for about two weeks ago the president and secretary were called to attend a meeting of the farmers of Laird and Tarbut, at the home of Mr. Albert Davidson. On arriving there they met with an interested and representative crowd of men, eager to discuss cooperation, prepared to form a farmers' club, required but a few explanations to satisfy them. A very promising club organized with Mr. Albert Davidson as president, Mr. C. McManion, secretary, and Mr. Carson, Moore, as president. A board of directors consisting of Mr. John Armstrong, Thomas Murray, William Bradshaw and Nelson McCoy. This club is starting off at a good pace and promises to be very strong.

The car of oats purchased from the west by the B. R. Club came in good time and proved a decided success and was a boon to many—Gordon Evey, Bar River, Ont.

Too Close Planted

Young Trees at

AS soon as the nursery the box or a bundles and heel them until ready to plant. deep enough so that all roots covered with air holes. It is a good the roots with water out. One of the young trees falling care between the planting.

Takes the trees to with an old blanket wet. The holes for be large enough so need be bent. It enough so that the about two inches deep in the nursery row. be planted deeper, are so much shorter likely to move it less planting. There are of trees in our present away from the west. If these winds come west, lean the trees that direction.

Pruning the roots a third to one-half of one-quarter inch be removed, leaving showing living wood faces very soon procambium from the rapidly grow. Remove dead roots, cutting back wood.

Pruning the top after planting. It is preferable to do the opportunity for the final selection of is greater. It is best permanent branches alternate and opposite, a crotch under a Thousands of dollars to the growers of the



This young orchard is standards, are planted too



Too Close Planting. An Obstruction to all Cultural Operations.

Young Trees at Planting Time

AS soon as the trees arrive from the nursery take them out of the box or sacking, untie the bundles and heel them in the ground until ready to plant. Dig trench quite deep enough so that it is easy to get all roots covered with soil leaving no air holes. It is a good idea to sprinkle the roots with water if they look dried out. One of the causes of so many young trees failing to live is lack of care between the nursery and re-planting.

Take the trees to the field covered with an old blanket kept thoroughly wet. The holes for the trees should be large enough so none of the roots need be bent. It should be deep enough so that the tree can be planted about two inches deeper than it was in the nursery row. The tree should be planted deeper because its roots are so much shorter and the wind is likely to move it less with this deeper planting. There are a great number of trees in our present orchards leaning away from the prevailing winds. If these winds come from the north west, lean the trees when planting in that direction.

Pruning the roots is important, one-third to one-half of all tap roots over one-quarter inch in diameter should be removed, leaving a smooth surface showing living wood. Clean-cut surfaces very soon produce a calus of cambium from which young roots rapidly grow. Remove all broken and dead roots, cutting back also to living wood.

Pruning the Top.

Pruning the top may be done before or after planting. In the case of apples it is preferable to do it afterwards, as the opportunity for discriminating in the final selection of a permanent head is greater. It is best in selecting your permanent branches to have them alternate and opposite. Do not tolerate a crotch under any consideration. Thousands of dollars are lost annually to the growers of this Province from

trees splitting, due to the badly-formed heads. The usual plan is to select three or four branches to form the head of your tree. One must remember that absence of crochets, proper distribution of wood and symmetry are three very desirable features in a good, profitable apple tree.

Start your heads low, not more than three feet, and twenty to twenty-four inches is more desirable. When there is likely to be deep snow, however, three feet is low enough. Where snow settles during the mild weather it is likely to tear off the lower branches. This applies specially to the northern and far eastern counties in Ontario. Low-headed trees economize in spraying, picking and thinning. The union of branch and trunk is stronger, the trees are not so easily twisted and shaken about by the winds, thus lessening the number of windfalls and broken limbs.

When selecting the three or four limbs to make the head, choose the strongest, providing they are spaced wide enough apart along the trunk tree. A great deal can be done to form good heads by pruning upright growers to outside buds and spreading growers to inside buds. Always cut back to a lateral growing in the direction of the prevailing wind, as this is the only effective way of overcoming the relative position of the tree to the wind. With two-year-old stock, having cut out undesirable limbs, leave the rest either unpruned or slightly cut back. The reason for this is that buds near the tips of these limbs are more vigorous than those towards the base. In case of a dry season it will be noticed that trees severely cut back will often die, whereas those merely thinned out come through with a fair growth. Three or four-year-old trees will require to have about half their tops cut back to properly balance and form the head.—Fruit Branch Circular.



The Same Mistake in a Young Orchard.

This young orchard is just across the road from the one above, yet the trees, all standards, are planted just the same distance apart. Forty feet each way is not too wide for standard, permanent varieties.

—Photo by an Editor of Farm and Dairy.



TWO HORSES
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4 cycle
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Farm

Cushman Engine

on your binder
are better than
4 horses without
the engine.

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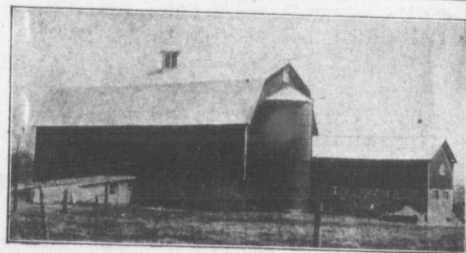
Horses merely draw machine. Engine does all operating. Runs reel and sickle, elevates, binds and delivers grain. Sickle continues to run when bull wheel skids or in turning. Does away with loose sheaves. Cuts heaviest grain—tangled grain. Binder won't choke. Easily attached to any binder. Has patented clutch pulley with sprocket for chain drive to double sprocket on binder. Throttling governor with Schebler carburetor prevents jerk on engine or binder. No waste fuel.

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Best for running the grindstone, pump, corn sheller, wood saw, feed grinder, washer, separator, etc. Runs at any speed. Change speed at any time without stopping. We also build 2-cylinder engines, 5 to 20 h. p., for silo filling, operating large balers, etc. See your dealer. Tell us your needs. Start the binder engine matter today. Catalog free.

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If you are a maker of anything whatever that enters into the construction or equipment of a Farm Building, you certainly ought to be represented in the Annual FARM BUILDINGS NUMBER OF FARM AND DAIRY, out JUNE 7th.

This issue will contain live articles on the best kinds of barns, silos, etc., to erect on the farm, and the best material to use in their construction. It will be copiously illustrated, showing interior fittings of food barns as well as exterior photographs. Should you handle silos, silo material, cement, roofing material, shingles, litter carriers, stanchions, lighting devices, etc., get your strongest copy in the big FARM BUILDINGS number of June 7. It will go to approximately 25,000 dairy homes. We have a few choice positions open at present. Write us your reservations. All information and rates furnished by writing

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The paid subscriptions to Farm and Dairy exceed 21,000. The actual circulation of each issue, including copies of the paper sent to subscribers who are but slightly in arrears, and sample copies, varies from 22,000 to 23,000 copies. No subscriptions are accepted at less than the full subscription rates.

Sworn, detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be made on request.

OUR GUARANTEE.

We guarantee that every advertisement in this issue is reliable. You are able to do this because the advertising columns in Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn every ad to unobjectionable advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Rogues shall not ply their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling differences between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd.
PETERBORO AND TORONTO

Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider.—Bacon.

The Silo Next Winter

UNLESS all signs fall the silo owner will be more fortunate next winter than he is in most seasons. The area seeded last spring, because of the almost constant wet weather, was smaller than for several years past. The killing drought of the latter summer months did not promote a good growth of the new seeding, and according to all reports much injury was done to the clover in Ontario during the first half of April. To this series of misfortunes is now being added the additional reverse of a cold backward spring. Grass is making a slow start, and present prospects are for a short hay crop. He who has a full silo, however, is more or less independent of the hay crop, and will have cause to rejoice in this possession in the winter of 1917 and 1918.

And let us here sound a note of warning. The general tendency is to delay silo orders until the corn crop is almost ready to harvest, or at least until the prospective builder is assured of a good crop. This policy seldom resulted in inconvenience when silo manufacturing was a small line with big lumber companies. Now the manufacture of stave silos is an important main line with most companies and silos ordered late may not be delivered. To insure full feeding next winter plan for a good acreage of corn and order your silo now.

When the Shoe Pinches

BINDER twine will be more expensive in 1917 than ever before. Many factors will contribute to the increased price, such as the curtailment of the Irish supply and the high cost of labor in twine factories. Of equal importance with either of these factors, is the fact that the

Mexican binder twine trust is still dictating prices for steel, the raw material from which binder twine is made. The International Harvester Company has contracted for approximately one-tenth of all the sisal grown in Yucatan, Mexico, paying the combine's price of ten cents a pound. It is anticipated that the price will be advanced, shortly to twelve and one-half cents.

And what is this Mexican binder twine trust? If our information is correct, it is nothing more than a farmers' cooperative company, and the only difference between it and our own cooperative companies is that nature has conspired to give Yucatan farmers a monopoly on their product. We understand, too, that the price, cost of production being considered, is not unreasonable, although it is going to increase the difficulties of the grain growing farmers of America. Of course, Canadian farmers are glad to hear of cooperative progress among farmers of other lands, but at times, well, the shoe pinches a little.

Appearances Count

A FEW years ago a story went the rounds of the agricultural press, and was published in Farm and Dairy, of a farmer who invested in a few gallons of white paint and covered every building on his farm. The farm had been somewhat out at elbows and the buildings particularly so. The white paint wrought a wonderful transformation. It gave the place a smart, almost prosperous appearance. It made such an impression on the local banker that when the farmer appeared in his private office, desiring a loan with which to carry out more extensive improvements, the banker gave it to him without question.

The foregoing may be only a story, but here is a similar case. The authenticity of which we can guarantee. This farmer, too, was in debt. He needed machinery, better stock, a silo, and other things that he did not have the capital to provide. He was determined, however, that his homestead should look like a home. He and his wife believed in paint and flowers, shade trees and neat fences, and tidiness and they had these things. A wealthy retired farmer living nearby decided that "any man who takes pride enough in his place to make it beautiful will pay for it if given a chance," and he loaned his poorer neighbor the capital he needed.

That was several years ago. The loan, we are told, is not yet entirely repaid. Fortunes are not made easily on the farm. But the interest has been paid regularly and also some of the principal. Just another proof that appearances count.

Hasten Cream Grading

THE Ontario Dairy Standards Act aroused a storm of opposition, such a storm that the Department seems now afraid to touch it in any shape or form. It should not be forgotten however, that this opposition was largely directed against those clauses of the Act relating to the payment for milk at cheese factories. So far there has been no serious objection to the clauses relating to cream grading. The act has been heartily endorsed by the creamery men of Western Ontario, and has the equally whole-hearted support of many of the leading creamery men of Eastern Ontario. Some good preliminary work has been done in government grading and inspection of butter. Creamery men as a whole are satisfied that grading is desirable and must come. Then why such inaction?

The need for grading is not so apparent as real. Butter prices are good, demand is strong. We enjoy a good foreign market for all our surplus butter. In fact, butter of any quality now sells readily. We are apt to forget that these conditions will change. With the end of war, and the war will not last forever, Denmark, New Zealand, Australia, and even the growing dairy interests of Russia, will be searching for new and larger mar-

kets for their surplus output. In competition with their superior products, Ontario creamery men will find it difficult indeed to hold the place that they now do on the British market. And competition will not come only from abroad. The prairie provinces are now supplying their own needs, and the British Columbia butter market. This past year they shipped several cars of butter to Toronto and Montreal. Competition from the West is bound to become keener and keener. When peace comes and normal trade conditions are restored, Ontario creamery men must be prepared to meet quality with quality. The experience of the West backs us up in our conclusion that cream grading is the most efficient method of improving the quality of Ontario's butter. Its institution lies with the government.

Financing the Farmers' Movement

THE suggestion that was made recently by President B. C. Tucker, of the United Farmers' Cooperative Company, Limited, that the locals should assist the central company in financing its operations, is one which is likely to be attended by important results for the farmers' movement. Great trouble and annoyance has been caused in the past, not only to the members of the local clubs, but to the central organization as well, through failure at times to obtain prompt release of cars after they have reached the locals. It has frequently happened that members of locals have driven in expecting to obtain goods shipped in these cars, but have failed to do so through the necessary release not having been obtained. The difficulty of obtaining prompt releases in the past has been due largely to inadequate banking facilities.

That the Central Company has been doing all in its power is indicated by the fact that its account with its bank in Toronto in connection with the handling of such cars was recently overdrawn by \$50,000 with the result that the bank would not allow any further extensions of credit, and thereby prevented the company from obtaining prompt release of a number of cars that had been sent forward to the locals. Mr. Tucker suggests that local farmers' clubs shall establish a line of credit with their local banks to whatever extent may be necessary, and that their local banks shall advise the bank of the Central Company in Toronto that they will guarantee the accounts of their locals with the Central in Toronto to whatever sum may be agreed upon. Such an arrangement would enable the Central Company to secure prompt release of all cars, as it would be necessary for it to attach a draft to the bill of lading. The matter is being looked into by the officers of the Central Company in Toronto. It is to be hoped that the suggestion can be carried out by the locals throughout the province.

The Only Taxed Industry

FARMING is like any other business; when it pays it will make progress, and when it is carried on at a loss it will decline. That farming does not pay explains the whole cause of the deplorable condition of farming in Ontario today. The main reason why farming is unprofitable is because it is the only industry in the country that is taxed under our fiscal system. All other industries are enabled to add their taxes to the selling price of their products.

The old saying, "The farmer feedeth all," was never more an actual experience than it is today, but until our fiscal system is completely revised, and the feeding process made profitable, all appeals for "more protection" will be worse than useless. Taxation on food production is Canada's greatest political crime. When will the government, or the opposition, awake to this fact? The trouble is that both parties are controlled by the bounty-fed autocracy of combines.—Forest Press.

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The Spirit of The Press

The Farmer a Fighting Man

WE need a better crop than that of 1915 to let us out, and then we shall start 1918 away behind. The authorities tell us that the real struggle for life, whether it be peace or war, will be in 1918. Do Canadians understand that the farmer is now the fighting man, fighting for our lives on the battlefields of his broad acres? All our military conquests, all our naval victories, all our industrial triumphs are as nothing if we cannot get food.—The World.

If the Harvests Fail

THE war has taken many millions of men off the land and millions of acres out of production. Europe is producing only a fraction of what it did in peace-times, and on top of this has come a series of comparative crop failures in a number of exporting countries outside of Europe. The world has never had more than three months' food ahead, but even this surplus now nears exhaustion. The Daily News does not want to start a panic, but anything like a general harvest failure during the coming six months would probably condemn a considerable portion of the human race to starvation.—The News.

Is the World to Face Famine?

IT is almost impossible for a Canadian to imagine that any conceivable shortage in the world's food supply could do him any real hurt. He feels that such a shortage might, of course, put prices up, and he would not like that, but he cannot imagine himself actually doing without anything he wants in the way of food.

Millions of people elsewhere are doing without, are living carefully on as little food as they can, and realize that the deprivations already endured are but a foretaste of the universal want that is to follow, but the average Canadian is not as yet much impressed by all this talk of a general food shortage and of famine abroad. The average Canadian, like the average American, has, perhaps, a half-formed notion that famine is the sort

of thing that foreigners may expect, living as they do in foreign countries.—The Star.

For Greater Production

IN the face of the steadily accumulating evidence that we are threatened with a world wide shortage of food, it plainly becomes the duty of everyone of us to assist to the utmost of our ability in obtaining a greater production from the soil," writes Mr. G. M. Murray, secretary of the Canadian Manufacturers' Association to members of the Association. He follows with a strong plea to manufacturers to release any of their employees who have a knowledge of farm work.

The Ottawa Greater Production Committee, affiliated with the Ontario Resources Committee, will petition the Dominion Government to take action under the War Measures Act to suspend the Lord's Day Observance Act as it applies to farm labor for seeding and harvesting work, urging that such action would be justified by the present need for greater food production. It is noticeable that the origin of this petition is from a city, not a farmers' organization.

In discussing the food situation, Mr. R. S. Whyte of the Whyte-Packing Co., Toronto, said that he would favor a Food Controller for Canada as the only means, perhaps, by which a maximum price could be arranged. Sale he: "Farmers should be made an offer of a fixed price for the next three years. In hope, for instance, the Government should make it fifteen cents. That would mean that the farmer would go in for conservation and increased production together, and we should have a greater supply now and later. The farmer now is simply afraid to go on because he does not know when the present prices are going to slump away down.

The Hon. Martin Burrell, Dominion Minister of Agriculture, was asked in the House last week as to the whereabouts of the potato surplus reported by his department some weeks ago. In reply the Minister stated that at the end of February there were a million and a half bushels of surplus in Canada and that was what required for food and seed, the surplus being largest in Alberta, Prince Edward Island and New Brunswick. Since then half a million bushels have been exported, reducing the surplus to a million bushels.

Investigations conducted by a correspondent of the Toronto Globe in Peel, Halton, Waterloo, Wellington and Norfolk counties show that the farmers in these five counties do not expect more than a normal fall wheat crop in 1917. The acreage is reduced by 20 to 25 per cent. and in some cases fall wheat is being plowed up and re-sown with oats, peas, barley and other spring crops.

Representatives of the poultry industry in Ontario met last week with the Resources Committee to confer on methods of increasing production of poultry products. A committee of expert poultrymen was appointed to advise with the Resources committee as to what could be done. The personnel of the committee is as follows: Wm. Barber, hon. president, Western Ontario Poultry Association; J. E. Pearl, secretary Confederation of Local Poultry Associations of Ontario; Prof. W. R. Graham, of the Ontario Agricultural College; J. Lockie Wilson, superintendent of Agricultural and Horticultural Societies; Robert H. Essex, editor of Canadian Poultry Journal, Hamilton; W. R. Rolfo, of Hamilton.



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DISCS INTERCHANGEABLE: All discs are exactly alike, are unnumbered, and are interchangeable.

FEWER DISCS: There are fewer discs in the bowl, although the capacity is greater.

EQUIPPED WITH SPEED INDICATOR: Every New De Laval is equipped with a Bell Speed Indicator, the "Warning Signal" which insures full capacity, thorough separation, proper speed and uniform cream.

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THE MAJORITY CHOICE: More De Laval are sold every year than all other makes of separators combined.

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SERVICE WHEN YOU NEED IT: The world-wide De Laval organization, with 50,000 agents and representatives ready to serve users in almost every locality where cows are milked, insures the buyer of a De Laval quick and efficient service whenever he needs it.

If you haven't the spare cash right now, that need not stand in the way of your getting a New De Laval at once. We have an arrangement with De Laval agents which makes it possible for any reputable farmer to secure a De Laval on the partial payment plan—a small payment at the time of purchase and the balance in several instalments—so that your De Laval will actually pay for itself while you are using it and getting the benefit from it.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Sizers. Alpha Gas Engines, Alpha Churns and Butter-shakers. Catalogues of any of our lines mailed upon request.
MONTREAL PETERBORO WINNIPEG VANCOUVER

WATER WELLS DRIVEN AND DRILLED

To any depth, to insure a permanent supply for Cities, Towns, Manufacturers, and Farms. Pumping outfits. Our work is the kind we do not have to apologize for. Write for our circular which is FREE!
J. E. FEELEY & SON ST. ARMAND, QUEBEC.

When You Write Mention "Farm and Dairy"

A PLEASANT JOB FOR SOME ONE.

THERE is an excellent position open on the salaried staff of Farm and Dairy for a couple of young men, with farm and business experience. The work will require travelling throughout one-half of Ontario—probably with an automobile—interviewing men and appointing agents for this valuable dairy paper; also picking up information for our Editorial Department.

Travelling expenses will be met, a salary paid, and lists of names furnished. The territory to be covered will be mapped out and routed. Every assistance necessary will be given from this office. We want the men we employ in this work to be successful and qualify for a permanent position on Farm and Dairy staff. Write us fully, stating your experience, age, etc. Send a photo if possible. It will be returned.

Promotion Department, FARM AND DAIRY, Ont. Peterboro.

The Upward Look

The Courage That Wins

EVERY purpose of the Lord shall be performed.—Jer. 51: 23.

I cannot remember when I have read a true story of a life that tells of such courage and determination as does that of Dr. Margaret MacKellar.

When she was little more than a girl, the call came to her from her Lord that He wanted her to go out as a missionary. But she was heavily handicapped, as she had not even a good common school education, having spent her girl life on board her father's ship. When old enough she took up and learned millinery. Again and once more the call came. She offered herself but she was refused, she knew on account of her great handicap. She then determined to qualify. Again she met with a refusal to her application to attend the Collegiate High School, but the head-master gave her books to prepare for entrance.

In a few months she returned in despair, declaring she could not study as she did not know how. After a few more months of hard fruitless work she returned again and announced with determination that she was going back to Public School. And so back she did; she, 22 years of age, residing with children and praying over and over that they would not make fun of her. At the end of the term she was admitted after triumphantly passing into the High School, from which four years after she entered upon her medical course, followed by a post-graduate course in London.

Then she went to India where she was so sorely needed, as all the women of high caste can be treated only by women doctors. She treated them as well as the poorest. In the great plague epidemics her patients were numbered in thousands.

At the famous Durbar she was decorated by her King and Queen with the royal medal for distinguished service. She was asked what she thought of, when it was pinned on, to which she answered, "Will it pay you to go back to school? Is it worth while?" We can fancy we can hear the glad "yes" of all those she has helped in her 25 years of service for them and for her Lord.—I. H. N.

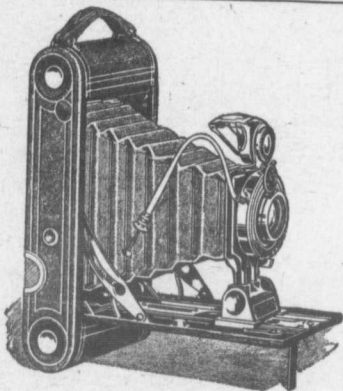
Geraniums

Wm. Hunt, O.A.C., Guelph, Ont.

TO secure good geranium plants for flowering in winter, slips should be taken in the fall or early spring. A nice plant potted from a three and a half or four-inch pot into a six or seven-inch pot in June in bedding-out time and put into good potting soil, will make a good plant for winter flowering. Plunge the pot to the rim out in the open ground early in June. Pinch the tips of each shoot out when about eight inches in length until about the second week in July. This induces a bushy, sturdy growth.

Keep all the blooms and buds pinched off until the middle of August. Lift the pot from the ground early in September and bring it into the window when it should flower all winter. The plant should have plenty of water at the roots during the summer when plunged in the ground. After bringing it into the house some liquid fertilizer should be given the plant about every 10 days. "Bonora," sold at seed stores, is the best plant food for pot plants.

M A D E I N C A N A D A



The camera fits the pocket—the picture fits the view

**No. 2C
Autographic
Kodak Jr.**

Price \$14.00

The newest of the Kodaks makes a new size picture—2 1/2 x 4 1/4 inches—a shape that fits the view, a proportion that's ideal for home portraiture.

A typical example of Kodak simplicity, it can be used successfully by anyone, no skill or previous experience being necessary.

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Of course it's Autographic—you can date and title as you take.

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If you intend to paint your house or barn, to varnish or enamel your furniture, to finish your floors, to decorate your walls, to paint your boat, automobile, buggy, wagons, farm implements, concrete, stucco or brick work—you need this book.

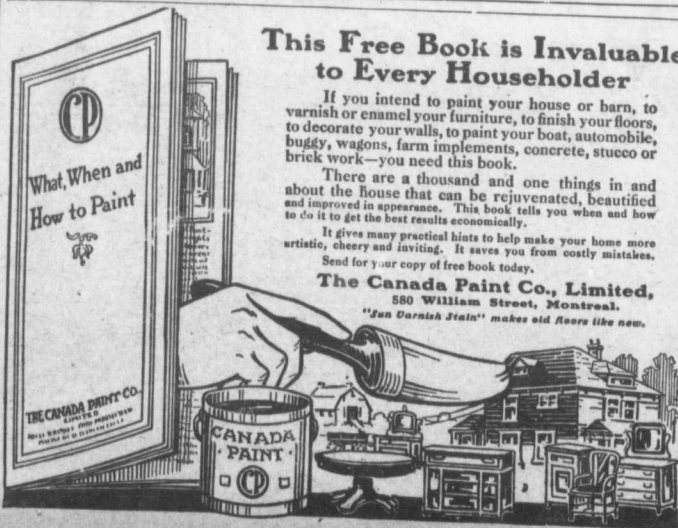
There are a thousand and one things in and about the house that can be rejuvenated, beautified and improved in appearance. This book tells you when and how to do it to get the best results economically.

It gives many practical hints to help make your home more artistic, cheery and inviting. It saves you from costly mistakes.

Send for your copy of free book today.

The Canada Paint Co., Limited,
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"Sun Darnish Stain" makes old floors like new.



A NEW HIGH MARK FOR 2-YEAR-OLDS.

WHAT is believed to be a new high record for the world in butter production for 7 days is just reported to Farm and Dairy. Het Loo yearling, 3 months and 11 days old, owned by W. L. Shaw, of Roycroft Farm, New- ton 7 days, from 74 lbs. milk. This heifer comes from high producing stock, as world's record for milk for 7 days. She also has a half sister that at the present time is making 24 lbs. and still increasing. This unusually high record for so young an animal has been officially admitted to the records, after the re-test had been found perfectly satisfactory. It is indeed a credit to Mr. Gordon H. Man- hard, the Manager of Mr. Shaw's herd, that he has been able to do such splendid work. Mr. Manhard is, of course, an only one of the many records he has placed to his credit.

PRINCE EDWARD TO WENTWORTH.

IT is a great deal of satisfaction to Holstein breeders to note the higher type of sires that are being selected to head their herds. An instance of this is seen in the young sire Prince Edward, bred by Mr. W. L. Shaw, of Roycroft Farm, Newton, Ont., has secured at an attractive price, from Mr. Ed. J. Purdie, of Bloomfield, Keyes. This youngster is a full brother to King Alcira Keyes, which Princess recently sold through the Belleville sale, to Mr. Charles Smith, Ont. Both these are sons of Countess Scotia, a Canadian champion junior 2-year-old for milk in one day, and she made 24.74 lbs. butter in seven days. This dam is a daughter of the senior bull, Prince Pieterie, and the two young bulls are senior herd sires King Scotia and Prince Edward. Wentworth county not only secures a particularly well backed and splendid individual, but the milk records account of himself in Western Ontario. This is one of the young sires that was advertised in Farm and Dairy two weeks in Holstein blood invariably find Farm and Dairy their best directory in securing the same.

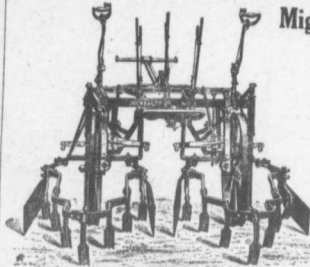
FRED. F. FIELD SUPPLIES ARBOGAST BROTHERS WITH A CHOICE SIRE

ONE of the finest sires that has come to Perth County, or in fact into any part of Western Ontario, for some time past, will be that recently purchased by the Fred. F. Field Holstein herd, from Toronto, Mass. This new junior herd sire is particularly well backed and combines with the daughters of the senior herd sire, a son of King Scotia Pontiac Alcira, the \$50,000 bull that heads the herd bred by Arbogast Brothers, especially the young bull security, large for his age, and about four- fifths white. He thus follows particularly well King Scotia Alcira, a Canadian, same herd sire, who is about the direct line of dams on either side of this milk in 7 days. Five of his near- relatives together have held eight world's butter or milk records. He is sired by son of Dutchland Blair Pontiac Rag Apple out of old Pontiac Korndyke. On the sire's side he thus traces to the richest in Holstein blood. Pontiac Korndyke, Pontiac Clothilde Debol, Colantha Johanna Lad, and Cremelle Vale. His sire combines the largest milk and butter production of the breed. His sire's dam, Dutchland Colantha Vale, made in year-old, 22,700.36 lbs. milk and 857.43 lbs. butter. At six years she increased this to 1,682.20 lbs. butter and 27,425 lbs. milk. In 1912, the world's record of 29,531.4 lbs. milk and 1,155.85 lbs. butter. Few breeders could ask for much stronger backing than this young bull.

On the dam's side he is out of Dutchland Changeling Colantha Lad, who has a record of 218 lbs. milk, and her sire, Colantha Johanna Lad, with 108 A. C. O. daughters, is out of Colantha 4th's Johanna, the only cow that has ever held all world's butter records from one day to one year. Her dam's sire has son 23 daughters with over 600 pounds daughter has had been reported, ex- ceeding over 100 lbs. milk in one day. This young sire will be the highest priced dairy animal, two months old, ever im- ported into Canada. Individually he is a splendid type. Arbogast Brothers are to be congratulated on their aggressive work in building up one of the finest herds in Ontario and in making it better by selecting the best possible sires available. The new sire will be owned in cooperation by Arbogast Brothers and Peter S. Arbogast, in connection with their Villa View and Fairmount Farm herds.

Cultivate 2 rows at once

Might as well get double work done when we've made it so easy



Every pound of food stuff you can raise will command big prices, so you can't afford weeds in your Corn or root crops this summer.

With even a short season and green help you can still make big profits if you will only give yourself the advantage of modern, labor-saving equipment like the Cockshutt No. 5 Cultivator.

Here you have Cockshutt flexibility—light draft—quality—simplicity—in full measure. It GETS the weeds from 2 rows at a time.

COCKSHUTT No. 5 CULTIVATOR

Handy levers control the teeth—and crooked rows are cultivated just as thoroughly as a model line. Teeth are fitted to steel standards which in turn are attached to frame by a "break-pin" construction.

The No. 5 Cockshutt is only one in our complete line of Cultivators. You can handle any field or root cultivation with our Champion, Climax, No. 2, No. 4 and No. 5 Cultivators; or with one of our smaller Scuffers.

Ask our nearest Agent to-day for new Catalogue. It is very interesting—it may be very helpful.

COCKSHUTT PLOW CO.
LIMITED
BRANTFORD, Ont.

Sold in Eastern Ont-
ario, Quebec and Mari-
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THE FROST & WOOD CO.
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"Eastlake" Metallic Shingles

Fire, Lightning, Rain and Storm Proof, Easily laid and make a good appearing permanent roof. A post card will bring you particulars.
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This most valuable of farm books costs you not one cent



A book, which, properly used, will mean hundreds of dollars in actual profit to you. By following its plain directions, you can—unaided and in your spare time—build almost everything your farm should possess in the way of Concrete improve- ment. It covers all the uses of Concrete on the farm—from a fence-post to a silo.

It contains interesting photo- graphs showing what other Canadian farmers have accomplished with working plans revealing how they did it. Perhaps you are specially interested in some of the

features listed in our companion Put a cross opposite the ones that interest you. But the main thing is to ask for the Book— "What the Farmer can do with concrete."

Canada Cement Company, Limited
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Specify what you want information about	
FLOORS	DAIRY HOUSES
CONCRETE BLOCKS *	BARNs
SILOs	FENCE POSTS
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TROUGHs AND TANKS	ROADS
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"That Will Grow"

We can supply rack-cured corn, on the cob or shelled, from the following varieties:

Improved Leaming, Wisconsin No. 7, Early Bailey, White Cap Yellow Dent.

This corn was grown and cured by specialists in seed corn, and is therefore of a very superior grade of seed.

Let us quote you on all kinds of garden and field seeds, including marrow, sugar beet, turnip, carrots, butter beans, white beans, seed potatoes, buckwheat and field grasses.

Cotton Seed Meal, Oil Cake Meal, Gluten Meal, Bran, Shorts, Feed Oats, Whole Oats, Pure Linseed Meal, Good Luck Brand Cold-Headed and a complete line of Good Luck Brand Poultry Feeds. Write, please or wire for prices.

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778 Dovercourt Rd., TORONTO

SHIP YOUR
BUTTER & EGGS

—to us. We are not commission merchants. We pay net prices and remit promptly.

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Established 1854. TORONTO, ONT.

CREAM

WE ARE OPEN TO BUY CREAM, both for churning and table use.

ASK ANY SHIPPER about our service and prompt returns.

ASK FOR PRICES. The figures for yesterday may be TOO LOW for tomorrow.

WE FURNISH CANS.

The Toronto Creamery Co., Limited
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Good Cheese is in Demand - Use

Windsor Cheese Salt

Made in Canada

THE CANADIAN SALT CO. LIMITED

THE MARTIN
DITCHER AND GRADER
DIGS YOUR DITCHES
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EASILY QUICKLY CHEAPLY

REVERSIBLE ADJUSTABLE

WORKS IN ONE DAY

DOES THE WORK OF 50 MEN
SEND FOR FREE BOOKLET

THE PRESTON CAR & COACH CO. Limited
83 DUNDAS ST. WEST, TORONTO

The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

The Cost of Rennet

EDITOR, Farm and Dairy.—In last week's issue of Farm and Dairy a writer in "The Makers' Corner," compares prices for making cheese in 1914 and 1917. I would like to know if the writer of these figures can furnish me with any rennet at \$4.15 a gal. The best price I have been able to get since Jan. 1st, 1917, is \$10 a gal. At this rate you can add for 88 oz. of rennet, \$6.50 to the making of a ton of cheese, instead of \$2.25. It is also stated that Curdalc, \$4.25 a gal., is said to be 1.5 stronger than standard rennet. I beg to differ. What I have used, two gallons of Curdalc is not worth one bit more than one gallon of Hansen's rennet.—C. J. Donnelly, Middlesex Co., Ont.

The Proper Spirit

The cost of makers' supplies has in many instances doubled and tripled. Labor is more expensive than it was. The making price of cheese, therefore, has been advanced at many factories without criticism and almost without discussion. The patrons of the Shearer cheese factory in Peterborough county, have gone the majority of other factories one better, however, in that at a meeting held a few days ago they voluntarily gave the owner and maker, Mr. J. J. Hogan, an advance on his making price consistent with the advance in the cost of supplies and labor. This action is creditable to the patrons, as it was done without consulting Mr. Hogan, the season's price having already been fixed.

C.P.R. Iced Butter Car Service

COMMENCING Tuesday, May 15th, and until further notice, an iced refrigerator car service will be established for the carriage of Butter only to Toronto and Montreal, also shipments for export forwarded via Montreal or Quebec; the intention being to have the car arrive at Outremont (Montreal) Friday, so that the contents may be delivered Friday afternoon or Saturday morning. The service will be four cars weekly, as follows:

(1) From Windsor, iced car every Tuesday on "Way-Freight Extra." This car will leave London by "Way-Freight Extra" Wednesday a.m., and Toronto by No. 910 Thursday night. Shipments from intermediate main line stations west of Toronto will be loaded in this car. Shipments from Port Burwell, Ingersoll, and St. Mary's Subdivisions should be way-freighted to Woodstock for transhipment to iced car from Windsor.

(2) From Goderich, starting May 20th, iced car every Wednesday on "Way-Freight Extra." Shipments from Listowel Subdivision should be way-freighted to Linwood Junction for transhipment to iced car from Goderich.

(3) From Owen Sound, iced car every Wednesday on "Way-Freight Extra" for West Toronto, to be transferred at Toronto, whenever possible, to car from Windsor. Shipments from Walkerton Subdivision, iced car every Tuesday on "Way-Freight Extra" to be consolidated at Owen Sound.

(4) From Teeswater, iced car every Wednesday on "Way-Freight Extra" running via Orangeville and Streetsville Junction for connection at Toronto whenever possible with car from Windsor.

PEERLESS PERFECTION

No matter how fast it comes, the most unruly animal can't break through a **Peerless Perfection Farm Fence**—it springs back into shape.

Made of heavy Open Hearth steel galvanized wire with all the impurities taken out and all the strength and toughness left in. Every wire is crimped making the fence extra heavy. Will not sag. Requires less posts than ordinary fence. Absolutely guaranteed.

Don't buy a roll of fencing until you get our Illustrated Catalog. Describes our big line of farm, poultry and ornamental fencing. Also Peerless Farm gates. Agencies almost everywhere. Agents wanted in all unassigned territory.

The Banwell-Hoxie Wire Fence Company, Ltd.
Winnipeg, Man. Hamilton, Ont.

CHEESEMAKERS! HANSEN WANTS RENNETS

We have opened a factory in Toronto for the manufacture of our well-known Rennet Extract and other preparations. And we need all the Rennets we can get. You will find it profitable to collect Rennets from the farmers and butchers in your locality and ship them to us. The Rennets should be those of milked calves only.

GOOD PRICES PAID.

Write us for special circular containing full instructions for the preparation of Rennets for shipment, and particulars of the prices we will pay. Do this now—There's money in it for you.

CHR. HANSEN'S CANADIAN LABORATORY,
201 Church St., Toronto, Ont.

CHEESE-MAKERS!

Are you going to continue using high-priced imported Rennet Extract—or

Curdalac* (P. D. & Co.) and **Spongy Pepsin for Cheese-making?**

During the season of 1916 these two coagulants satisfactorily replaced Rennet in scores of factories; gave full yield of fine-flavored cheese, and with great saving in cost.

Ask the nearest supply dealer for information regarding the use of these products, also for prices and descriptive literature.

*The term "Curdalac" is used to distinguish the liquid milk coagulant manufactured by Parke, Davis & Co., Walkerville, Ont.

PARKE, DAVIS & CO.

AYRSHIRES

LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, sired by Auchincbrain Sea Foam (Imp.) 25758 (8865), Grand Champion at both Quebec and Sherbrooke, from Record of Performance Pans. Write for catalogue.

Proprietor: **GEO. H. MONTGOMERY,** Dominion Express Bldg., Montreal.
Manager: **D. MCARTHUR,** Phillipsburg, Que.

FAIRMOUNT AYRSHIRES

Mature cows and young stock for sale always on hand (both sexes) from large heavy producing high testing cows, sired by Robin Hood of Fairmount, Imp. U.S.A. No. 45194, son of the famous Netherhall Robin Hood, Imp. No. 25752. Inspect here or write for particulars.

B. J. TAYLOR

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Fernbrook Ayrshires for Sale

Bulls from 8 to 12 months old, out of dams closely related to the two greatest Ayrshire cows in the world, Garciagh and Jean Armour.

COLLIER BROS., Beaville, Ont., Oxford Co.

FOR SALE

One eleven months Ayrshire bull from R.O.P. dam whose record as 2-yr.-old is 8,230 lbs. milk, 368 fat. Write for further particulars concerning him.

WILLIAM BRITTON,
R. R. No. 1, CLINTON, ONT.

May 10, 1917.

and trying to raise enough vegetables for home use. Potatoes are very scarce, and selling at \$1.00 a bushel, and wheat is so well and looks fine, promising a good crop.—G. W. C.

NORFOLK CO. ONT.

PORT BURNINGHAM, April 24.—Weather conditions, clear and cold at time of writing. The grass looks up green and seems to be growing fine. All stock came through the winter looking fairly well. Hoses are \$1.50 per cwt.; eggs 20 cts; butter, steady at 45 cts. Farmers are preparing land for corn and potatoes.—**P. E. P.**

MEDICINE HAT, ALTA.

LAURENCE, April 20.—Owing to the great quantity of snow that winter, the spring is very late compared with other years and the ground is so wet that very little work has been done on the farm. The past two days have been quite drier up land quickly. If weather continues fine, seeding will be general here by April 25th.—**W. M. S.**

HEMMINGFORD AYRSHIRE BREEDERS' MEET.

The Hemmingford Ayrshire Breeders' Club held their first annual meeting on April 25th. The secretary's report showed a balance on hand of \$88. The President's address, reviewing the year's work, was encouraging. The showings at the Ottawa Winter Fair, 20 to 25, prove that the Hemmingford Ayrshires are in the forefront both as a producer of a show animal. We also held a very successful commission sale last Saturday and our second sale is booked for April 25th, 1917. The evening Mr. Stephen's Association gave a very interesting and instructive address. He emphasized the necessity of using the best stock to obtain the best operation, laying aside all party politics and working together for the mutual benefit of all. Mr. P. J. Howick, Howick and Rev. Mr. Murray of Hemmingford, also spoke in words of encouragement. After a hearty vote of thanks to Mr. Stephen, the meeting was brought to a close by singing the National Anthem. The following officers were elected: President, J. C. Bennett; Hemmingford; Vice-President, Gen. W. H. Bustard; Sweet, Hemmingford; Secretary, Fred A. Blair, Hemmingford; Directors, R. T. Finkler, J. C. Bennett, Thos. A. Stewart, W. R. Stewart, all of Hemmingford; J. W. J. Lacombe, Lacolle.—**M. E. A. SWINERT, Secy.**

AYRSHIRE COWS THAT HAVE QUALIFIED IN R.O.P. FROM MARCH 14 TO APRIL 4.

Mature Class.

GIPSY MAID OF HICKORY HILLS, 35309; 11,025 lbs. milk, 428 lbs. fat, 2.56 per cent. fat, 283 dya. N. Dymont & Sons, Brantford.
White Lady 2nd of Springbrook Farm, 30925; 10,494 lbs. milk, 424 lbs. fat, 4.94 per cent. fat, 262 dya. E. Walker, Robo.

Miss Blanch 2nd, 36545; 10,341 lbs. milk, 423 lbs. fat, 4.69 per cent. fat, 260 dya. A. Annear, Meaford.
Nettie Gray of Hickory Hill, 35201; 9,126 lbs. milk, 407 lbs. fat, 4.45 per cent. fat, 265 dya. N. Dymont & Sons, Brantford.
Springbrook Mildred, 30934; 8,794 lbs. milk, 428 lbs. fat, 4.84 per cent. fat, 267 dya. Mansford Dale & Stock Farm, Beausoleil, Que.

Four-year-old Class.

Antuchonop Miss (Imp.), 29385; 8,836 lbs. milk, 314 lbs. fat, 3.51 per cent. fat, 225 dya. H. Montague Allan, Beaconsfield, Que.
Miss, 28252; 8,676 lbs. milk, 363 lbs. fat, 4.23 per cent. fat, 240 dya. Woodlawn, Beausoleil, Que.
Springhill Flower Girl, 33394; 8,678 lbs. milk, 320 lbs. fat, 4.09 per cent. fat, 216 dya. W. H. McNeil, Robo.

Three-year-old Class.

Brookside Nancy, 34929; 9,557 lbs. milk, 401 lbs. fat, 4.24 per cent. fat, 231 dya. W. H. McNeil, Robo.
Present, 33922; 9,501 lbs. milk, 437 lbs. fat, 4.21 per cent. fat, 232 dya. W. T. Mohare, Tillsonburg.
Wendywood 2nd, 37410; 9,270 lbs. milk, 388 lbs. fat, 2.97 per cent. fat, 232 dya. Woodlawn, Beausoleil, Que.
Wendywood, 37419; 9,171 lbs. milk, 378 lbs. fat, 4.12 per cent. fat, 265 dya. Woodlawn, Beausoleil, Que.
Miss, 384 lbs. fat, 4.24 per cent. fat, 247 dya. Gillespie Bros., Yorkton.
Betty of Tangwood, 41738; 8,661 lbs. milk,

327 lbs. fat, 3.77 per cent. fat, 338 dya. Woodlawn, Beausoleil, Que.
Virginius of Inglewood, 37239; 7,970 lbs. milk, 373 lbs. fat, 4.49 per cent. fat, 265 dya. Wilson McPherson & Sons, St. Arna.

Tanglewood Spring, 41739; 7,660 lbs. milk, 312 lbs. fat, 4.06 per cent. fat, 320 dya. Woodlawn, Beausoleil, Que.
Auchenfeld Myra 2nd, 48425; 7,506 lbs. milk, 273 lbs. fat, 4.16 per cent. fat, 316 dya. J. & C. Balaclava, Chesterville.

Two-year-old Class.

Dairymaid of Hickory Hill 2nd, 45913; 11,843 lbs. milk, 487 lbs. fat, 3.82 per cent. fat, 265 dya. N. Dymont & Sons, Brantford.
Shannon, 42321; 8,726 lbs. milk, 369 lbs. fat, 4.22 per cent. fat, 265 dya. Shannon Bros., Sherbrooke, B.C.
Queen of Spots, 44943; 8,726 lbs. milk, 360 lbs. fat, 4.48 per cent. fat, 308 dya. W. H. Brudley, Ladysmith.
Miss 3rd, 45190; 6,437 lbs. milk, 252 lbs. fat, 3.31 per cent. fat, 365 dya. Frank A. Wright, Thedford.

W. P. STEPHEN, Secretary.

THE HALLMAN SALE ON MAY 23, 1917

Few breeders are better known throughout Ontario, or in fact, the Dominion, than Mr. A. C. Hallman, of Breslau. In the business, following is a pioneer of Holstein breeding in Ontario. Long before most of them had any appreciation of the value of black and red cows to a producer of a show animal, he knew that Mr. Hallman's Farm and Dairy to 40 head from his herd on May 23rd the hammer, as Mr. Hallman's herd comes out of the Holstein business. He is however, in making the offering of 40 head, but is simply receding in order that each strain of breeding in order that he may carry on still further the good work of his sire for so many years.

The entire offering except four, are of Mr. Hallman's own breeding. The great bulk of them are, however, young stuff that has not been tested owing to the lack of help and other activities have taken up Mr. Hallman's attention. The entire offering is of course, backed by the strongest of breeding. There are five daughters of the senior herd sire, Sir Korndyke Bonaire, and three of these are in their third years. Brooders who second and third blood Holstein blood know the value of this sire's backing, scarcely a herd in America but what claims the distinction of having in its herd some of the blood of the Pontiacs and the Korndykes. Sir Korndyke Bonaire has for his dam Fairview Korndyke, that made 3217 lbs. butter as a 4-year-old, with an average fat test of 4.65 per cent. Her Ontario record was 130.13 lbs. butter fat, and 234.2 lbs. milk. Breeders in Brantford who secure daughters of one of the sons of Sir Korndyke Bonaire will be fortunate in placing in their herds some of the best blood in America.

Among the mature cows offered, Acme Sadie Pauline is especially good. She is milking up to 78 lbs. per day, and has a strong rugged constitution such as will make a good foundation for a sire breeder. She has one daughter that was champion femur at Windsor, and is now owned by the Government at Compton, B.C. Another fine cow is Mrs. Countess Polly, who under average farm conditions, made 30 lbs. at three years old. She is strong and straight, and four of her daughters of a similar type are in the herd. They have the same fine conformation. One of these daughters has a two-year-old record of 16 lbs. made under just farm conditions. Mrs. Hallman's Stateman is found another splendid offering. This one is a grand-daughter of the senior herd sire, Sir Neerland Stateman Cornelius, who, in Mr. Hallman's early days at Haldon was a great ring winner, only beaten once. Note her in the catalogue. She tests 4 per cent. Body she and a daughter of this cow are included in the offering.

Another attractive cow is Mrs. Wayne DeKol Better Maiden 2nd. She has 106.15 lbs. milk at 24 months, and is in every way a sweet, attractive animal, carrying an almost perfect udder. Two daughters of Sir Korndyke Bonaire are also offered. Her dam is Orinda of Evergreen, out of Brown Breston and Chubb's bull. All the 4-year-olds are a clean, smooth type of animals, and practically everything backed up by A.I.M. M. I.O. breeding. Get a catalogue and list of attending on May 23.

The Hallman Sale
MAY 23rd, 1917
40 HEAD **Breslau** **30 Females**
ONT.
Herd Established 1883

In my sale of May 23rd, I am offering much of the results of my thirty-four years in the breeding of Holsteins. They are of the type that have not only been big producers, but have also been great winners in the showing. In the way of breeding it is enough to say that my two present sires are—

Sr. SIR KORNDYKE BOON, Jr. SIR ECHO POSCH, a son of the grand old world famous bull, PONTIAC KORNDYKE. Twenty of my females, OFFERED are sons of S. K. BOON, and a number of his young sons are included. Sr. SIR ECHO POSCH, now two years old, and sired by INKA SYLVIA BEETS POSCH, DAUGHTER OF MAY ECHO SYLVIA. A few calves are offered from this young bull. He will be offered subject to a reserve bid.

If you want something choice in Holsteins, do not fail to be on hand at 1 p.m. on May 23rd. Farm is one mile from BRESLAU STATION. Persons coming from south and south-western Ontario after 12 noon will be met at Bowman House and taken to the farm.

THE CATALOGUES ARE READY. SEND FOR COPY.
A. C. HALLMAN
Springbrook Stock Farm
R.R. No. 2 BRESLAU, ONT.

A HERD SIRE AT A BARGAIN
Billie Hengerveld Plus No. 2460, Vol. 19. Was calved August 15, 1915. He is a big, beautifully marked animal, showing lots of character, is very lively and quiet. He has never had a cow to be brought back the second time. Sires in this country Hengerveld Plus, and dam Eugenie Green, is thought to have been the best Holstein cow to be brought to this country. He is a bargain at \$150. Write quick if you want him.
W. E. N. Hodgins - Box 46, Shawville, Que.

Could spare 10 cows or heifers. See to the Great Bull KING SEGIS PONTIAC DUPLICATE. Have one yearling bull, and calves from 19 months down. Myrtle, C.P.R. Manchester, G.T.R.
R. M. HOLTY, Port Perry, R. R. 4

Eighth Annual Live Stock Show
of the
Live Stock Breeders' Association
of the
DISTRICT OF BEAUVARNOIS, Ltd.
Will be held at
ORMSTOWN, QUE., JUNE 6, 7, 8, 1917

Come to Ormstown, Quebec on the above dates and see one of the best Live Stock Shows in Canada. All Horses and Cattle judged under cover in the large Stadium at 10 a.m., 2 p.m. and 8 p.m. daily.

HORSE RACING ON THE THREE DAYS OF THE SHOW.
Admission to Grounds: ADULTS, 25c CHILDREN, 15c.
Write the Secretary for Prize Lists and other information.
NEIL LANGSTER, President. **W. G. McGERRIGLE,** Sec.-Treasurer.

HOMESTEAD HOLSTEIN STOCK FARM
Offers for sale 11 heifers from 11 to 16 months old. Eight are grand-daughters of PALADIN OHEMERY. All have good breeding, are well grown, of good type, and nicely marked, and at a price that will pay you well.
B. R. Barr, Prop., R.R. No. 1, Meesley, Ont. Harristown Station, C.P.R.



AN UNSOUND STALLION. NOTE CROOKED HIND LEGS.

THE SCRUB SIRE must go



IT PAYS TO BREED FOR QUALITY AND SUBSTANCE.

He is the Great Menace to the Development of Ontario's Live Stock Industry today.

Look at the market toppers in beef classes. Study the prize winning bacon pigs and the high producing dairy cows. Consider the horses with clean, strong limbs and strongly muscled bodies. Are they the progeny of scrub sires? If not, then why tolerate the scrub sire?

Throughout North America stallions are inspected and licensed to give preference and to emphasize the value of the pure bred. If America places a high value on the pure bred horse, and the same natural law prevails in all classes of stock, should not similar emphasis be placed on all classes by the owners, without legal restrictions?

Ontario has 775,732 horses, 2,734,767 cattle, 908,066 sheep and 1,735,254 swine. Their numbers might be larger, but if every animal were the product of a good pure bred sire their value would be much greater.

The Scrub Sire is Easily Recognized

He may be an animal which lacks breeding, has faulty conformation and no individuality.

Or an animal which has good conformation but no breeding. He is not a sure getter. The progeny will lack uniformity.

Or he may have a pedigree but may lack in vigor and in conformation

Why are British Sires Imported

Why do Ontario stockmen and Argentine ranchers buy large numbers of pure bred stock in Great Britain? Because:—

They are shrewd business men.

They understand the natural law, "Like tends to produce like."

They know Great Britain has the best because the British stockmen have for generations used the best pure bred sires obtainable.

They know that stock from sires which have a line of pure bred ancestry for generations will be uniform in size, of good quality and true to type.

Some Results of Good Breeding

The milk records of 55 grade cows in a certain Ontario herd were kept from 1895 until 1907, and a pure bred bull only was used during the period.

Very few cows were purchased, the females being reared and retained in the herd. In 1895 the herd average was 3,600 lbs. per cow per year. In 1907 this average had risen to 8,006 lbs. The records show a gradual increase year by year. What others have done you can do.

The average production per cow in Ontario is about 4,000 lbs. annually. Many give more, but the scrub cows which are the progeny of scrub sires reduce the average; if the scrub cows were reduced in number then the average production would soon reach 6,000 lbs. or 8,000 lbs. per annum.

Here's Another Result

In one section 12 pure bred rams were purchased, but several grades were also used. Careful comparisons were made. When the lambs were sold 12 lbs. per lamb extra was credited to the use of the pure breeds. The rams cost \$15 each. Ask yourself: Was it a good investment?

Is it any wonder that successful stock raisers insistently demand pedigree, type, vigor and individuality in stock sires?—they know that "like tends to produce like." They have realized that immense losses are incurred yearly because scrub sires are retained upon a large percentage of Ontario farms. The labor is just as great, the food consumed is the same, but the returns are much less.

Sell the Scrub

If you own a scrub sire sell him while the price for meat is high. Buy a good pure bred sire. An animal which looks cheap and has a cheap pedigree is dear at any price. The real value of an animal is estimated by its earning power, either as a producer of dairy products or meat, or as a breeder of stock.

Successful co-operation with natural laws is vital in agriculture. They are infallible and beyond our control except as we offer opportunities for them to become a part of our every day operations. Nature makes no charge for services rendered, but collects toll when her laws are ignored.

Every farmer should co-operate with nature by eliminating the scrub. Buy a good animal and give natural law an opportunity to assist him rather than retard his progress.

Aim for Quality and Quantity. "Feed, Breed and Weed."



ONTARIO

Ontario Department
of Agriculture
Parliament Buildings
TORONTO

Sir William H. Hearst,
Minister of Agriculture

G. C. Creelman,
Commissioner of Agriculture



THE MENACE TO ONTARIO'S CATTLE INDUSTRY. DON'T USE HIM



LIKE BEGETS LIKE. THIS KIND PAYS.