

FARM AND DAIRY

AND
&
RURAL HOME



DEVOTED TO
BETTER FARMING
AND COUNTRY LIFE



Peterboro, Ont., March 16, 1916

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A MONEY-MAKING QUARTETTE.
Photo on Farm of Robt. McEwen, Middlesex Co., Ont.

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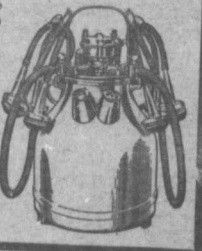
a boy can milk the cows and can milk 20 of them in an hour. That may seem a little steep to you, but it is being done, and the owners of the B-L-K are loud in their praises.

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Activities of the District Representatives

ONE owner of a ditching machine made some very tempting offers to the farmers in the Dundas district, where drainage is needed so badly. His terms are at the rate of 25 cents a rod for a 2 1/2 foot ditch with five per cent. off for cash and no interest charged if payment is made on December 1, 1916. Where a farmer will give his note subject to bank approval, the payment will be extended to December 1, 1917, the note to bear interest for one year at seven per cent.—J. C. Duff, Grey Co., Ont.

Sheep in Muskoka and Parry Sound.

"The Course in Agriculture at Pownassan is the most satisfactory course we have far as attendance goes, of his three conducted in my territory this winter. We had twenty regular students last week, besides a number of older men who dropped in occasionally. The boys attending are all young fellows, ranging in age from about 18 to 30 years, and they are attending regularly.

"It is just possible that we may be able to organize a Wool Growers' Association at Pownassan this spring. I might say that annually there is shipped or taken from the country surrounding Pownassan approximately 350,000 worth of livestock. One drover alone shipped 3,000 sheep from Pownassan last fall. A number of the farmers have excellent flocks of sheep, the Shropshire bred being the most popular. One large sheep ranch east of Pownassan consists of 3,000 acres of mostly rough land which could be cultivated. This was only started last summer, and at the present time the proprietor has 150 ewes. He has built up-to-date sheep barns."—F. C. Paterson.

Brockville Ayshire Breeders Meet.

"At the annual meeting of the Brockville Breeders' Ayshire Club at Brockville there was a good representative attendance of the Ayshire breeders of the county, and a useful meeting resulted. The members of the club are very strongly in favor of having milk supplied to cheese factories, etc., according to test."—W. H. Smith.

Hastings Co. Farmers Co-operating.

"By special request I addressed the Sidney Farmers' Club at Aiken's Corners, where about fifty farmers assembled to hold the second annual meeting of their Club. The Club did nearly \$4,000 worth of business last year. In several lines the members of the Club claim to have patronized at reduced prices. The Club has also installed a 4-ton scale at Sidney Crossing, and have a largely signed petition to present to the Grand Trunk authorities requesting a station at that point. The Club is also using its strongest influence to secure additional telephone service not now available.

"The Anson Farmers' Club has ordered a carload of raw limestone dust, which is to be tried out in an experimental way by many of the members of the Club."—A. D. Molnau.

Young Farmers Busy in York County.

"On Wednesday we had a combined meeting of the Junior Farmers' Improvement Societies at Beckmond Hill. We had a large attendance of boys from all parts of the county. The morning was spent in discussions by the boys on the different competitions and other phases of the work. They took hold of it well, and everything passed off well. These competitions seem to be more popular than ever in this county, and several of the boys expressed their desire of taking part in them next season.

"In the afternoon it was decided to form a County Board of the Junior Farmers' Improvement Association.

We have at present three Junior Farmers' Improvement Associations, and they each elected two directors to this board, and from these were chosen the officers. The following officers were elected:—

"President, Robert Watson, Woodbridge; Vice-Pres., Angus Cowleson, Queensville; Secretary, F. O. Sullivan, Tadmorden; Committee, Walter Bellock, Westport; H. Smith, Aurora, and Jas. Hope, Newmarket."—J. C. Strickley.

Domestic Science Course in Middlesex.

"The Domestic Science Course which closed this week was exceptionally well attended with an aggregate attendance of 1,270 at the 19 demonstrations given, making an average attendance of 66. The afternoon demonstrations were more fully attended, being as high as 127 out in an afternoon. To show how much this class was appreciated, the following says that one or two of the women drove nine miles to the course after milking six cows and doing their house work."—R. A. Pinn.

Feeding Cottonseed Meal

COTTONSEED meal is a rich protein concentrate and therefore of particular value to the dairy farmer. An analysis of the digestible protein in a hundredweight shows its value very clearly. As compared with 37.2 lbs. of digestible protein in 100 lbs. of cottonseed meal, there are only 112 lbs. in bran, 16.7 lbs. in brewers' grain, and in linseed meal 39.3 lbs. Cottonseed meal is also very rich in fat, feeding 12.2 per cent.

Last year cottonseed meal was by all means the cheapest food for dairy cows on the market, with the possible exception of brewers' grain. Cottonseed meal has an advantage over brewers' grain, however, when it comes to balancing up a ration consisting largely of home grown food stuffs, which are usually deficient in protein. For this purpose cottonseed meal, in spite of its higher price this year, is still the cheapest food available.

This concentrate must be fed with caution, as it has been proven that hundreds of cattle have been killed by judicious feeding of cottonseed meal. One pound in the ration is enough at first. The usual amount fed does not exceed three to three and one-half pounds for a dairy cow, and best results are obtained when fed in combination with lighter foods, such as hay or mixed with ensilage. Some feeders give as an advantage six pounds of cottonseed meal to heavy milking cows, and claim that they can thus increase the milk yield without any harm to the cow.

The man who is attempting to establish a market for fancy butter has an additional reason for being cautious in the feeding of cottonseed meal. Fed liberally, it produces butter of poor flavor, which has the appearance of being overworked. All evidence on hand shows that it hardens butter, gives it a tallow consistency, and makes it deficient in natural color. Fed in reasonable quantities, however, cottonseed meal produces satisfactory butter, which is firmer than ordinary butter, and would stand shipping better in warm climates. All are well advised to leave cottonseed meal absolutely alone when feeding calves and pigs.

No animal responds more quickly to kindness than the dairy cow. No animal will punish its owner for harsh treatment with a dollars and cents discount, more quickly than the cow.

Trade increas

VOL. XXX

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pend on you to feed him therefore, larger dies his head, among farmers, use of the land in Canada we to yields. Last to the rainfall, beyond anything in the West a yielded 75 bush which ran over forage crops over

These exceptional weather conditions best farmers have. There is no reason in the aggregate are at the present who are only to handle the land method as their do not realize the digested fertility, market demands in farming methods our total yields in intelligence and a saving practice.

Ticking

We must have something that will and one of the first feed is palatable, a cow eats 100 pounds certain amount she can be induced will get more than Palatability in the eat the extra amount.

Another important the feed. You may a cow, but if it reduce it you may the transaction. T that 10,000 pounds or from \$60 worth.

When Of all succulent acceptable to the the cow as any. It pal cows in Ontario grown successfully, pal recommendation large amount of it. Last fall we harvested \$5 acres at the Expe Besides a succulent

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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. XXXV.

PETERBORO, ONT., MARCH 16, 1916

No. 10

The Feed To Grow and How To Grow It*

An Outline of Methods Particularly Applicable To Eastern Ontario Conditions

BY J. H. GRIDALE

FOR the most part the dairy farmer has to depend on what he can grow on his own farm to feed his stock. His success or failure, therefore, largely depends on the way he handles his land, and the cause of most failures among farmers is they have not made the best use of the land which they worked.

In Canada we fall down as a rule when it comes to yields. Last year was an exception for, owing to the rainfall, our yields have been away and beyond anything we have ever heard of before. In the West I saw fields of wheat last fall that yielded 75 bushels per acre, and fields of oats which ran over 150 bushels per acre. In Ontario forage crops have yielded in proportion.

These exceptional yields were due largely to weather conditions, but the fact remains that our best farmers have excellent crops every year. There is no reason why our yields should not be in the aggregate 50 per cent. better than they are at the present time. We have too many men who are only half farmers, who are willing to handle the land along the same lines of ordered method as their fathers and grandfathers. They do not realize that changed conditions such as depleted fertility, the weed nuisance, and altered market demands require a corresponding change in farming methods. What is needed to increase our total yields is more care, more thought, more intelligence and a little more labor in our farming practice.

Ticking the Cow's Palate.

We must have in the feed of the dairy cow something that will make her consume a lot of it, and one of the first considerations in growing the feed is palatability from the cow's standpoint. If a cow eats 100 pounds of feed, giving therefrom a certain amount of milk, the chances are that if she can be induced to eat 150 pounds of it you will get more than a proportional increase of milk. Palatability in the feed is what will induce her to eat the extra amount.

Another important consideration is the cost of the feed. You may get 10,000 pounds of milk from a cow, but if it takes \$100 worth of feed to produce it you may not be making much money on the transaction. The objective should be to get that 10,000 pounds of milk from \$80 worth of feed or from \$60 worth. In all feeding operations, consider the cost.

Where Corn is King.

Of all succulent feeds corn ensilage is the most acceptable to the farmer and is as acceptable to the cow as any. It is already one of the principal crops in Ontario and Quebec, and can be grown successfully all over Canada. Its principal recommendations are its succulence and the large amount of it that can be grown per acre. Last fall we harvested 1,200 tons of silage from 85 acres at the Experimental Farms at Ottawa.

Besides a succulent feed dairy cows demand a

dry food rich in protein. For this purpose alfalfa is very suitable. We grow it in our hay mixtures, but there are various objections to growing it alone. It requires special preparation of the soil and makes necessary the setting apart of certain areas on which to grow it. Unless a field is set apart for it, it disorganizes a farmer's rotation. The common clovers, red and alsike, have the advantage that they are more easily grown than

alfalfa is as good as any. Besides furnishing the cereal part of the cow's rotation, the oats furnish the straw so necessary about the cow barn. These crops, corn, clover, and oats, together with the straw, are the main ones to grow. Eliminate one of them and there is a lack as far as the feeding of dairy cattle is concerned. They have the additional advantage that almost every farmer knows how to handle them.

Increasing the Crops.

For centuries it has been recognized that certain crops do better after certain others. From this observed fact has arisen the practice of rotation, and all experience tends to emphasize the great importance of rotation in farming practice. Corn never fails to grow on spring plowed sod or pasture which is properly prepared. A light coat of manure should be applied on the surface of the sod, after which it should be plowed to a depth of about four inches. The roller should follow the plow immediately, the soil should be very well cultivated, and the corn sown right away. Where this procedure fails it will be found to be generally due to not rushing the work through as fast as is consistent with thorough cultivation. Wisconsin No. 7, White Capped Yellow Dent, or Early Learning are suitable varieties. The corn should be sown in rows three and one-half feet apart with a wide grain drill. One advantage of seeding in rows is that it can be done more rapidly; another is that if the drills are kept straight a great deal of labor will be saved in the summer cultivation. Then, when it comes to harvesting it is easier and more satisfactory to cut corn that has been sown in drills rather than in hills. For summer cultivation there is nothing to equal the two row cultivator, but for its satisfactory use it is absolutely necessary to have the rows straight. Neglect in this matter at the time of seeding will be a cause of worry the whole year through.

Growing Three Crops a Year.

Each year the farmer should make provision for the growing of at least three crops, that is, the crop under cultivation, and the crops which are to succeed it in the two following years. For this reason corn should be kept as free as possible from weeds, and should be handled with a view not only to yielding a large corn crop, but also to harvesting maximum yields of the crops which are to follow it.

Do not disturb the soil too deeply after the corn is harvested. If plowed, it should be plowed very shallow, but we have not the best results by simply using the double line harrow. The disadvantage of this method is that it leaves the corn stubble on the surface, but otherwise it gives the best results.

alfalfa. We all know how to handle them, and they fit into our rotations splendidly. With the average farmer they yield almost as much as alfalfa.

For the cereal part of the food grown on the farm nothing can equal oats, and of these the

Wages of Farm Help

THE wages paid for farm labor in Canada in 1914 fell to a lower point than in any other year. The causes for this decrease were the small crops of 1914 for the gathering of which fewer hands were required, the release of other laborers on the outbreak of the war and the increased cost of board. In 1915, owing to the abundant harvest and the effects of recruiting for the army, there was some reaction, and the average wages paid were more than in 1914, if not quite equal to those paid in 1910, the date of the previous inquiry. For the dominion the average wages per month during the summer, including board, were \$37.10 for male and \$20.20 for female help, as compared with \$35.55 and \$18.81 last year. For the year, including board, the average wages were \$341 for males and \$200 for females, as compared with \$323.30 and \$189.75 in 1914. The average value of board per month works out to \$14.57 for males and \$11.45 for females, the corresponding figures of 1914 being \$14.27 and \$11.24. Average wages per month were lowest in Prince Edward Island, viz., \$26.67 for males and \$14.59 for females; in Nova Scotia the averages were \$32.95 and \$18.85; in New Brunswick, \$33.73 and \$16.11; in Quebec, \$33.08 and \$16.44; in Ontario, \$31.05 and \$17.12; in Manitoba, \$45.16 and \$27.59; in Saskatchewan, \$42.22 and \$23.81; in Alberta, \$44.02 and \$24.25; and in British Columbia, \$49.37 and \$31.21.

*A synopsized report of an address delivered by J. H. Gridale, B.Agt., Director Dominion Experimental Farms, Ottawa, at the E.O.D.A. Convention in Hamilton.

Oats, barley or wheat may follow the corn, and these should be seeded down with grasses and clover. The following mixture is costly, but the yields amply justify the extra expense of the seed: red clover, 6 pounds; alfalfa, 2 pounds; alfalfa, 6 pounds, and timothy, 6 pounds.

The land should be left under this mixture for one year, or at most two years, depending on the length of the rotation. When the farmer has a

permanent pasture for the three year rotation, viz. corn, grain and hay, is the best rotation for profit in Eastern Ontario. If it is necessary to have the rotation include pasture, then the four year rotation, corn, grain, hay and pasture is the best one.

Although experience and experiment have proved the beneficial effect of short rotations on our aggregate yields of field crops, still it can

safely be said that only one or two percent, of the farmers of Canada are closely following such a rotation. We are becoming more and more convinced of the necessity of following crop rotation if we are to get the results that we should. The object of the farmer should be to drive the land to its limit, for the harder it is driven the more liberal is its response to the work put upon it.

All Around the Farm---Suggestions From Our Folks

The Production of Clean Milk
L. HANRATTY, Hastings Co., Ont.

"If a job is worth doing at all, it's worth doing well."

This is an old adage and applies equally well in the production of milk, whether it be for immediate consumption or to be manufactured into dairy products. A first-class article, either of butter or cheese, cannot be made unless the raw material is first-class, i.e. I have learned that the following precautions have to be carefully adhered to if a first-class article must be produced:

(1) The cows should be groomed daily, and their udders washed previous to milking.
(2) The fore milk should be rejected.
(3) Feeding should always be done immediately after milking.

(4) Cleaning operations should be finished, some considerable time before milking to allow the dust to settle.

(5) Narrow mouthed pails should be used, and the milkers should wash their hands several times during milking.

(6) Milk should not be exposed to the air of the stable after milking, but should be immediately removed and cooled down to 40 degs., at which temperature bacteria cease to develop.

(7) All utensils should be thoroughly steamed before using.

(8) The use of unclean cloths is a frequent source of bacterial contamination, and should be carefully avoided.

Experience With Ground Limestone

J. A. Macdonald, Kings Co., P.E.I.

THE use of lime—not burnt lime, but ground lime rock—as a fertilizer in the last couple of years has attracted the attention of many wide-awake farmers. On one farm—the writer's—ground limestone was applied a year ago last spring to alternate strips on a field that was being sowed to oats and seeded down to clover and timothy. The experiment was repeated last year. In 1914 little if any result was observable in the oats, but in 1915 the clover on the limed land was nearly double that on the untreated land. Last year the oats on the lime treated land were somewhat better than on the untreated land, due possibly to the fact that the limestone used was somewhat finer ground.

Now, these are matters of fundamental importance. If ground limestone will accomplish nothing else than cause a big increase in the clover fields of the country, it will pay to apply thousands of tons of it to the farms of Eastern Ontario, Quebec and the Maritime Provinces, for everyone knows that clover is a great soil enricher, and that once the farmer has established the clover crop on his



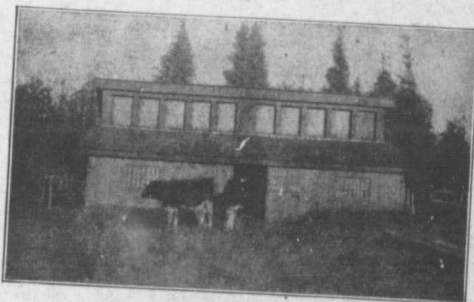
A Calf Barn With Many Commendable Features.

Particularly notice the amount of window space. This barn is long and narrow, with just one row of box stalls and a feed passage at the back. The photograph was secured by an editor of Farm and Dairy on the farm of G. A. Brothert, Peterboro Co., Ont.

farm, he has, to a large extent, solved the whole question of soil fertility. More clover and yet more clover has changed many a run-out farm into productiveness, and has laid the foundation for the successful growing of all kinds of crops and for the feeding of live stock.

Now limestone is abundant, and transportation facilities should make it accessible to the Western county farmers. The question, therefore, arises, Can I afford to do without lime? What can I afford to pay for it? Should the farmers in my section of the county cooperate to buy a portable limestone grinding machine? How much limestone shall I apply per acre? And so on. These and many other questions in regard to the use of limestone are, or should be, up for discussion during the present winter.

Mind that many a person has a mistaken notion in regard to the use and value of lime. It is not a fertilizer. It is a soil amendment that corrects acidity and improves the physical texture of the soil, and so makes it possible for manure and fertilizer and cultivation to do better work. It is necessary to understand this fully before one makes up his mind definitely as to what he will do.



This House, Too, Has Its Good Points.

The monitor type of roof with windows facing the south is desirable where there are two rows of stalls and the feed passage in the centre. Sunlight is the cheapest of all gericides, and we can't get too much of it in the calf barn.

Handling Corn Land

Elias B. Martin, Jr., Waterloo Co.

AS soon as the snow is off the field, but while the frost is still in the ground, I like the manure. I do not like to haul it on the snow as too much is lost by leaching, and we find that it doesn't rot much in our yard until the spring rains and warm weather come. Our yard is but small with a wall around it, and the cattle keep the manure tramped down firm. About the middle of May, or when the clover has made a good start, I plow it down about six inches. I intend to get a subsoil lance to put on my plow for plowing sod and then to plow six inches, and to work up about three or four inches more with the lance. I prefer the walking plow to the sulky plow, as I have yet failed to see one make as good work as I can make with my walking plow.

After plowing I go on with disk and roller. I have only a common 16 inch disk for two or three horses, but I would prefer a double disk as it makes better work and disks twice in one operation. When the weather is fit and the seed bed ready I sow my corn, usually White Cap Yellow Dent, in rows three and one-half feet apart. In about a week I go over with my lever harrow and repeat again in a week or so to kill all weeds that might have germinated and to keep the soil loose on top to stop capillary action. As soon as the rows can be seen I start my two row cultivator and go over as often as necessary to keep the soil loose on top.

We usually go over twice with the hand hoe. If the field were very weedy I would prefer to plant in hills three feet apart each way, but my land is fairly clean, and I find I can get more fodder if sown in rows and the stalks aren't so hard and woody. I get a fairly good amount of ears, too.

Clean Turnip Seeding

E. F. Eaton, Colchester Co., N.S.

WE have a plan here, followed when seeding turnips on a weedy field. The land is thrown in ridges early in the spring. The weeds soon leave the field. Just before seeding we draw the chain harrows (a plank drag would do), over the top of the ridges. This cleans a space to sow the seed in. The weeds between the rows are then killed with a scuffler. The seeding space is free from weeds, and the removal of the top dry soil leaves a nice moist soil for the seeds.

We don't like weedy fields, but when we have them we must make the best of it, and the foregoing hint has often proved valuable to us. In our moist climate weeds grow more readily than in Ontario, but even there the hint may prove of value.

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LAST spring Dairy Co. ville, Que., a much impression on spring. The portion and winter-w tion top dress killed." W Dairy Farmer winter top d recent issue full as follows

"Have you freezing out? ever stopped of these most cause of severe do freeze out no farther so You know that beria and that "But you a fafa winter-k raised more g are milked; a milk and but profitable. Co and keep at the year. Les be purchased. Prosperity sou "What is the freeze up wh "They are h

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"When spring lived all winter surface of the again, it cracks. The tiny root of clover is broken the plant dies. usual procedure fields of these Where one p frozen out by s ther, thousands alternate thawin in climates wh ther and snow iste in spring, gradually thaws frost leaves the away until a comes, little tro ened from wi clover and a teaches a valu we can keep th ground until spr to stay, we can alfalfa. Th be done by top now when they are covered with

"The covering ground, until lon has melted. It is until long after is not covered.

"The crop will tiling ingredie leach into the soil plant will hasten and the sun w greater to pay fo will result even lived without the

Manure Prevents Winter Killing

LAST spring one of the editors of Farm and Dairy called on Mr. Geo. Beech, of Cowansville, Que., and, in looking over his farm, was much impressed with the results of an experiment on spring versus fall top dressing of clover. The portion of the field top dressed in the fall and winter was a 100 per cent stand. The portion top dressed in the spring was badly "winter killed." Why the difference? "Kimball's Dairy Farmer" explains the value of fall and winter top dressing so fully and clearly in a recent issue that we reproduce their editorial in full as follows:

"Have you ever heard of clover or alfalfa freezing out? Surely you have. But have you ever stopped to think how seldom it is that either of these most valuable plants really freeze out because of severe cold weather? You know they do not freeze out in the far north as badly as they do farther south, where winters are not so cold. You know that alfalfa grows successfully in Siberia and that it does not freeze out there.

"But you also know that both clover and alfalfa winter-kill. If they did not, they would be raised more generally on every farm where cows are milked; and, with more alfalfa and clover, milk and butter-fat production would be more profitable. Cows would yield a greater quantity and keep at it more persistently throughout the year. Less protein foodstuffs would have to be purchased. Fields would remain richer. Prosperity would be greater than it already is.

"What is the trouble? If these plants do not freeze up what does happen to them?"

"They are heaved out.

Winter Killing Explained.

"When spring comes, after the plants have lived all winter, the sun shines brightly and the ground thaws. At night it freezes again, it cracks and heaves. The tiny root of the alfalfa and clover is broken and naturally the plant dies. This is the usual procedure that ruins the fields of these useful legumes. Where one plant is really frozen out by severe cold weather, thousands are killed by alternate thawing and freezing. In climates where cold weather and snow continue until late in spring, when the snow gradually thaws and then the frost leaves the ground, to stay away until another winter comes, little trouble is experienced from winter-killing of clover and alfalfa. This teaches a valuable lesson. If we can keep the frost in the ground until spring has come to stay, we can save clover and alfalfa. This can easily be done by top dressing fields now when they are frozen, especially where they are covered with a few inches of snow.

"The covering will hold the snow on the ground, until long after snow that is not covered has melted. It will hold the frost in the ground until long after the frost has left ground that is not covered.

"The crop will not only be saved but the fertilizing ingredients of the manure that will leach into the soil surrounding the roots of the plant will hasten growth when spring rains come and the sun warms the soil. Profit enough greater to pay for this top dressing of the land will result even though the plants would have lived without these extra precautions.



An Enjoyable Springtime Task.

"Best of all, the habit is formed of hauling and distributing the manure daily from around the barn. There are very few days in most climates when it is impossible to spread manure on meadows, pastures and fields, and once it is there, fuller fertilizing value will be secured from it than though it were allowed to accumulate in piles in the barnyard to give inconvenience all winter and a big job next spring.

"Not on one dairy farm in a thousand do conditions justify permitting manure to pile up at the barn when it could be serving such com-



Gathering the First Crop of the Season.

A vat or barrel on the front box saves many steps in gathering the juice of the maple. A scene in the sugar bush of Geo. H. Montgomery, Phillipsburg, Que.

—Photos by an editor of Farm and Dairy.

mendable purposes so well if spread out where it belongs."

There may be room for discussion as to the relative merits of daily versus spring spreading of the manure on corn ground. For top dressing clover, however, the argument is closed; winter applications are advisable.

Is the development of milk veining on the belly of the dairy cow a reasonably accurate indication of producing ability? Prof. R. R. Graves, of the Oregon Experiment Station is investigating the subject. He tied the milk veins of a pure-bred Ayrshire cow so that no blood could pass through those we ordinarily see extending forward from the udder. No ill effects came to the cow.

Home-Made Maple Vinegar

T. H. Mathison, Gley Co., Ont.

IN the pioneer days, when the thrifty housewife had not so much money to spend as she has at the present time, she was keen to take advantage of any scheme that might suggest itself for effecting a saving in her household expenditures. One of the ways commonly made use of was the manufacture of her own vinegar. Nor was this in any way a hardship. The product which she made was much superior to much that is retailed over grocery counters at the present time, and the trouble and expense she was at in making it, was not great enough to be a serious consideration.

It may seem mysterious to some that materials so different as maple syrup and vinegar, can be made from a common source. The process, however, is comparatively simple. Small organisms change the sugar of the sap into alcohol, and the alcohol in turn is changed by bacteria into an acid, in this case into acetic acid.

Where a considerable amount of maple syrup or sugar is made, an abundant supply of vinegar can be obtained from what would otherwise be waste products. The washings from the pans, strainers, etc., which have been used during the making season, can be collected in a barrel placed there for the purpose. The last few days' flow of sap, usually having a disagreeable taste, and, therefore, unsuitable for sugar making, can also be utilized. The ordinary sap can, of course, be utilized as well, and when used for vinegar making it should be reduced by boiling to one-seventh of its original volume.

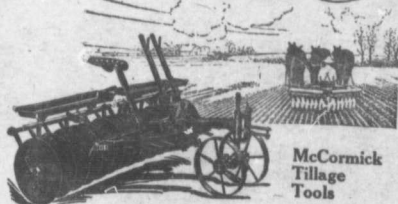
The alcoholic fermentation will usually set up of its own accord in the barrel which contains the sap or washings. It proceeds best at a temperature of about 50° F. If the process is not fast enough, it can be hastened by the addition of a little yeast, a cake or two of ordinary compressed yeast being suitable. This fermentation should be complete in about two weeks.

After the completion of the alcoholic fermentation, the material is strained into the vinegar barrel. The mother of vinegar is then added. This greyish, slimy mass consists of innumerable bacteria, which attack the alcohol that has been produced and change it into acetic acid. A temperature of 70 degrees is most favorable for the working of this form of bacteria. Besides the favorable temperature, a liberal supply of air is required. This is best secured by laying the barrel on its side and boring two holes, one at either end, through which the air can pass freely over the contents. The holes should be covered by screens to prevent the access of flies or other insects.

Maple vinegar, properly made, is one of the very choicest of all vinegars. Its flavor is far superior to most of the commercial varieties, and it is regrettable that no more of it is made. Any farmer having a few maple trees in his wood lot, or along his fence, can easily put up enough to supply all the needs of his household during the entire year.

The Old Country live stockman develops his young stuff. He doesn't have to see the weekly or monthly cheques from an animal before he gets interested in it. It is for this reason largely that imported cattle win over our home-bred stuff—their early development. A case where good feeding and management gets its reward.

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CAN you get over a field once with your disk harrow, cutting the full width of the harrow each time, and do a satisfactory job? Is your disked land level, and free from ricks?

It is if you are using a McCormick disk harrow, and that's one of the principal reasons for buying a high-grade, well-designed disk with bowed set-lever bars, easily adjustable snubbing blocks, and a frame strong enough to hold the gauge level in all kinds of soil. Once over with a McCormick disk, lapping six or eight inches, generally does a first-class job. If your conditions are such that you must double disk, use a McCormick twin tandem attachment and do the whole job at once. The time you save in one season is worth enough to pay for the attachment.

The same high-grade quality and design runs through the whole McCormick line of tillage tools—the peg and spring-tooth harrows, cultivators, scufflers, and land rollers. Properly used, they raise seed bed preparation to a science.

Buy your tillage tools this spring from the McCormick local agent, who will show you how to take full advantage of all their good features. Write the nearest branch house for catalogues.

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FEEDERS CORNER

Clover Silage

IN most sections of our country corn is the important silage crop, there is no doubt that it is more successfully ensiled than any other crop. However, there are times when it would be both economical and convenient to put clover into the silo, but in many cases the farmer is doubtful of the results which he might obtain.

The Montana Station carried on a series of experiments with clover silage for three years, the results of which are set forth in Bulletin 94. They used the second crop of clover, and whenever it seemed dry enough, water was added to make it pack well. The resulting silage seemed to be of good quality and the cattle ate it readily. To test the feeding value of the silage they fed two lots of five cows each for five weeks. One lot received grain, timothy hay, and clover silage; the other grain, timothy hay, and clover hay. At the end of the five weeks the feed was reversed, i. e., those receiving silage were fed clover hay while the others received the silage instead of clover hay. Similar experiments were carried on during the two succeeding winters. The average results of these three trials showed that practically the same amount of grain was required by both silages fed and hay fed animals for the production of 100 pounds of milk. The hay lot required 58.96 pounds of it to produce 100 pounds of milk, while 133.3 pounds of silage and 32.2 pounds of hay were required by the other lot. The difference of 56.46 pounds of hay may be taken as the equivalent of 133.3 pounds of clover silage. In other words, 1 pound of hay has about the same value as 23 pounds of the silage.

30 per cent. as, because of its coarse husk, the hog is not able to digest the whole oat to advantage. I would insist that the miller grind grain well, as some of them, in order to save power, do little more than break the grain to pieces. A real good mill will reduce oats until they are almost powder.

It is somewhat doubtful whether the grinding of corn for some classes of live stock is worth the labor and expense involved. Tests conducted for ten years at the Wisconsin Experiment Station showed an average increase in gains of about six per cent. from grinding corn for hogs. The results for individual years ranged from 11 per cent. gain to 13 per cent. gain. The Iowa station has also done considerable work in testing various methods of preparing corn for hogs, and found that while grinding showed a slight increase in the feeding value of corn for older hogs such gains did not begin to pay the cost of shelling and grinding. Soaked shelled corn showed to much better advantage than the corn meal, and also proved somewhat better than the dry ear corn.

As much as 25 per cent. of whole corn may remain undigested when fed to cattle. Unless hogs follow the cattle in the feed lot, it is therefore desirable to grind the corn to prevent this waste. Sheep will handle whole grain to much better advantage.

Why Succulence Pays

NUMEROUS scientific trials and common experience on farms have abundantly demonstrated the value of adding succulent feeds to the rations of farm animals. The beneficial effects of succulence, whether supplied as pasturage, silage, or roots, are many. Just as our own appetites are stimulated by fruits and green vegetables, succulent feeds are relishes for the animals of the farm, inducing them to consume more feed and convert it into useful products.

It is reasonable to hold that such palatable feeds stimulate digestion, and it is well known that their beneficial laxative action aids greatly in keeping the digestive tract in good condition. The flesh of root-fed animals is in general more "snappy" or watery. There is no doubt that, for breeding stock, less tense and more watery flesh, a natural sequence of feeding succulence, is more conducive to vigorous young at birth and to their hearty maintenance after birth than is the condition of hard, dry flesh produced by feeding only dry forage through the winter.

The dairy cow gives her maximum returns when she is supplied with succulence. Such feeds build toward rapid sturdy growth in the young of all farm animals. Some succulent food is especially beneficial in keeping the horse in condition, to which the thrift of the work horse when turned out to pasture bears witness. But the horse at hard or fast work should receive only a limited allowance of these feeds. Steers and sheep make rapid and economical gains on pasture, and grass-fed animals are in the best possible condition to make rapid gains when placed in the feed lot. Among the most important contributions of the experiment stations are their demonstrations of the economy of feeding silage to fattening cattle and sheep and of the possibilities of cheapening the cost of producing pork through the utilization of pasture.—Wisconsin Experiment Station.

Ground vs. Whole Grain

By E. L. McCaskey.

SHALL I grind the grain for all the live stock on the place? We all ask ourselves that question at some time or another. Before giving my opinion on the question to hand, let us go back a piece. Doubtless most of the readers of Farm and Dairy, like myself, can remember when cooking was the fashion, and we were advised to cook almost everything that was fed to the stock around the place, except hay, and we were advised to steam that. Then the Experimental Stations came along with their careful work, and failed to find any particular advantage in cooking. Still later we were advised to soak the grain and sprinkle the hay, and again the Experimental Stations failed to find the decidedly beneficial results that propagandists claimed for this method. Now that the question is grinding, I feel disposed to again ask what the Experimental Stations have discovered, as in the past, practical feeders soon discovered that the findings of Experimental Stations were essentially correct.

In the case of horses, ground oats have not shown any great advantage over whole oats, except where the teams are on very hard work, or have defective teeth. For my own part, I prefer rolled oats to ground oats for our horses, and most of the great mills throughout the country are now equipped to roll oats as well as grind. In corn, I prefer to feed cracked corn to horses, especially fresh cracked corn.

With hogs the case is entirely different. Grinding will increase the feeding value of oats for hogs 20 to

The dairyman who is shipping cream or selling milk by test will find a Babcock test invaluable in improving his dairy herd.



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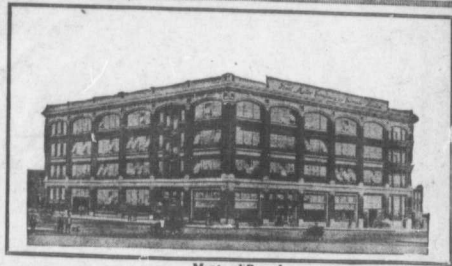
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Area 133,000 sq. ft. Cost \$328,000



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Area 123,000 sq. ft. Cost \$250,000



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Area 124,000 sq. ft. Cost \$333,000



London, Ont. Branch
Area 49,872 sq. ft. Cost \$161,000

One Million Seven Hundred and Twenty-four Thousand Dollars for New Buildings in Canada Since War Began WHY?

Is Canada prosperous?

Are we justified in having the courage and confidence to put on full speed ahead in our business activities?

The experience of the Canadian Ford Company since that forgotten Aug. 1, 1914, indicates that courage and confidence should be away above par, that we are fully justified in casting aside anxiety and putting our full energy into an aggressive and progressive business policy.

It was some time before the outbreak of war that the Ford Canadian Company decided on an extremely broad policy of expansion.

If the demand for Ford cars should increase in the way that it had every indication of doing, then new buildings would have to be started at once to enable the company to meet this demand.

When war came the Ford Canadian executives saw no reason to change their plans—their confidence in Canada's prosperity never wavered.

So work was begun on a new building at Ford City costing \$452,000. This is used as an addition to the office building and to the main factory building. It adds 130,000 square feet of floor space to the Ford Plant bringing the total up to more than 9 acres.

Then followed a new machine shop costing \$90,000.

The power plant was also enlarged at a cost of \$110,000.

In four leading Canadian cities, handsome new buildings were erected as branch assembly factories. All are of similar construction, being modern fire-proof buildings of brick and reinforced concrete interiors are finished and fitted in accordance with the very best modern practice.

One of the branch buildings is located at Montreal, 119-189 Laurier Ave., East. It is a four story building containing 124,000 square feet of floor space and costing \$333,000. Over 100 people are employed here.

The Ford branch at Toronto, 873-882 Dupont St., is a five-story

building containing 132,000 square feet of floor space. The number of employees is about 160.

The third new branch building is at London, Ontario at 680-690 Waterloo Street. It is a three story structure having 49,872 square feet of floor space and was erected at a cost of \$161,000.

The immensely increasing demand for Ford cars in Western Canada made it necessary to build a fourth new branch at Winnipeg. This is a handsome five story building located at the corner of Portage Avenue and Wall Street. A quarter of a million dollars was put into its construction.

The total cost of these new buildings erected by the Ford Canadian Company since war began is \$1,724,000. Additional to this are thousands of dollars spent to equip these buildings.

Why has this been done? First, to provide Ford owners with greater service facilities. Each of these branches is so completely equipped with parts and machinery as to be able to build a Ford car complete. Also they act as a base for the hundreds of Ford dealers in their parts of the country, each of whose place of business is a well equipped Ford service station, in giving more rapid and more efficient service to Ford owners.

The second reason for this great amount of development work is to be found in the attitude of the Ford Canadian executives. If these men had followed the policy of many Canadian manufacturers they, with seeming good judgment, might have held up these plans for such enormously expensive construction work.

But such was not their attitude. They were convinced that progress and prosperity were assured in Canada.

This decision was of vast benefit to Canadian industries, Canadian merchants and Canadian workmen in such a critical time as this. Practically all the material for these buildings was purchased in Canada. Canadian workmen were employed in their construction. And after the construction work was over, the whole community benefited from the enthusiastic, successful, wealth producing and distributing activities of these big establishments.

Ford Motor Company of Canada, Limited, Ford, Ont.

Ford Runabout	...	\$480
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Ford Sedan	...	890
Ford Town Car	...	780

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130-Egg Incubator and Brooder for \$13.90

If ordered together we send both machines for only \$13.90 and we pay all freight and duty charges to any R. R. station in Canada. We have branch warehouses in Winnipeg, Mon. and The Univ. Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, double air space between, double glass doors, copper tanks and boiler, self-regulating. Nursery under incubator complete with egg tray. Especially selected in Canada and shipped from U.S.A. 30 days trial. Incubator to cover inferior material. Brooder with rollers, we feed one of our chicks. How they will grow in a large cage is sure to interest you. Write for price of \$13.90 for both incubator and brooder and covers freight and duty charges. Send for 24-page catalogue and more ideas.

WISCONSIN INCUBATOR CO., Box 234, Racine, Wis., U. S. A.



POULTRY

My Three Breeds
Mrs. Geo. Francis, Elgin Co., Ont.

MY flock of poultry consists of about 87 pure White Leghorns, including four cockerels, and also a sprinkling of Plymouth Rocks and Black Minorcas. The characteristics of these birds are varied, but each breed is valuable and each has its mission to fulfil and are adapted to mixed farming.

The Black Minorca is a small bird with very deep black plumage. If well treated under favorable conditions, this bird is an excellent layer. I always admire the egg of this bird; it is a large, pure white egg and when boiled looks very inviting. The flavor is delicious, especially where good, clean, nourishing food is fed, and lots of pure water is available.

In the Plymouth Rock we have a large bird with a beautiful plumage and well shaped. When I see this stately bird stepping around I feel like saying, "You are well groomed." The Plymouth Rock is a good winter layer and is thus a profitable bird when eggs are high. This bird is also noted for hatching early broilers and when one is located near the town or city, she is worth her weight in gold. Plymouth Rocks make a good table fowl, some of them weighing seven or eight pounds when placed on the platter, and almost ready one of a young turkey.

The White Leghorn, as far as eggs are concerned, pays her way. She is here to lay and all one has to do is to feed her well.

A Plea For Trapping

TO make a success, it is imperative that we know our hens. We must test their abilities. We cannot afford to keep dopes. We must adopt some method, therefore, by which we can determine the good from the bad. Noticing a hen repeatedly upon the nest is not a guarantee that she is about to lay. In using trap nests I have almost daily captured hens on the nest, but no eggs, and their annual records were very low. Everytime a hen cackles when coming out of the laying room is no criterion that she has laid. I believe it was Collingswood who once said "a cackling hen is either a layer or a liar"—and in using trap nests I have found quite a number of these cacklers to be "liars".

So, prior to the adoption of trap nests, the selection of layers has been more or less guess work. It was said by some writers that "sparc and leggy birds are the best layers." This opinion no doubt, was based upon the fact that the Mediterranean class is better after that fashion.

An Authority Disproved

This view was corroborated by the late Francis A. Mortimer when he said that he found that hens with short legs, chunky bodies, short necks and small heads, are as a rule, indifferent layers. This would seem so from the standpoint that such hens are more of the meat order, but trap nests have told us that during the past few years our chunkiest Wyandottes were in the front row of layers.

Feld said the pullets that commence laying earliest in the year are the ones to lay the largest number of eggs through life. There is some logic in that, but we cannot always tell our earliest if we have no system of trapping them.

Some years ago there was quite a

They Can't Get Through!

Peerless Poultry Fence is closely woven. It's a real protection to not only large fowls, but chicks as well. They can't get through. Neither can harm get through to them. For

Peerless Poultry Fencing

is not mere poultry netting—it's real fencing. Every intersection of wires is securely locked together. It is made of can't slip or get loose. It is made of Open Heart steel wire with all impurities burned out and all the strength left in. Well galvanized, strength in every direction. Top and bottom wires are extra heavy. No top or bottom boards needed. Requires less posts than ordinary poultry fencing.

Send for catalog plus details. It also describes our farm fence, a slats and ornamental fence.

Agents in every where Dealers everywhere. In unassigned territory.

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Single Comb White Leghorns

Single Comb White Leghorns, "Roosevelt Strain," of beauty and utility bred to lay. Eggs, one-half per hundred. Chicks, \$16.00 per hundred. Fertility and live chicks guaranteed. Research Poultry Farm, Richmond Hill, Ont.

Buy Your Eggs for Hatching from the money-making kind of Barred Rocks, White Wyandottes and Buff Leghorns. Our selected and best laying strains, and will produce strong, healthy chicks of superior quality, the pullets being early and persistent layers. Four months will have the benefit of our fifteen years' experience in poultry breeding. Eggs, \$1.00 per 100. \$4.00 (5000). Safe delivery and satisfaction guaranteed. Catalogue free.

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BARRED ROCK EGGS

From one pen, bred from productive hens, with egg records up to 36 eggs per year, one pullet laying 117 months of age, commencing at four months of age. One of this pullet hatched three broods of chicks and have over 100 in her first and second broods. \$2.00 per 15 straight. Eggs from stock that will produce wherever shown. \$1.00 per 10 satisfaction guaranteed. Write for mating list.

H. A. HOVEY, Clinton, Ont.

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Years from now the Blawie Silo will be giving good service. It is built of selected timber, treated with wood preservative, that prevents decay. It has strong rigid walls, air-tight doors and hinges of heavy steel. There's no rust in it because it can't get well wet. It's the only silo that will hold anything else. Our folder explains it all. Write Dept. R. T. E. BISHOP, CO., Ltd., ELORA, ONT.



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It is the most valuable book I own and it cost me nothing.

It has saved me time, labor and money and I've got better looking, more durable and more serviceable buildings than I ever had before.

The first cost of concrete farm improvements is also the last cost. There's no after expense for paint or repairs—no danger from fire, rot or rust—no trouble of any kind. Besides concrete lowers the insurance rate.

If you haven't a copy of "What the Farmer can do with Concrete", send for one to-day. There's more than 150 pages of valuable building information, 52 practical plans, illustrated by diagrams and photographs, and dozens of other interesting farm facts.

A copy will be sent to you free of charge, immediately upon receipt of coupon below.

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THE name "Eastlake" has guaranteed that only high quality material is used. They lay quickly, fit snugly, all nail heads are covered. They securely interlock—the most vital part of any roof. Construction is jointless absolutely devoid of the most serious driving storm. Snow slides off easily, no frosting and "black watering." Out-wears wood shingles roofs with fast cost very little more, therefore far more economical. "Eastlake" shingles add real value to any building.

Write for booklet, prices, etc. List us at once on "Eastlake" shingles for your roof.

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The prices for pure maple products are higher—the supply is exhausted and the demand is increasing fast—so send for particulars to-day.

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THE GILSON SILO FILLER is the one blower that can be successfully used in any silo. It is the best silo filler for any purpose and is very large capacity machine for its size.

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We guarantee every Gilson Silo Filler to meet and exceed more savings with the same power than any other silo filler.

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discussion of the so-called egg type." Nearly all these opinions were based on the style of the Lechors, but some writers differed. For example, one writer said that good layers have a "long, slim body, are broad across the shoulders, are triangular deep in front, not compact, and have legs of good length." Another differed by saying: "Carefully avoid the leggy, high built, reared-up hen of the game-cock style. It is the short-legged, heavy-set, shrewy-looking hen 'set shells on to eggs.'" Many references could be given on this question, but nearly all differ in some particular, but the opposites, quoted above, are fair samples of representations made in the only that.

Catch Them in the Act

There is but one sure way of finding out which are our workers: we must catch the hens in the act. Each hen is known by the number on the band or ring that is placed on her leg. Catching the hen in the trap nest her number is ascertained, and this marked on the egg. Each evening, after the eggs are gathered, these numbers are given credit on a record book provided for that purpose. At the end of the year we know for a certainty how many eggs the hen has laid, not only that, but we also know the size of her egg—whether normal or not—and the colour, whether white, brown or tinted. Do not, however, employ trap nests solely for the purpose of finding out which are my best year-round layers. What I care, most to know is which are my best cold-weather layers. I want to know which are the profitable workers during the late fall winter and early spring—times when eggs bring the best prices. It is not a question with me how many eggs a hen lays in a year, but how much money her product brings. If it is possible to concentrate the bulk of her crop in six months of the year, when prices are high, and induce her to "take it easy" during the warm months, devoting the most of that time to broodiness and molting, I will have stronger and harder stock, and, consequently, more profit.

In conclusion, let me state, there is but one guarantee way of determining our profitable layers, and that is by the aid of trap nests, and no poultryman can afford to do without them. It will mean a profit in the crop, and a saving of feed, room and labor.

Original and Otherwise

"UTILITY" does not mean "mongrelism" any more than "thoroughbred" means "Standard-bred."

The old way of carrying fowls by their legs, or by the wings, is not practiced by the present day poultrymen. It is a cruel practice. Holding the fowl firmly by the legs and allowing the body to rest on the arm is a much better method.

Fowls are obliged to throw off much of the waste of the body through the lungs; they do not sweat in the sense that do other animals, but instead breathe several times faster than swine animals when heated. To keep in good health a hen requires nearly seven times the amount of fresh air in proportion to its size as does a pig.

There is almost as much difference between different families or strains of each breed, as between the different breeds. Therefore, receive with some allowance the praise or condemnation of any breed.

In Paris markets the eggs are dated, and one pays according to the freshness, so that it is possible to be certain of newly-laid eggs; or, if it is necessary to be economical, yesterday's eggs, or the day's before, are offered at a reduction.

A fat young Cochin is a gamey and savory table fowl, though the flesh is dark.

The Dominion Bank The Dominion's Silo

Both safe, handsome, and permanent — one guaranteeing the savings of its deposits, the other, feeding profits of Canadian dairymen — for that's what the Natco Imperishable Silo does. Built of enduring Natco hollow vitrified clay tile, it will last till the Great War is ancient history — a yearly source of profit. First cost is the only cost of this most economical of all silos. This year erect a

Natco Imperishable Silo

"The Silo That Lasts For Generations"

A perfect preserver of sweet, succulent silage, in all weathers — a guarantee of contented, well-fed cows and full pails of milk. Its salt-glazed hollow tile are impervious to air and moisture. Reinforced by bands of steel, laid in the mortar, within the tile stands permanent under severest wind or silage pressure. A handsome silo. Economical. Convenient. No chipping, repainting or painting. Just the silo for the Canadian dairy farm.

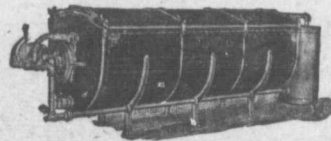
Our new silo catalog fully describes the Natco Imperishable Silo. Send for it. Write also for our helpful new book, "Natco On The Farm." Describes in detail the use of Natco Hollow Tiles in all sorts of farm buildings. Accurately illustrated. First get these books then build.



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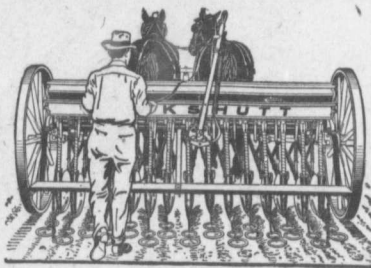
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Canadian Representatives for the J. G. Cherry Company,
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COCKSHUTT DISC DRILLS

Uniform
Seeding
Guaranteed—
3 to 5 bushels
more per acre



Seed and
Fertilize at the
Same time
with our
newest drills

Superior construction guarantees rapid, easy, correct seeding

The heavy sales of Cockshutt Disc Drills show the up-to-date farmer realizes that only the best is good enough for such an important work as seeding. A Disc Drill must have a big margin of strength and reliability so as not to "fall down" at a critical time. Be wise; get a Cockshutt.

Seeding time may be short and horses scarce! So the Cockshutt Disc Drill is built strong, but it is built for speed. Its light draft makes for rapid work in any kind of soil, rough or well tilled, hilly or level. The discs open a channel wide enough for even planting, the shoes are non-clogging and plant the seed at uniform depth. Trash cannot lodge in the discs—they "draw away" from the shoes. The heavy, high-carbon I beam—the "back-bone" of the machine—is immensely strong and rigid, preventing the slightest warping or sagging in the centre. The feed is positive and simple. Doesn't get out of order—doesn't crack or bruise the seed—sows any quantity to the fraction of a pint.

Cockshutt Standard Drills are built in 12, 13 and 15 Disc sizes with 6-inch spacing, and in 11 and 13 sizes fitted with either single discs or boxes, with 7-inch spacing.

Cockshutt Grain and Fertilizer Drills. Drill fertilizer into trench with seed. Accurate work, durability and light draft are three dominant Cockshutt land back to virgin fertility in a systematic, positive way.

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lime will lead to more vigorous growth of clover and alfalfa, though we question if it would be of any value on your soil for the production of wheat or corn, except insofar as it improves the mechanical condition of the soil. Whether or not lime will be of benefit in the apple orchard, depends on the condition of the soil. If it has been the practice to plow down green cover crops for a number of years, the richness of the soil will be somewhat sour, due to the organic acids formed by the decomposition of the green manure plowed under. Lime will neutralize these acids.

Red clover is a biennial crop, and no alteration in the condition of the soil will lead to it producing crops for more than one season.

A Sweet Clover Bulletin

THE widespread interest in sweet clover as a farm crop has been an inducement to our agricultural colleges to pay more attention to the plant than they have done in the past. The latest word on sweet clover comes in bulletin form from the Ontario Agricultural College. Mr. H. L. Fulmer is the author, and the perusal of his bulletin leads us to the conclusion that the college experts are now inclined to look with more favor on sweet clover as a farm crop than they have in the past.

For hay making, Mr. Fulmer recommends the yellow sweet clover (*melilotus officinalis*) because of its finer stems and greater production of leafage. The white variety, however, is the more vigorous grower, the greater yielder, and the more widely adaptable. "All domestic animals," states the bulletin, "drive well on sweet clover after they have once acquired a taste for it." The author reminds his readers also that such valuable feeds as alfalfa and ensilage are not relished at first by most animals, but that after a time they are eaten with much relief.

On the college farm, sweet clover yielded slightly over four and one-half tons an acre at the first cutting; alfalfa, first cutting, two and one-half tons; red clover and alsike, two tons, and timothy, four and a quarter tons. In total protein per acre, the sweet clover yielded 1,320 lbs., and the best cutting of alfalfa, 888 lbs. So far the showing is altogether in favor of the sweet clover. Alfalfa, however, has other advantages that, where it can be grown, make it preferable to sweet clover, but the conclusions reached in Bulletin 235 of the Ontario Agricultural College, indicate qualities which should assure for sweet clover a place among the farm crops of Ontario and Canada.

The Smokehouse

Andrew Boss.

The smokehouse should be eight or ten feet high and of a size suited to the amount of meat likely to be smoked. Ample ventilation should be provided to carry off the warm air, in order to prevent over-heating the meat. Small openings under the eaves, or a chimney in the roof, will be sufficient, if so arranged as to be easily controlled.

A fire-pot outside of the house proper, with a flue through which the smoke may be conducted to the meat chamber, gives the best conditions for smoking. When this cannot well be arranged, a fire may be built on the floor of the house. The construction should be such as to allow the smoke to pass up freely over the meat and out of the house.

Brick or stone houses are best, though the first cost is greater than if they are built of lumber.

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EQUIPMENT

PASTURE COMFORT WITH LOUDEN STANCHIONS

LOUDEN
Roller Bearing
Litter Carriers

—make quick, easy work of stable cleaning. No bother with brakes or ratchets. Loads easily elevated; a light pull on hand chain does it. Box loaded or empty will stand at any height. Roller bearing track wheels give ease and steadiness of motion on the track. Heavy galvanized steel box carries a big load.

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Steel Stalls
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—are neat, strong and sanitary. Heavy high carbon steel tube, and malleable fittings used in constructing Loudon Equipment. No sharp corners on Loudon stalls, stanchions or mangers to injure or make the cows uncomfortable.

LOUDEN STANCHIONS

—are fitted top and bottom with single chain, which gives the cow freedom to lie down and rise as she would in the pasture. High-built-up curb can be used only with Loudon stanchions.

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112 pages of valuable information

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AND RURAL HOME
PUBLISHED EVERY THURSDAY



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We guarantee that every subscriber in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly, we will make good the entire advance subscription, 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 in writing from the advertiser who states: "I saw your advertisement in Farm and Dairy."
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The Rural Publishing Company, Ltd.
PETERBORO, ONT.

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

Dairy Cattle at the C.E.F.

A FEW years ago the secretary of a leading Canadian dairy cattle breeders' association referred in a disparaging manner to the dairy cattle at the Central Experimental Farm, Ottawa. The remarks then made seem to have "made a dent" in the minds of many stock men, and the impression is still prevalent that the cattle at Ottawa are poor advertisements for the breeds they represent. At one time the dairy herd at Ottawa may have merited the criticism made. At the present time, however, the C. E. F. is the home of one of the finest herds of pure-bred dairy cattle in Canada, and Farm and Dairy desires to correct a false impression to the contrary that has gotten abroad.

Recently an editor of Farm and Dairy inspected the herd at Ottawa. Among the Holsteins we found such notable cows as the grand champion female at the Canadian National Fall fair, the grand champion at the Ottawa Fall Fair, a three-quarter sister of May Ekko Sylvia that in her first lactation period has milked 60 pounds of milk a day for five months, another heifer of excellent quality that has been making 76 pounds of milk a day at two milkings, a two-year-old heifer out of the dam of Lulu Keyes and others equally well bred. These Holstein cattle would compare favorably with those in any other stable in Canada.

The Ayrshires are of the kind that combine splendid type with producing ability. Ottawa Kate, for instance, one of the good individuals, has produced 9,600 pounds of milk in six months. Among the Jerseys we found one pair of cows that made close to 500 pounds of fat and calved within the year. Next to them stood other cows making from 350 to 400 pounds of butter fat in their helper form. One senior three-year-old Jersey has made 596 pounds of fat, a four-year-old 514 pounds, and all of the milking Jerseys at the farm run from 3,000 to 10,000

pounds of milk a year. The French-Canadian representation is also of high quality; one cow has made 9,700 pounds of milk and another 9,000.

Mr. E. S. Archibald, Dominion Animal Husbandman, in whose charge these cattle are, deserves credit for the steady improvement of the herd since he assumed its management. If the truth were known, however, the herd at Ottawa has never been at poor a case as many have been led to believe.

Good Roads Brought Down to Earth

SUBSTANTIAL progress was made in the solution of Ontario's good roads problem in the week ending February 26. During that week the annual Good Roads Convention was held in Toronto. The reason for the progress made was that the discussion was not, as heretofore, left to engineers and road experts, whose business it is to build roads in the clouds, but to farmers, whose duty it will be to build them on the earth and pay for them. Representative men from most of the counties of the Province were present and dominated the proceedings with the result that instead of technical discussions of road making, interspersed with over-estimates of benefits and under-estimates of cost, there was a practical discussion of the facts of the case and a revelation of the attitude of farmer to the problem, together with explanations of the cause of their attitude. In consequence the atmosphere was considerably clarified.

One of the things emphasized at the convention was that a million dollar fiasco like the Toronto-Hamilton speedway, while doubtless facilitating the progress of city joy-riders on their pleasure trips, will do nothing but retard the progress of the good roads movement. As Warden McDowell, of Norfolk, aptly said, the reckless work of the Gooderham Commission has given a black eye to the movement in Ontario. This road was built for demonstration purposes, nor has it, we believe, failed of its purpose. As a demonstration of how not to go about the business it is a glowing success.

Educational Work Needed

THAT a great deal of educational work is needed to impress the benefits of the improvements of our highways before people generally will make the enormous outlays necessary for such improvement was realized and emphasized by the delegates. The number of wealthy counties that have failed to respond to the appeals of good roads enthusiasts is evidence of this. As one speaker pointed out, however, some of the enthusiasts themselves stand in need of considerable enlightenment, especially regarding the probable cost of the schemes that they advocate. Perhaps the slowness of the taxpayers in plunging blindly into the building of costly roads has saved them their apparently adequate appropriations were altogether insufficient, and also that the general plan of road construction was not the best suited to their needs.

The first consideration in building highways costing thousands of dollars per mile should be to assist the farmers in getting to and from their markets. It will be time enough to consider the wishes of city joy-riders when sufficient good roads have been built for that purpose. One essential in any campaign of education among farmers concerning this matter is to impress them with the fact that there are powerful interests opposed to them in this regard, and that the millionaire members of automobile clubs have much easier access to the ear of the Government than they have. Good roads pay, they are as good an investment as a farming community can make, but the only way they can be made to pay is in decreasing the time it takes the farmer to reach his market, and

increasing the size of the load that his team can draw to it.

The Road to Success

ONE of Our Folks who is making a real success as a dairy farmer is Mr. Wm. Pollock, of Hastings Co., Ont. Recently Mr. Pollock answered a series of questions concerning his farming methods, sent out by the district representative in his county. To the document he added these remarks, which go far to explain his success as a dairyman:

"By breeding best, keeping records, culling 'out, raising my own cows, feeding a little 'better, our returns from same number of cows have grown from \$800 in 1908 to \$1,725. In 1915. Every dairyman should use a pure-bred sire, and the best he can afford. Three years ago I milked 12 heifers, two years old 'at freshening, eight sired by pure-bred sires 'and four by a mongrel, but from as good 'cows as we had in Plum Grove Factory. 'The eight all proved good but one, but the 'other four were only boarders, and I ruled 'them out in the first year. With ordinary 'conditions, the mature cow that won't give 'me 9,000 lbs. milk in 10 months must go 'elsewhere."

It is the same old story—good breeding, feeding and weeding, combined, of course, with good business management of both the farm and herd. If there is any other road to success in dairying we have yet to hear of it.

This Season's Burdens

WITH their already inadequate numbers still further depleted by rural enlistment, the farmers of Canada are face to face with the hardest season's work in their experience. It takes no prophet to foretell that this summer farming will be a daylight lit dark proposition. More than that, it is probable that on most farms, calves will be fed and cows milked "By the strugling moonbeams' misty light, And the lantern dimly burning."

If we judge the temper of the farmer aright, he will rise to the occasion. But there is a limit to what the farmer can do, and that limit was too nearly reached before the outbreak of hostilities. Last year he produced the greatest crop in the history of Canadian agriculture, but the fact must not be lost sight of that the large yields of last year were largely due to favorable weather conditions, which are outside 'dis control. In spite of the large crop, low prices in Great Britain have increased forty-seven per cent. since the commencement of the war. It cannot be expected that this year will see a duplication of last year's heavy yields, and there is great danger that the consumer in the Old Land will find the pinch of higher prices even keener still.

As we have emphasized in past issues of Farm and Dairy, great care must be taken not to leave too great a burden on the shoulders of the Canadian farmer. If the situation is left in the hands of the recruiting sergeant, whose only ambition is to fill up their battalions, and the farmer finds it impossible to meet the burden of producing an adequate supply of food-stuffs, the responsibility will rest, not with him, but with those who instituted the policy by which he has been left with inadequate assistance to bear that burden.

Every one is anxious to be relieved of work and responsibility during the hot weather of summer. It is a great relief if you know you can take up your farm paper, and without stopping to investigate a concern advertising therein, you can feel sure that you will be treated right. Farm and Dairy protects its readers in the terms of its Protective Policy published on the editorial page.

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A Typical Oxford County Farm

I BECAME acquainted with Mr. John Anderson, principally because I ride my bicycle on trips into the country. If you drive a car, all attention must be given to the machine and the road in front of it; if you have a lively rig, it is a nuisance getting out to open gates, always taking a chance that the horse will not stand while a gate is being opened and then closed again. But with a bicycle on good roads, you can take in all points of interest on the landscape, and it is no trouble in the world to stand the wheel up against the fence and stroll into a farmyard for a chat. It was on one of these wheeling expeditions, on a fine day last May, when some three miles from Tillsonburg, I noticed a big red barn with two big silos at the end of it and a farm standing that had a general look of prosperity. The rural mail box told me that this was the home of Mr. John Anderson. I found the proprietor himself, with the help of his son, remodelling the back kitchen.

Mr. Anderson's farm I found to be one of the larger farms of Oxford county. It consisted of 783 acres, practically all of it under the plow. At the time of my visit 12 cows were being milked, but generally 20 to 25 cows supply milk to the Tillsonburg condensatory. In addition to the milk, grain and hay are sold. Sixteen to 20 acres of corn are grown, this being a sufficient acreage to more than fill

the two silos, 12x36 feet. I remarked on the large silo capacity.

"We feed ensilage the year round," Mr. Anderson told me. "In addition to the ensilage, we feed grain the year round. We buy shorts and bran to mix with our home-grown oat and barley chop. Our cows average us at least \$100 each at the condensatory, and you have to feed well to get returns such as this. My cows are all high-grade Holsteins."

Pigs were at one time an important source of income to the Anderson farm, but since they have started shipping milk to the condensatory, fewer hogs have been grown.

Mr. Anderson has been on his present farm only a few years. He made his first start on a good 160-acre farm in the same county, Oxford, and when his oldest boy grew up and got married, he gave him the home farm. Still hale and hearty, the old gentleman is now shared by his second oldest son as his right hand man. Perhaps some day this boy, too, will be wanting to make a start for himself, and then we presume he will have bought and paid for two farms. Mr. Anderson will be quite content to really retire from active work, or at least from anything so strenuous as the management of an Oxford county dairy farm.

Farming a Village Lot

Mrs. P. J. B., Pontiac Co., Que.

WE always keep a cow and find we can sell about three and four pounds of butter weekly after keeping what we need. We never stir ourselves for good fresh milk, cream or butter. Pasture for the cow costs \$3 for the season. Two tons of hay and 300 pounds of bran and ground grains brought her through last winter. The calf sells for \$8.

The skim-milk and butter-milk help out the spring of nice growing pig or two. These are fed on shorts, with sometimes bran or whole grain, but we find barley, either boiled or raw, sometimes alternately, pay best when all the feed has to be bought. In summer we give them mangolds, turnips and weeds out of the garden to help out their grain ration, and on an average we are always able to have pigs of between 160 and 200 pounds at a cash expenditure of about \$10 each for feed. That at a general price of 12½ or 13 cents leaves us a net gain of between \$10 and \$12 each. Many people think it does not pay to keep pigs and buy feed for them, but we think we have solved the question of meat at a reasonable price the year round for we generally kill two pigs every year; one in the fall and the other in the spring.

Last year we decided to try poultry and started out by sending \$5 to a breeder for a pair of Black Minorcas. We asked for one-year-olds but received a cockerel and a three-year-old hen. With breeders do not help along. Their business by such methods. The experiment with pure-breeds proved a failure, and we had to be content with an early hatch of nondescricts and half-breeds. However, we were able to raise a lot of chickens, old hens and eggs to come out with a clear balance on the right side of \$4.84, and we have still 10 in our flock.

Our garden kept us in cabbage, carrots, onions and other vegetables all summer and winter, and we sold about \$5 worth besides. The product of our garden and of our cows, pigs and chickens helps us very materially in providing for our table and in raising a family of small children under village conditions.

Decide now to have this silo —It will pay you

YOU cannot make a better paying investment. If you doubt this, ask any man who is using an Ideal Green Feed Silo.

Good silage reduces feeding cost 15 to 20 per cent. It increases milk flow 20 per cent. Beef cattle and sheep thrive on it better than on any other feed.

Having silage to feed is like having rich summer pastures all through the winter. If you had an Ideal Green Feed Silo this winter you would have saved enough money to pay for the silo before spring.

Now is the time to plan for a silo for next winter. In selecting a silo, remember that it is GOOD silage that is most profitable to feed and that GOOD silage can only be produced in a GOOD silo.

A "cheap" silo and good silage do not go together. Something that is claimed to be "just as good" is never as good. A "cheap" silo is bound to be an inferior silo and it cannot produce good silage. A "cheap" silo or a silo you erect from "cheap" material will prove the most costly you can buy.

The few dollars you might save on the first cost by buying such a silo will be lost many times over in the poor quality of the silage, the trouble and expense you will be put to in keeping the silo in repair and in its short life.

An "Ideal" costs nothing because it pays for itself. An Ideal Green Feed Silo will pay for itself in one year and will last from 15 to 20 years. It will preserve your silage perfectly. It is the most profitable to own because it returns the biggest profit on the money you invest in it.

Do not take a chance. Do not buy any silo until you get all the facts that prove that you get more for your money in the "Ideal" than in any other. It costs nothing to get this information and doing so will be the means of insuring silo satisfaction for you and will save you many dollars.

Write today for catalogue, prices and complete information.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole distributors in Canada of the famous De Laval Cream Separators and Alpha Case Equipment. Catalogues of any of our lines mailed upon request. MONTREAL PETERBORO WINNIPEG VANCOUVER 50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



A Catalogue Library

Down in a drawer of my desk—and within nice easy reach of my chair, I have two neat little books of my own. They are not books of the style you are thinking of—these are catalogues. My friends sometimes wonder why I keep such a small little pile of these. But I make good use of them. They are some of my reference books.

It is marvelous the amount of information and the explicit and clear, neat illustrations to be found in the present-day catalogue. One just came to my desk yesterday. It is on steel barns and building materials, and is a most attractive one. Supposing I was never going to build a new barn, yet I know I have to-day a much keener appreciation of their construction and good points of reading it than ever before. And if I had a new barn in mind, most certainly I would want to know all about steel framed ones. The catalogue is about the only way—least the easiest and quickest way to find out.

What I have said only emphasizes the "worth-while value" of the modern catalogue. There is scarcely a day goes by but what we get a good suggestion or an idea from one. Only last week a man told me of a high grade silage had put into practice on his silo. He filled it full, and when settled, the silage would just be to the top of the silo. He got the idea from a catalogue.

My point is that in our farm homes, we should have a particular place where catalogues would be kept. It could be a reference catalogue library. You would be surprised how many of you would want to refer to some man's machine—or the cost of materials for this and that. It would mean that you pay for the smaller troubles—such as we have had, ransacking the house from room to room to find the "weed catalogue" when father or mother wanted to "send in an order."

You wouldn't think of buying a purchase without a catalogue. Why not in other things? Yes, it pays to have a catalogue. If you are about to buy some piece of machinery this spring, look over the list of firms whose catalogues are offered you in this issue of Farm and Dairy. If it's a plow or a manure-spreader, write for the Cockshott or Nisco catalogues. If a fence, there is Frost, Page, Banwell-Hoxie; if it's a barn, write for the G. C. or the G. C. or write the Lister book on silos; or steel house plan, write the Woodstock firm. No matter what it is, get their literature and know about their goods. And when you send your order, may we ask you to kindly mention Farm and Dairy. Run over the list now and drop a card for the ones you need. E. E.

CALDWELL'S

The scientific farmer has discovered the one WASTELESS and PROFITABLE way of weaning up or raising calves.

The liberal use of

CALDWELL'S Cream Substitute CALF-MEAL

Analysis shows that it contains practically the same nutrient as whole milk, at a fraction of its cost. It is vastly superior to imported calf-meals, for the simple reason that the foreign manufacturers must sacrifice Quality to meet the heavy freight and duty charges. Like our famous Molasses Meal our Cream-Substitute is guaranteed by the Government, and its analysis plainly printed on tag attached to every bag.

N.B.—Ask us to show you how much money you can save annually by using Caldwell's Cream Substitute. Your Feed-man handles it. If he's not, write direct to us.



The Caldwell Feed and Cereal Co., Ltd., Dundas, Ont.

Makers of all kinds of High-class

STANDARD FEEDS

OUR FARM HOMES



There are many successful short cuts in work and living, but none in character building.

Where the White Nun Walks

BY E. EVERETT GREEN

IT was the tradition at Whiteladies that not only all the daughters but that all the granddaughters should be married from there.

It was a pretty family custom, which must have entailed a good deal of trouble and cost upon our delightful, picturesque, white-headed grandparents, whom we all adored; but it was the tradition of the house, passed down from generation to generation, and the family gathering, which became frequent as we girls of the rising generation grew up and were asked in marriage, were a source of great happiness to those who took part in them; and a family wedding was a more intimate and interesting event in our family, by consequence, than it generally is in these hurrying days of the twentieth century.

Somewhat when you reached the long beech avenue which led up to Whiteladies, and passed through the wrought iron gates, set in the high stone wall which encircled house and gardens and which portion of the park, you seemed to leave the twentieth century behind and almost expected to see cavaliers with love-locks protruding the green glades and wide stone terraces, with graceful stately ladies on their arms—powder on their hair, patches on their faces, their looped petticoats and trailing brocades making patches of vivid color against the old stone walls.

The house was all mullioned windows, oriels and unexpected corners and angles. It was very big, covered much ground, yet never overwhelmed you by its size or grandeur. It was like the grandparent themselves—beautiful, stately, mellow, benignant. There was a hush about it which awoke to sweet sounds—the laughter of happy children, the gay calls of girlish voices, the beat of flying feet to the dances in the long ball-room, the lilt of music awakened not by hired professionals but by the skilled fingers of the daughters of the house or their children.

The blare of the motor horn was seldom heard here. The creek of its breath seemed desecration to the sweet fragrance which hung over Whiteladies.

"Isn't it delicious to be here again?" cried one to the other, as we dined up and down the long corridors and ran to grandmother with a hundred little confidences and a thousand trivial questions, always welcomed, always kindly considered. Grandmother was one of those beautiful persons who was never in a hurry, who always laid down her book or her pen to give you her full attention, who always listened to what you had to say. Her manners were as lovely as her beautiful white hair. Both seem going out of fashion now—replaced by transformations and "snaps."

It was Esther who was to be married this time, and she had asked me to be one of the bridesmaids, and I had promised I would, though now I

was getting well chaffed for it.

"Three times a bridesmaid, never a bride!" they chanted in my ears, but I did not care. Esther was my favorite cousin, and she was going away to a brilliant life led in foreign courts, and everybody said that her husband would be an ambassador in time. She was making a rather brilliant marriage, and we were all proud of her and her prospective future. Eustace Barrington was very delightful to us, and his presents for the bridesmaids were lovely. It was going to be a charming wedding. There were to be eight of us girl cousins in white satin—perfect little ducks they looked; and two tiny toddlers of girls, dressed as the mites were in the days of the Stuarts. You wanted to pick them up and kiss them, they were so bonny!

Then the dressmakers had all been true to time, and nobody was worried or hurried; and the only person yet to arrive was a certain "Tony Talbot," who was to be the best man to Eustace on the eventful day. He had some engagements to keep which would prevent his coming till just the eve of the day; and he was to bring with him a case of family jewels, which were being re-set for Esther, but which Eustace particularly wanted her to have to take away with her on departure.

When the weddings at Whiteladies took place, the dower-house in the park was allotted to the bridegroom and his immediate supporters. Practically they belonged to the house party, but the convention of the house occupying a different abode was thus observed.

And now the eve of the wedding-day had come. We had decorated the church, we had made the bride's bouquet and our own with the help of the head gardener. Bought flowers were taboed at Whiteladies, and how much more fragrant and delicious were the graceful nosegays made and designed by loving hands, and interwoven, as it were, with their wishes and bright hopes! The house was full from end to end, the echoes seemed all awake and stir. It had been hard to get the children to bed. Yet there was no confusion or undue hurry perceptible. Dinner was served with all the quiet, simple ceremony which belonged to the house, and at the long table only one empty place indicated the non-arrival of to-morrow's best man.

"It is all right," Eustace told us. "He may be late; but he will be here. I had a wire at five o'clock. It is the jeweller who has run things a bit close. But Tony will be here some time to-night. You can always trust him when he says a thing. I'm sorry, though, that he could not come before to make your acquaintance. He is a nice fellow. You would have liked him."

It was a warm, still, saturnal night when we girls—the bridesmaids—adjourned by common consent out upon one of the terraces, where the full moonlight made wavering lights and shadows, and squares of light from open windows lay yellow on the grey flags. We were laughing together over matters past, present and future, when somebody exclaimed:

"Anybody going to look for the White Nun to-night?"

Now there was a legend at Whiteladies concerning a certain long grass-grown walk about a quarter of a mile from the house, and near to the ruined chapel which marked the site of an old monastic foundation. Prohibitively the present house had been built up out of the material of the ancient nunnery which had been swept away by Henry's Cromwell. And, of course, there were traditions of ghostly happenings in and about the place, though

these were not very definite or well authenticated. But the tradition of a White Nun, who walked to and fro in the grass-grown avenue beneath the yew trees, was firmly believed through the countryside; and it was always whispered that the most likely time to see this ghostly visitor was upon the eve of some family "happening"—whether the occasion might be a birth, or a death, or a marriage.

So it had become amongst the girls of the house something of a point of honor for one of their number (you must not go in couples—the Nun had never been seen except by a solitary watcher) to go forth alone in the dark



Sturdy Boys Who Would Like to be Farmers.

The big boy standing and the boy seated have both been assigned to homes since the photograph was taken. The two on the left are six and nine, and the two on the right are nine and seven years of age. They are all Protestants. The boy seated there are in the same Children's Shelter, a Roman Catholic orphan boy, born August 17, 1916, and three Protestant children, the youngest about one year and eight days of age. Those interested write address to Mr. Ames Tovell, 251 Queen St., Guelph.

to the place where the White Nun walked, and give her a chance of showing herself, and the watcher a chance to cover herself with glory by having seen her.

Truth to tell, these vigils had not been very successful. Once Ada had come tearing back as white as a ghost, declaring that the Nun was sitting on a stone and moaning. But alas!—inquiry and investigation proved the Nun to be nothing more romantic than a dun-colored Jersey cow who had been unwell, and isolated from the herd, had escaped into the grounds and was very sorry for herself on many counts!

However, it so happened that Ada married within the year. And Ellen, who went ghost-seeking at her marriage, was a bride some fifteen months later. It had been Esther who had gone to look for the Nun last year at Lucinda's wedding, and so tradition was growing that whoever dared make the venture was to win a husband before very long.

"Then Maude shall go!" cried Judith's merry voice. "Look here, you others. It's quite time our dear Maude did something to distinguish herself! And since she's going to dare to be a bridesmaid to-morrow for the third time, it's only right and proper that she should take the antidote as far as is possible, and go ghost-hunting to-night! Perhaps the Nun keeps her hands up her wide sleeves, and drops their microbes about broadcast! Anyhow, we'll send Maude! I bet she'll find a mortal funk! I was going to volunteer for the service, but I'll wait for my chance on the eve of her wedding. I won't bet that it will be within a year from now!"

(Continued next week.)



Officers of the Dominion Grange.

During the time when the Dominion Grange held its annual meeting in Ontario recently, a photograph of the officers was secured, from which the above illustration is taken. Reading from left to right they are: President, W. E. Leeson; Vice-President, Miss D. Fletcher, Middlemarch. Second vice—Miss M. E. Thompson, Palmerston; Clerk, Henry Glendonish, Manilla; Treasurer, J. C. Dixon, Moorfield; Master, Miss Hattie E. Robinson, St. Thomas (the live cow, whole Grange). Third vice—John Pritchard, Gorrie; Gatekeepers: One of the old-time members; J. A. Carwell, Palmerston; Overseer, W. E. Ward; J. St. Thomas, Past Master, and W. E. Leeson, Aylmer, Assistant Steward.

Light on Scriptural Prophecy

The Fig Tree and Israel

In last week's issue of Farm and Dairy you said that the fig tree of Matt. 21: 21 represented the people of Israel or the Jews, and claimed that because the Jews are once more showing signs of national life and making claims to regain possession of Jerusalem (after the present war), this is one of the strongest reasons for believing that the second coming of Christ may be near. What reason have you for believing or saying that the fig tree represents the Jews?

In Isaiah 6, verses 1 to 7, the prophet Isaiah likened the children of Israel to a vineyard which had been given every advantage and care, but which, instead of bringing forth good fruit brought forth wild grapes. Thereby he foretold that the Jews, in spite of the great revivings and blessings given unto them by God, would fall as a nation to live righteously, and therefore judgment was to come upon them. In Matt. 21: 21; 23 to 46, and in Luke 20: 9 to 13, Christ, by means of his parables, reminded the Jews, all of whom were familiar with the prophecies of Isaiah, of that prophecy. By the son, Christ meant Himself, in Matthew's account (verse 45) we see that the chief priests and the Pharisees knew that Christ meant that they represented the wicked servants. The parable of the barren fig tree (Luke 13: 6 to 9) was given to the Jews with the object of conveying the same warning. Note how in the seventh verse Christ mentions that for three years (the extent of His ministry up to that time) the owner of the vineyard had been looking for fruit. Christ offered Himself to the Jews as their promised Messiah and King. In their blindness and wickedness they rejected Him. Finally, after His claims to be the Messiah had been rejected by the chief priests and scribes (the spiritual leaders of the Jews) in the temple (Matt. 21: 12 to 17) He cursed the fig tree (Matt. 21: 18-20). This was symbolical of the casting off of the Jews temporarily, as foretold in Isaiah 6: 6 to 7. Christ then began to foretell the destruction of Jerusalem, the features which were characteristic of the end of the age, and to speak of His second coming. In Matt. 24: 3, we read how His disciples approached and asked Him what were to be the signs of these great events. As one of the signs which should precede His second advent He mentions the fig tree (verses 31 and 32). By this His disciples knew that He referred to the people of Israel, who were to be dispersed and later regathered to Jerusalem (note Isaiah 11: 10 to 13, and many other Old Testament prophecies). The cursing of the fig tree by Christ always troubled me until I understood its meaning, as it seemed as though Christ had acted in anger. All Christ's acts we find, when we study them carefully, had wonderful meanings of this character.

Will the World be Christianized?

THOSE who expect the second coming of Christ seem to think that the world, morally at least, is not growing better, and that when Christ comes again He will come in judgment. Last summer I heard a minister give a splendid sermon on the parable of the leaven (Matt. 13: 33). He said that the leaven represented Christianity, and that the parable meant that in time the whole world would be Christianized. Does not this contradict the other view?

The interpretation of the parable of the leaven which you mention is absolutely correct, but by our Lord's own interpretation of the parable of the tares and the wheat (Matt. 13, verses 24 to 30 and 27 to 43) as well as by the parable of the net (Matt. 13, 47 to 50). Both of these parables show clearly that at the end of the age there will be a mixed condition of

good and evil on the earth, that the good will be preserved and the evil destroyed. We should remember that Christ, was speaking to the Jews, who were commanded never to use leaven in any of their feasts. Their laws required that they might even be put to death for using leaven under certain circumstances. Thus, when Christ spoke of leaven to them they immediately thought of it as something evil, not good. This they were justified in doing, because Christ Himself always spoke of leaven in an evil sense. (Note Matt. 16: 6 to 1 and Mark 8: 16, also 1 Cor. 6: 6 to 8.) Note also that the meal represented the flour or wheat, which always stands in Scriptures for what is good. (Matt. 13: 23 to 30.) Christ, therefore, would not speak of mixing something that was good with something that was good in order to make what was evil good. Dr. Scofield, D.D., in his reference to the Bible, summarizes this point as follows: "The parable constitutes a warning that the true doctrine, given for the nourishment of the children of the kingdom (Matt. 4: 4; 1 Tim. 4: 6; 1 Peter 2: 2) would be mingled with corrupt and corrupting false doctrine, and that officially, by the apostate church (Matt. 1 Tim. 4: 13; 2 Tim. 2: 17-18; 4: 3 to 4; 2 Peter 2: 1 to 3). It is generally realized that many false doctrines are being taught to-day."

The Two Views Explained.

WHERE can I secure a good book setting forth the different interpretations of the Scriptures, as given by the post-millennialists and the pre-millennialists as to whether the world is to get better before Christ comes or after? One of the best is "The Second Coming of Christ, Pre-millennial and Imminent," by Dr. C. T. Halstead, pastor for the past 25 years of the First Baptist Church, New York. It may be obtained through the Book Department of Farm and Dairy for \$1.00 with ten cents added for postage. This book gives a striking summarization of Scripture passages, and has had a wide sale.

Yours of recent date reminding me that my subscription to Farm and Dairy has expired, received. I certainly do not intend to discontinue taking your paper. I like Farm and Dairy too well for that. Being a dairy farmer and a Holstein breeder, your paper appeals to me very strongly.—John C. Chisholm, Lower South River, Antigonish Co., N.S.

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Should we say life assurance or life insurance? Many insurance (or assurance) people have wrangled over this.

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Selecting Styles and Materials Wisely

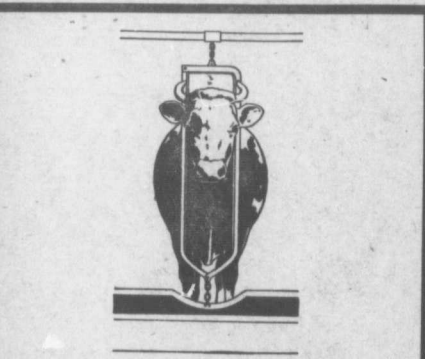
Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folk. They can be relied upon to be the latest models and include the most modern features of the latest pattern. When sending Farm and Dairy your order please be careful to state bust or waist measure for adults, age for children and the number of pattern desired. Price of all patterns to Our Folks, 10c. each. Address all orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



THE natural sudden change in color clean is to slight as should be v There is no dishonest in pleasant to as possible. Applying the household ugly furnit means in be conspicuous obliged to g this more or be ugly, in oak is a go which is un the more i in a conspicu line.

Fitting the Now the s arger sider careful ture that is should not piece of furn is a contras becomes an as much as it is a disa gainly shape ment, while color and worthy orna ant thing t furniture is of the furnit it is without unattractive circumstance the room in of the furnit will seem to main color e-standing fe when it is c to do so pla pieces of fur of the sunlit things in the

Let us supp er of Furn published o highly polis for the din object in furn the defects of as much as p this a medium chosen for brown but on. The floor s oak and wax



A Little Investment in Cow Happiness will Pay Big Dividends

It is in the duty and of farming that modern equipment most surely and quickly pays for itself in increased profits. A small sum invested in equipment for the increased comfort of your cows will earn more than gratitude from them—it will increase the milk flow. An unhappy animal cannot be a productive animal. The money-saving possibilities of a dairy farm depend directly on the treatment of the stock. The money-saving possibilities of modern equipment will be apparent to you also if you read

The Dillon Book on Stalls and Stanchions

In it we have tried to explain, in terms of dollars and cents, the importance of Dillon "Stability" Stable Equipment as a farm asset. We show how, with smallest possible outlay, you can have a sanitary barn, and one in which the labor of caring for the stock is reduced to a minimum. The book tells in detail the features of Dillon Stalls and Stanchions that recommend them in the shrewd judgment of the modern farm owner. You should get this important Dillon book, and with it the expert advice we are ready and willing to offer relative to the remodeling of your barn.

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Write for the Stall and Stanching Book. With it we will send, if you ask us to, our latest book on Stanching Equipment in general. Also, if you will send us information as to how many cows you have to stable and what sort of equipment you now have, we will furnish valuable advice (without cost or obligation in any sense) on how to improve that equipment at small outlay.

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HOW many of us are in the habit of studying the value of materials, such as appropriate combination, harmony of color and wearing quality, and suitability for the purpose for which it is intended when our buying clothes for ourselves or other members of the family? Those of us who lack these instincts, should endeavor to cultivate them by studying those who have good taste in selecting their wearing apparel, and by reading practical articles on fashions and materials for each season as they come around.

One of the style features for the coming season will be fabrics of every description in striped designs. These stripes are shown in everything from cotton to silk. Authorities also tell us that there is to be a new kind of linen for next summer's suits, known as Comack linen. It is claimed that this linen will come in a variety of colors, is durable, and will crease but little.

1520—Girl's Dress. This dainty little frock may be made in two or three ways. As shown in the large view, it is quite chic with the fancy attaching for trimming. If desired, the collar and hem of skirt might be trimmed with braid which is so fashionable now. In the smaller view a belt is added which gives the dress a decidedly different appearance. Four sizes: 4, 6, 8 and 10 years.

1511—Hats for Young Girls. Young girls such as the ones here illustrated are being shown quite extensively this winter and make good hats for school wear or skating. The hats shown here are also suitable for misses' wear. Cut in three sizes: 3, 2, 8, 10 to 14, 16 to 20 years. The head sizes are 20, 21 and 22 inches. It will require 1/2 yard of material for No. 1, and 3/4 yard for No. 2, of 22 inch material for sizes 16 to 20 years.

1521—Boy's Suit. We must not forget

mother's little man in our selection of fashions, and here as shown a very neat little suit. It is cut in Russian blouse quality, and features of the paper pattern, such as are so frequent, instead of Four sizes: 3, 4, 5 and 6 years.

1513—Miss's Dress. The waist of this costume may be made in either the high or low neck effect as shown by a favorite on this account. Cuffs and upper part of the collar are made from val-de-jeune, which makes the skirt quite full. This design calls for two patterns, sizes from 34 to 44 inches bust measure, and the skirt in sizes from 22 to 33 inches waist measure.

1514—Dress for Misses and Small Women. This model has a style all its own. Notice the panel effect in the back of the waist which extends into the skirt to meet the yoke, which is on either side of the front and back panels. This skirt is laid in box pleats at the front and sides. Three sizes: 16, 18 and 20 years.

1516—Lady's Apron. The apron design here shown is somewhat different from others we have been showing in these columns, in that the fastenings is at the shoulders. The apron fits well around the arm and should prevent any slipping of the straps on the shoulders. Three sizes: small, medium and large.

1518—Now is the time to pick up some dainty material from which to make a comfortable and attractive negligee for summer wear. A kimono made in the style of the one shown herewith should be a decided addition to the wardrobe. If preferred, this model may be used to make a dressing sack in shorter length as shown by the smaller view. Three sizes: small, medium and large.



A Compromise in Furnishing

THE natural instinct when one suddenly discovers that one's fringed halls are not perfectly clean is to keep the hands out of sight as much as possible. So it should be with all forms of ugliness. There is nothing sadder than dishonest in making that which is unpleasant to look at as inconspicuous as possible.

Applying this rule to furnishings the housewife who has fallen heir to ugly furniture should use every means in her power to make it as inconspicuous as possible, if she is obliged to go on living with it. There are two ways in which furniture may be ugly, in color and in shape. Golden oak is a good example of furniture which is unpleasant in color, while the more unweildily lacking furniture is conspicuously missing in grace of line.

Fitting the Color to the Furniture.

Now the housewife in choosing the wall color for her room should consider carefully whether she has furniture that is beautiful in itself, for it should not be forgotten that every piece of furniture in the room, which is a contrasting color from the wall, becomes an article of ornament, just as much as a vase or a picture. If it is a disagreeable color or an ugly shape it makes an ugly ornament, while if it is beautiful in both color and shape it becomes a very worthy ornament indeed. The important thing to decide is whether one's furniture is sufficiently beautiful in itself to deserve such prominence. If it is without charm or is positively unattractive then it is wiser, other circumstances permitting, to decorate the room in a color as nearly like that of the furniture as possible, when it will seem to become a part of the main color scheme and not an outstanding feature of the room. And when it is convenient and reasonable to do so place the most beautiful pieces of furniture in the direct path of the sunlight and the less lovely things in the shadow.

Let us suppose, then, that the builder of Farm and Dairy House No. 4, published two weeks ago, has highly polished golden oak furniture for the dining and living rooms. The object in furnishing will be to conceal the defects of the coloring of this wood as much as possible. In order to do this a medium brown color should be chosen for the walls, not a troy brown but a warm pinkish yellow one.

The floor should be stained a light oak and waxed. One of our readers

writes that she has stained her floor by applying a mixture of two ounces of permanganate of potash in a bucket of boiling water, but in order to avoid getting too deep a color it would be advisable to add the potash a little at a time and try it on a piece of the flooring, which is sure to be lying around somewhere, the scrap heap after the building of a new house. When a brown color just a shade deeper than the wall is obtained apply it to the floor with a brush and wax thoroughly before walking over it. Over this the house builder may spread home-made punched rugs of rags dyed a rich golden brown and having a small conventional border in old blue or soft rose. Be careful to avoid using any black in these rugs as it makes a very ugly combination with dark brown.

The housewife will do well, at the outset, to buy a bolt of dairy cream scrim and make all the inside curtains throughout the house of it, this being much the most economical way of buying curtain materials. If the parlor permits she will find the living rooms can be made much more beautiful by the addition of over-curtains of cretonne or madras in combinations of green and rose or green and metallic blue.

In the making of curtains it is well to make a pretty heading at the top of the first curtain and then slip it over the wire or pole in order to get exactly the right length. Then turn it up at the bottom, allowing a deep hem and leaving it long enough so that it just a little more than touches the window sill, hanging straight down. It will probably be found when the curtain is finished that in some mysterious way it has shrunk a little and just touches the sill.

Over-curtains are most pleasing when finished with a valance across the top. This is usually made by cutting a strip of the material in two lengths and sewing the ends together. The cut edge is then finished with a heading for running over the wire or rod. Sometimes this valance runs right across the window on a separate rod, but it is often put on the same rod as the over-curtains, running between the two curtains.

As the kitchen and the two halls are not too well lighted they should be tinted a pretty mellow buff color, while the bedrooms may be tinted the same shade or a restful grey green, as the owner feels disposed. All the woodwork upstairs should be finished in white or cream enamel.

A charming suggestion for making the porch out to a living room will be

found in the illustration on this page. While this porch has a very elegant appearance it is really due largely to the bit of lattice work at one end and the beautiful plants. The furniture itself is very moderately priced and the floor is covered with braided rug mats, in the making of which so many country women are experts.

Mother's Saving Ways

Mrs. T. Murray, Elgin Co., Ont.

EVERY mother has her own peculiar ideas along the line of saving. Along with her desire to save, the spirit of self-sacrifice is dominant, and in many cases this self-sacrificing nature is apt to occupy such a large place in a mother's make-up that she does herself harm in her anxiety to do the best possible for the family.

A saving way that many mothers have is along the line of their own personal wardrobe. Once in a long time they buy a new dress for themselves, probably a fairly expensive one too, then they keep it in the clothes closet, and bring it out only on Sundays or very special occasions. Nowadays especially, when fashions

change with such rapidity, a dress goes out of date inside of a short time. But there is mother's dress, almost as good as new, because she has taken such good care of it, and she cannot think of throwing it away or putting extra expense on it to have it remodelled, so she wears away at it, out of fashion though it may be.

For those who stay at home a great deal, the custom of dressing up frequently is an admirable one. Somehow clothes seem to have a moral effect on us, and when we put off our working apparel and don a dress, we feel improves our appearance, it rests and refreshes us.

The girls of the family can do much to help mother in the carrying-out of this worth-while plan, by showing their willingness to forego in some pleasure or bit of finery in order that she may not have to do without some attractive clothes, for wear both at home and abroad. Cannot we who are mothers too, endeavor to keep in mind and carry out the ideas contained here by allowing the family to see us in our attractive clothes while they are new, instead of allowing their freshness to fade in the seclusion of the clothes closet?

At 40° below zero—
225 MILES north of Montreal is the town of Chicoutimi, where the temperature in winter goes down to 40° to 50° below zero.

also rendered the road very smooth for the traffic.

"We have since made over 20 000 square yards of macadam with "Tarvia-X" in the commercial streets, and up-to the present its use has given us entire satisfaction."

Made in Canada

Neither frost nor rain nor automobile traffic can disrupt a tarvia-bonded road. Tarvia is a coal tar preparation that unites with the macadam surface and hardens to a tough, waterproof, weather-proof matrix.

Tarvia
Preserves Roads
Prevents Dust

It is something of a task to maintain roads under such frosty conditions, but Chicoutimi does it cheaply and well with Tarvia.

Here is the report of Jean A. Claveau, the town engineer, in his own words:

"During the summer of 1911, we made a trial of the "Tarvia-X" in the macadam construction of our principal streets. This street is still in a perfect condition and Tarvia has not only served to bind the stones well, but it has

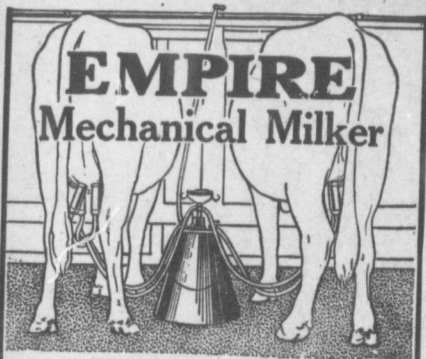
It adds a little to the first cost and pays for itself in savings of maintenance charges.

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Rue de Ste-A, Chicoutimi, Quebec. Road constructed with "Tarvia-X"



EMPIRE Mechanical Milker

Takes all the Drudgery out of Dairying— Turns Wages into Profits

- Frees you from depending on hired help—
- Makes it possible to keep more cows—
- Milks them more Regularly and Uniformly—
- Coaxes them to Let Down Milk more Freely—
- Protects the Milk from Dirt, Germs and Odors

What it Accomplishes

One man with one double or two-cow unit will milk 20 to 30 cows per hour—one man can operate two double units. An Empire Mechanical Milker will quickly pay for itself with even a very few cows. With one or two double units you can handle a good big herd alone, and do it quickly and easily.

The "Empire" so successfully imitates the action of a sucking calf that it is easier on the cows than hand milking, and usually gets more milk. Flowing directly through the tubing from the closed teat cups to closed pails, the milk is always protected from stable air, dirt and germs.

Thus, the "Empire" gets more and better milk, saves time and wages, and solves the serious problem of hired help.

How It Works

A compact air pump creates a vacuum in a steel tank. This vacuum is transmitted along the stalls by piping to which the milking units are connected.

Each unit consists of a pail, a pall lid, teat cups complete with connections for air and milk, and a Pulsator. By means of this Pulsator, vacuum (suction) and atmospheric pressure are alternately applied to the linings of the teat cups, causing them to collapse and expand by turns, massaging the teats by the pressure, then drawing the milk in spurts by the suction. The instant it is drawn the milk flows into the closed pails.

Our literature about the Empire Mechanical Milker is of interest to owners of large or small dairies. We will send it to you on request without any obligation to you. Just write us saying, "Please send me information about Empire Mechanical Milkers". Address Dept. E

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MONTREAL TORONTO WINNIPEG

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.

P. E. I. Dairy Association

THE annual meeting of the Prince Edward Island Dairy Association was held recently at Charlottetown. The report of the year's work was very satisfactory. Some very valuable and instructive papers were read. At Wednesday's meeting, Mr. W. M. Lea spoke on "The Most Economic Feeds for Dairy Cows," and Prof. Ross on "A Survey of the Dairy Industry," which brought out a profitable discussion.

As a result of the year's work two of the creameries have adopted cream grading. An increase in the amount of milk for the year was reported, as also of the financial return. A gradual change to winter dairying was advocated. When farmers have their cows freshen in the fall they will be in a better position to raise their young stock in a thrifty condition, and be in just as good a position to supply milk to factories and creameries in summer. A noticeable feature was that the smaller factories are all, or nearly all, going to the wall, with the turning of attention toward centralization. Another point brought out was that the sections where farmers have taken up and stayed with cow testing the amount of milk per cow is increasing, and the farmers consequently are more prosperous.

Comparative Statement.

The milk supply in 1915 totalled 22,774,181 lbs., a respectable increase over last year. There was a slight decrease in the make of butter, but the total milk supply for both milk and butter was 36,968 lbs. better than last year. The gross value of the output was \$327,700.04, an increase of \$14,467.73 over the previous year. The value of the total output of both butter and cheese was \$478,764.53, an increase of \$1,676.85. The value of butter and cheese to the patrons was \$395,135.48, an increase of \$2,009.05 over 1914. There were 3,999 patrons supplying milk, as against 4,688 in 1914. The gross value of the output per patron was \$131.31 for cheese, and \$85.71 for butter, a slight increase in both cases.

In the herd competition some splendid records were made. Mr. Fred Clarke, Victoria, Prince county, had 10 cows supplying milk to the Crandall factory, which gave 85,091 lbs., an average of 8,509 lbs. a cow. All the other Prince county competitors averaged from 6,000 to 9,325 lbs. a cow. In Queens county, seven competitors had an output of 6,900 to 8,975 lbs. a cow, all of which goes to show the fine herds of cows in the dairy business on the Island. It is doubtful if such a showing was made in Ontario as was made in the herd competition of Prince county. One Queen county herd averaged 4.14 fat test, and another 4.3. The fat tests on the Island show very high—

The following officers were elected for the ensuing year: Hon. President, Lauchlin Macdonald, East Point; President, J. A. Dowar; Vice-President, W. J. Gibson, Marshfield; Instructor, F. T. Morrow; Secretary-Treasurer, C. B. Macdonald, J. A. M. Kings county, P.E.I.

Prosecutions by Dairy Division
CASES of considerable interest to dairymen was settled on February 23, in London, Ont., when

CLOVER SEEDS

Government Standard

	Per Bu.	\$16.25
No. 1 Red Clover	16.25
" 2 Red Clover	15.75
" 1 Alsike	13.00
" 2 Alsike	12.00
" 1 Alfalfa (Northern Grown)	12.00
" 2 Timothy	5.50
(This seed grades No. 1 for Purity)		
White Blossom Sweet Clover	13.50

Terms—Cash with order.

Bags extra at 25c. each. On all orders East of Manitoba of \$25.00 or over we pay the freight.

We Guarantee Seeds to Satisfy or ship back at our expense. Ask for Samples if necessary.

Todd & Co

Seed Merchants

STOUFFVILLE ONT.



A Sure Prize Winner Windsor Dairy Salt

THE CANADIAN SALT CO. LIMITED

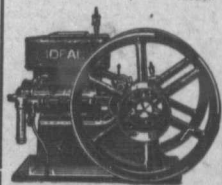
MUSIC TAUGHT FREE

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You can read MUSIC like the quality. Beginners or advanced players. One lesson weekly. Illustrations make every thing plain. Only experts are used to cover cost of postage and usual use. Write for Free booklet, which explains everything in full. American School of Music, 74 Lechmere Building, Chicago

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Grain Grinders, Water Boxes, Steel Saw Frames, Pumps, Tanks, Etc. GOULD, SHAPLEY & MUIR CO., LTD.

EGGS, BUTTER Live Poultry

Bill your shipments to us. Advise us by mail and we will attend to the rest promptly. Egg Cases and Poultry Coops supplied upon request.

The **DAVIES Co. Ltd.** Established 1854. TORONTO, ONT.

ADVERTISE in these popular columns, which others find so profitable—costs you only \$1.00 an inch.

WHITE and COLUMBIA WYANDOTTES, LIGHT BRAHMAS, & C. WHITE LEGHORNS. Michael K. Boyer, Box 23, Hammonds, N.J.

CREAM

WE WANT YOURS. We pay express and furnish cans Profitable Prices Promptly Paid. Write Us. BELLEVILLE CREAMERY LTD. BELLEVILLE, ONT.

the firm of Silverwoods, Ltd., pleaded guilty to four charges laid against them by officers of the Dominion Dairy Division. Two of these charges were for non-branding as dairy butter, butter packed in 56-lb. boxes. The clause of the Act covering this point reads as follows:

"No person shall knowingly sell, offer, expose or have in his possession for sale:

"(e) Any dairy butter packed in boxes similar to those used for the packing of creamery butter unless such packages are branded 'dairy butter';

"(f) Any dairy butter packed,

Are the Horses Ready for the Spring Work?

Timely Hints on the Hardening Process by Jas. Armstrong, Wellington Co., Ont.

THE most pressing problem confronting us in these early spring days is getting the horses in shape for spring work. With us this is a problem of recent years only. During the first years that we were on the farm we had the clearing away of heavy brush from a large part of it, the running of a small portable saw-mill, and the teaming of lumber to the railway station. Our horses were worked steadily all winter and came out in the spring in hard condition and right ready for hard work. Lumbering operations are now, however, almost at a standstill. The farms have been cleared and we follow straight agriculture. Hence extra precautions are necessary to harden our teams in the spring. I have heard men say that they could find sufficient work the year round on the farm to keep their teams in good condition, but we have never been able to do it. Our horses are wintered as cheaply as possible, straw and turpentine making a large part of their ration. They come out in good flesh and spirits, but there is little reserve energy in them for hard work.

Our teams are all re-shod now and they are getting their light work every day. They would get more of it if we could find it. In fact, we make work just to keep the teams busy. We are doing all the teaming possible and going to town more often than is actually necessary. At the same time, the grain ration is being increased and the teams are storing up energy. Under this course of treatment, the horses will be fairly hard by the middle of April, and eating enough good grain to sustain their strength.

It is a foolish policy to start horses suddenly into hard work when the spring opens up, and it is doubly foolish to change them suddenly from light winter rations to heavy grain feeding. The horse systems, accustomed to light winter feeding, cannot absorb the extra feed suddenly imposed upon them, and they lose instead of gain in condition as a result of their liberal ration. In all things we try to follow a moderate, conservative policy.

Coit Culture.

On most farms, ours at least, there will be a colt, or perhaps a team of colts, coming along which will start hard work for the first time this spring. We are getting our colts ready for the work just as we are the older horses. One point that I would strongly emphasize in preparing the colt for its first spring work is that a collar be made specially for it. We buy much of our equipment from a small order house in Toronto, but one thing that I never have bought by mail is horse collars. We take the colts right to the harness maker in town and have him fashion the collar meant for that particular colt. We want a collar large enough that we can pass our hand between the bottom of the collar and the breast, and

moulded or cut into blocks, squares or prints and wrapped in parchment paper unless such parchment paper is branded 'dairy butter'.

A third charge was for having sold dairy butter containing more than 16% of moisture, and the fourth charge was for having in possession and "For Sale" dairy butter containing more than 16% of moisture.

This Act has been in force since 1914, and it is felt that creamerymen and dealers should now be familiar with its provisions. Violations of the Act will be prosecuted in future when evidence of its infraction is obtained by the Government.

that fits nicely at the side of the shoulder, that is, not so narrow that it pinches, or so wide that it rubs.

One of the most common difficulties with the teams in the spring is sore shoulders. The most common cause of this is that the horse sweats freely, and the long winter hair on the shoulders gets full of hard, gummy dirt, and it is this that causes the sore shoulders far more than the pressure of the collar. I would suggest that the shoulders at least be clipped and kept clean, and if this is done there will be small danger of sore shoulders.

This brings us naturally to the subject of clipping horses. The man who will not take first-rate care of his team will be safer to leave them unclipped. The careful teamster, however, will get better service from horses in the spring if they are clipped just when the season of hard work begins. With a clipped team, the blankets must be kept always handy, or chills will result. In clay land, too, I would not clip below the knees or hocks, as it is positive cruelty to work a bare-legged horse where there is danger of its legs getting caked with mud. Clipping, too, cuts down the labor of grooming. In order that I may not be misunderstood, I will emphasize here that this spring clipping is the only clipping that we ever practise. Clipping in the fall, in order to cut down the work of grooming in the winter, is little less than brutal.

Spring work is hard on men. It is terrible for horses, and we owe it to them, on humane grounds alone, to get them ready before the season opens.

Dehorn All Cattle

THE safety of the herdsmen demands that the herd will be dehorned. The comfort of the herd demands that all cows be dehorned. Cows are frequently injured by the horns of their stall mates. Hence the increasing popularity of dehorning. Either regulation horn clippers, or a fine tooth saw, will do the work of dehorning efficiently. Just one point: take off enough horn that a ring of hair will come along with it. Otherwise stubby horns will develop within the next year or two.

The best and least cruel method of removing horns is by means of an application of caustic potash to the horn buttons while the calf is from one to four days old. The hair is carefully clipped from the buttons and the moistened ends of a stick of caustic potash is then rubbed on the spot until the skin bleeds slightly. Care should be taken to prevent the liquid caustic from running off the button, but if only a small amount is rubbed on there will be no danger from this source. If the caustic has been properly applied there will be a dent in the skin where the button appeared and no horns will develop.



Cream Fed Pigs

Are you feeding cream to the pigs? You undoubtedly are.

In the morning you feel fresh and strong; you turn your separator at full speed. At right, you're tired and don't turn quite so fast. You also stop a moment to refill the supply can; the speed slackens and some cream escapes into the skim milk.

Your separator may skim clean at full speed, but, no matter how good the machine, it will lose cream, and a lot of it, when the speed slackens. Many dairymen are losing a hundred dollars or more every year through imperfect skimming. They are feeding cream to the pigs. A marvelous but simple invention now enables you to stop this loss—stop it absolutely. The saving is clear "velvet"—more profit without added expense. You get all the cream with

THE NEW SHARPLES SUCTION-FEED

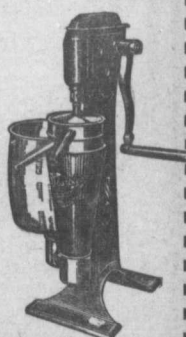
Separator. Whether you turn faster or slower than the regulation speed, the bowl of the Suction-Feed drinks in just the right quantity of milk to insure the closest possible skimming. Does away with speed indicator, which is not a protection against cream loss.

The New Sharples Suction-Feed has many other important advantages. Turn fast or slow, you secure smooth cream of an even thickness. No more streaked butter from mixing different grades of cream—no more dissatisfied customers.

The capacity increases when you turn faster than the normal speed, so you can get through quicker when in a hurry. The large, seamless supply can is only knee-high. The entire machine is made simpler and better than ever.

Send for our new book, "Velvet for Dairymen," which fully explains how you can save the cream now going to the pigs. Also ask for our liberal free trial offer. Do it today, before you forget. Address Department 77.

The Sharples Separator Co.
Toronto, Canada



The Farmers' Grain Exchange

Strong, Vigorous Seed is the Start for a Big Yield.

O.A.C. No. 72 OATS

FOR SALE—Good Clean Seed, true to name, selected from spring winning field a year ago. Price, 50¢ per bush. F.O.B., Woodville. Sacks free.

GEORGE MCKAGUE,
R. R. No. 4, Woodville, Ont.

GOOD PLUMP, CLEAN SEED

O.A.C. No. 72 OATS

Carefully weeded while growing, price 70¢ per bush. Samples sent on request. 16 oz. Cotton Seed, 30¢ extra. Bags hold three bushels.

EDGAR BRODERICK, R. R. 1, Easton, Ont.

GOOD CLEAN SEED IMPROVED BANNER

Good clean seed, true to name, grown on high, heavy clay, 55¢ a bush. Bags extra.

LOUIS SEEBACH, R. 5, Stratford, Ont.

O. A. C., No. 72, OATS FOR SALE

Northern grown, good, clean, true to name, from very heavy field. Price, 70¢ per bush. Sacks free.

JAS. B. MUJR, R. R. 3, Port Elgin.

FOR SALE

O.A.C. 21 barley. Positively free of weed seeds. Gained a price of 22¢ above at Guelph. 90 cents per bushel.

CECIL M. GRAHAM,
R.R. No. 4, Peterboro, Ont.

Well, Sir, that's some fence

Because of its simplicity and amazing strength, "Ideal" Fence excites the admiration of every practical mind. "Some fence" is right. Take a look at it—

Ideal Fence

Notice how the Ideal lock takes a "grape-vine" grip of the upright and cross wires in a strong, even, uniform pressure. There are no sharp angular turns to break the surface of the wire and weaken the grip of the lock. Yet it grips, as you see, the wires in five places—twice on the upright, twice on the horizontal and again where the two wires cross. Thus, while it positively prevents either wire from slipping, it allows both, enough play so the fence can be erected on hilly ground without kink in the line wires. At the same time, it keeps the uprights perfectly straight. You wonder why Ideal Fences are so free of broken or bent uprights? Well, that's the reason.

May we send you a copy of our catalogue which tells the whole story in a factual interesting way? A post card will bring it promptly.

The McGreggor-Banwell Fence Co., Limited, Walkerville, Ontario



Other People's Opinions

Where Shall We Buy?

By E. L. McCaskey.

MOST of my writings in Farm and Dairy have been on such exceedingly practical subjects as filling silos, feeding cows and the other operations around the farm. Today I am going to get away from my regular line and discuss a much mooted subject in this locality—home vs. mail order trade. This letter is inspired by cartoons which have been appearing in our local papers. In these cartoons we are assured that the business depression would disappear if the townspeople and farmers around would only trade at home. Most of the cartoons are addressed especially to the farmers of the surrounding district. They leave the impression that the farmers who send their money away are short-sighted and disloyal. Let us look into the question a little more closely and see if this is so. I would suggest in the first place, however, that to revile the farmer for sending his orders to Eaton's or Simpson's, as our country merchant newspapers are doing, will not regain the trade they have lost. Whoever heard of vinegar being used to attract flies?

I believe the small town business can give almost, if not altogether, as good service and as good value as the mail order houses. That they do not, is usually a result of their own extravagant ideas. In average merchant must live in a fine house, he must have a fine turnout and generally his family insist further on a cottage of their own at some neighboring summer resort. How many of their farmer patrons can afford to live on such an extravagant scale? In no way is the difference brought out more clearly than by a comparison of the life of the merchant's wife vs. that of the farmer's wife. The one is usually engaged in carrying on her social duties, the maid at home doing the work, while the farmer's wife, for her own part, is busy superintending the affairs of her own home and assisting in the solution of that great problem,—how to make the farm pay. Did country wives insist on living as does the wife of the average merchant, we would soon all be bankrupt. And I would just side-step here a little to pay a tribute to the women of the country. Without their assistance, a few of us would be as comfortably fixed as we are. To get back to my subject again, I would point out that there are few merchants who have more actual capital of their own invested than has the average farmer in his farm. Their business requires no more brains and no more training, though of course it is in a different line. They who should be expected to live on a so much better scale than his patrons? Were they content to live as their patrons do, they would be in a better position to meet the competition of mail order houses.

Carrying Bad Debts.

Some months ago, a defunct of the country merchant appeared in Farm and Dairy. It was to the effect that he is also a banker, giving credit to all the countryside, while the mail order houses exact cash. This, I regard as an argument in favor of the mail order houses. If, as a cash buyer, object to carrying the bad debts and supplying credit to slack neighbors. Most of the stores in our town have one price on all their goods. The man who pays cash, pays as much for an article as the man

who has it booked. In fact, one of our grocers makes it a regular practice to give a box of chocolates to each customer who settles up regularly at the end of the month, while we who pay cash when the goods are delivered, get no such bonus. Would it not be a simple thing for our merchants to arrange different scales of prices according as the goods were paid for in cash or credit? This would enable merchants to give their cash customers some of the bonuses that they already receive from the mail order houses.

A big item in the overhead charges of any merchant is the cost of delivery to town customers. It is estimated that every day a pound of rice or a half a pound of tea has to be delivered two miles away. A farmer takes his own goods home with him, but is still asked to pay the same price as the customer in town, who has them delivered on his kitchen table. There are a few progressive storekeepers in Canada who already have two sets of prices, one for the delivery and one for the basket trade. Such economies as these enable the home merchant to meet outside competition.

Keeping Money at Home.

A common argument resorted to by home trade exponents when all other fail is "keeping your money in your own town." Perhaps it is a shame to examine too closely into this hoary old standby. It is not intended to be looked into, merely accepted because it looks plausible. The home merchant quotes a coat at seven dollars. I have seven dollars and I need a coat. Trade at home and the town has still both money and coat. If, however, you buy the same coat from the town only has the coat and two dollars. So the argument runs. What actually happens is this: If I buy the coat from the local merchant, he sends off five dollars to some outside concern in payment for the coat and then pockets two dollars as his profit. The town, therefore, really has the coat and two dollars. The net result is the same in both cases, only when I patronize the mail order house the two dollars is in my pocket instead of the merchant's. Can I, as a normal human being, be expected to kick against an arrangement that leaves me the richer?

In the many years that I have been trading both at home and with mail order houses, I have invariably gotten the best service from the latter. If goods are not satisfactory I can send them back and they will refund the money and express charges. If, however, I take goods back to my local merchant, he will almost insist on exchanging those goods for other goods, even if he hasn't a thing in the store that suits me, and it is almost impossible to get a money back. I have also found that delivery from a mail order house will be made in a few days, whereas if I order goods not in stock through the local merchant, it will sometimes be weeks before they arrive. Mail order houses have studied service. Too many merchants have not.

The Incompleteness of Merchants.

I have also noticed that while merchants are strong on home trade, for their customers, they do not apply the same principle to their own business dealings. The wife of one of our leading merchants takes regular shopping trips to Toronto buying clothes and other necessary articles that she could secure in her own home town. We have an excellent creamery in our town, but all of our merchants do not get their butter from that creamery. Much is shipped in from outside places, and our creamery must go elsewhere for a market for a large part of their product. In fact, the merchants do ex-

actly what I to a mail order they can go money.

I know sound like to cater, rather to consider it. Then let us merchant. I apt to be either busting or willing to ing his best petition, let and give him able. If he most all line merchant is customers a that the pan him to live or warranted by to make differ versus for the leffer is inter the merchant the farmer re whom I know

Month's Fur

A MELITA 16 annual brood boxes of brood give and man. I'm asking them meeting, plowin' tached to the must be of g will be gran. I've been tained, and if each loan made from the pers to has been the signature responsible for the certificate sign. I had a lot of own land. The men the best and the evn will be pr portion to a successful three training camp, reviving suit, clothing and of specific intro.

Conte

I HAVE read by Dr. W. Abortion. I breeder houses, for a prevention, some questions other direct, (1) What is Len can it be either the proper treat, reviving suit, clothing and of specific intro.

Sagot's iodine solution. Phasmocon, troy grams, one-half troy oz. and one pint by any pharme any person who weigh out the stum iodine, a out a pint of v. Your third be the proper arbin to o-as of when abortion also except by spot. There a which might be all the man on -J.W. regarding.

W. L. Williams ary College.

Feeding For

I SEE article in Farm and Dairy. It is a most appreciated if to Mr. Cherr

actly what I do when I send an order to a mail order house,—they, wherever they can get the most for their money.

I know that this letter will sound like the argument of an advocate, rather than of one who is willing to consider two sides of the question. Then let me put in a word for the merchant. I recognize that we are apt to be carried too far in this mail order business. We need our country merchants, and if the merchant is willing to give service and is doing his best to meet mail order competition, let us keep tab on his prices and give him the best chance possible. If he is doing his best he can meet mail order competition on almost all lines of his goods. But no merchant is giving his good farmer customers a chance when he insists that they pay his bad debts, enable him to live on a scale beyond anything warranted by his business and refuses to make different prices for delivery versus for the counter trade. This letter is intended to be as much for the merchants who may read it as for the farmer readers of Farm and Dairy whom I know will see it.

Month's Furlough for Spring Work

A MISTKA order published on March 10 announces that commanding officers of expeditionary units are allowed to give non-commissioned officers and men in training in Canada one month's furlough for the purpose of enabling them to take part in the seeding, plowing, etc. The conditions attached to the furlough are that the men must be of good character, that leave will be granted only on proof that a furlough of work has actually been obtained, and that on return from work each man must produce a certificate from the person or persons for whom he has been working, confirmed under the signature of a clergyman or of two responsible persons resident in the vicinity of the home in question, or else a certificate signed by himself to the effect that he has been working on his own land.

The men thus allowed off to help in the first stages of planting in this year's campaign will be provided with locally not exceeding three hundred miles from the training camp, and they must wear their working suits, leaving their military clothing and equipment with their respective units.

Conjunctive Abortion

I HAVE read with interest the articles by Dr. W. L. Williams on Conjunctive Abortion, as this is something all breeders should and already looking for a preventative. However there are some questions I would like answered, either direct or through your column. (1) What is Lacro's solution? (2) Where can it be bought? (3) What would be the proper treatment by a veterinarian in case of retained foetus or abortion occurs.—"Breeder."

Lacro's solution is the compound iodine solution of the United States Pharmacopoeia. It consists of: Six troy grains iodine crystals, one and one-half troy ounces potassium iodide, and one pint water. It can be made by any pharmacist, or for that matter any person who can have a druggist weigh out the iodine and the potassium iodide, and can then measure out a pint of water.

Your third question, "What would be the proper treatment by a veterinarian in case of retained after-birth, or when abortion occurs?" is unanswerable except by the veterinarian on the spot. There are some general rules which might be laid down, but after all the men on the spot would have to judge regarding which rule to apply.—W. L. Williams, N. Y. State Veterinary College.

Feeding for Official Records

THE article in the Feb. 24th issue of Farm and Dairy on "Feeding and Fitting for Official Records," was much appreciated. I would like to know if Mr. Cherry's answer to question

two where 15 lbs. equal parts of oat chop, bran and oil cake are mentioned, does he mean by measure or by weight. Some breeders also say oil meal while others the same thing. Are they referring to the same thing, or does oil meal mean mixed meal—V. H. Hutton Co., Ont.

The measure is never an accurate method of apportioning the different feeds in the ration of a dairy cow, and when Mr. Cherry mentions equal parts of oat chop, bran and oil cake, he means equal parts by weight. We believe that this was true of all the other feeders whose experiences were given in the article, "Feeding and Fitting for Official Records." The oil meal and oil cake meal referred to are the same thing.

Left Behind

A N Irishman got out of the car at a railroad station for refreshments, but the bell rang and the train left before he had finished. "Hould on!" cried that, as he ran like a madman after the train. "Hould on, ye murderin' old stamo engine—ye've got a passenger on board that's left behind!"

Once Over!

Two diskings in one with a double-action harrow!

Cutaway
CLARK

Disk Harrows and Plows

Save half the time and labor and have a better method. Use a Cutaway (Clark) Double Action Harrow. Its rigid main frame causes the rear disks to cut and turn all the last left by the fore disks—and with equal force. It will

Quickly Cut, Pulverize and Level

the toughest plowed land. The Cutaway disks are of cast-iron steel forged sharp—and they penetrate deep without bringing up stones and make light work. Tongue truck not required—close hitch. Many Cutaway (Clark) Harrows in use six years and still giving splendid service. Your dealer has not the genuine CUTAWAY, write us direct. Be sure to send for our new free book, "The Soil and Its Tillage." Fill now for better crops.

THE CUTAWAY HARROW COMPANY
607 MAIN STREET
HOGANVILLE, CONN.

Maker of the original CLARK disk harrows and plows.



The Engine that Took "arm" out of Farm.



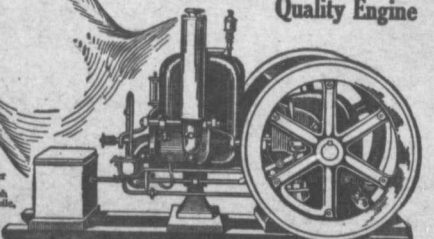
Do less "arm work" in farm work. The "strong right arm," is given a holiday by the "strong, right engine." The Chapman Engine has taken the aches and pains and human drudgery out of farm life. This engine does the work that twenty arms could not do. It is the source of power that a dozen men could not equal for endurance. The Chapman Engine certainly took "arm" out of "farm" and is doing its "thousand-times-as-much" work as arm power could do. It is doing this every week on every farm equipped with this big power producer. There is not one single farmer in Canada, owning from 40 acres up to Why have factories cut out manual labor and adopted machinery? Because machinery does *more* work, at less cost, and does it better. It's just as true on a farm. An engine is ten times as cheap as a hired man.

CHAPMAN ENGINES

Big Power—Little Cost—SOLD ON A GUARANTEE

POINTS OF SUPERIORITY. The Chapman Engine has such an excellent reputation that imitations are already on the market, but it is appearance only. The best Chapman features are patented and cannot be imitated. In selecting an engine remember that Chapman is the only engine with (1) a perfect strain line valve motion; (2) a combined suction and pump feed (spring); (3) a cast iron tank that cannot leak; (4) a specially designed governor; (5) a ball bearing cam motion; (6) a ball bearing engine action; (7) a full frame type frame; (8) a cast iron tank that contains the entire operating and ignition mechanism and protects it by a cast-iron frame, easily removed when adjustments or repairs are required; (9) a fly ball governor that gives a variation of 250 r.p.m. without stopping the engine; (10) sufficient weight to keep it still while running at full speed. If you want an engine that will never fail you, and cost you least in the end—get a Chapman. It is Canada's great

Quality Engine



Write for Full Particulars, Prices and Illustrated Catalog.

ONTARIO WIND ENGINE & PUMP CO., Limited

MFRS. ENGINES, WINDMILLS, PUMPS, BLOCS, STABLE EQUIPMENT, ETC.

BRANCHES: MONTREAL, WINDSOR, REGINA, CALGARY.

82 Atlantic Ave., TORONTO.

March 16, 1916.

Right Now You Need A Pair DELIVERED TO YOU \$325

Don't wear ill-made inferior shoes and suffer with sore, tired aching feet. Buy a pair of our specially made, easy-fitting, durable harvest and plow shoes. We make them in all sizes, oiled-leather, oiled-leather with full waterproofed goat leather soles and heels and solid leathers. They are particularly adapted for farmers, woodmen, millmen, breakmen and laborers—who require comfortable footwear having extra strength and durability.

Palmer's "Hoose Head Brand"

Our shoes are made by specialists on every last right and left basis. If your dealer hasn't them send his name and \$2.00 (enclosed to cover cost of mailing him, and we will deliver a pair all charges paid to your address, anywhere in Canada or U.S. The same style & quality. JOHN PALMER CO., Limited, Fredrickton, N. B., Canada. 24

HYLO SILO

Sweet-Fresh Ensilage dews to the best fertilizer

The HYLO SILO is a simple machine. No power or special skills are needed to use. Convenient and perfect in design, adjustable without hammer or wrench. Made of Galvanized Long Leaf Lumber. Price, \$100 in lots of 100. Stands full when empty.

Write for prices of catalogue. JOHN PALMER CO., Limited, Fredrickton, N. B., Canada.

FOR SALE Several carloads of Alberta Fall Hay, first and second cutting, pressed, F.O.B. cars. J. W. RICHARDSON, Gatdenia, Ont.

ASK

our sales office nearest you for prices and terms on special loans adapted to your soil and crops

AA

Send for Canada Booklet-Free

The American Agricultural Chemical Co.

New York, Boston, Buffalo, Detroit

FOR SALE Everything from a 12 apple tree to a strawberry plant, shade, nut, ornamental and evergreen trees, ornamental shrubs and vines, roses, hardy flowering plants, bulbs, apparatus, guaranteed stock at reasonable prices.

Catalogue Free. (Silver Black Boxes) Box J, Stratroy, Ont.

Dowham Bros.,

WORKING DRAWINGS, \$2.00.

Complete working drawings for the construction of Farm and Dairy House No. 4, together with complete bill of materials and instructions for building, will be mailed to any address for \$2.00.

Farm Building Dept., Farm and Dairy, Peterboro, Ont.

AYRSHIRE NEWS

AYRSHIRE COWS AND BEEFERS THAT HAVE QUALIFIED IN RECORD OF PERFORMANCE TEST FROM DEC. 5, 1915, TO FEB. 1, 1916.

Mature Class.
LADY Jane, 4086; 1300 lbs. milk, 505 lbs. fat, 3.78 per cent. fat, 545 days—A. S. Turner, Epsom, Ont.
Princess Alice 2nd, 2410; 1300 lbs. milk, 481 lbs. fat, 3.90 per cent. fat, 365 days—A. Gilliespie Bros, Victoria
Arvilla, 3590; 1219 lbs. milk, 500 lbs. fat, 3.92 per cent. fat, 365 days—MacVicar Bros, Belmont.
Flore, 2094; 1094 lbs. milk, 359 lbs. fat, 4.29 per cent. fat, 365 days—John A. Morrison, Mt. Elgin.
Scotsville White Sprightly, 2530; 1000 lbs. milk, 285 lbs. fat, 3.52 per cent. fat, 365 days—John A. Morrison.
Gem of Spring Brook Farm, 2501; 987 lbs. milk, 301 lbs. fat, 3.22 per cent. fat, 317 days—T. J. Hawkins, Landon, N.E.
Leahleigh Composite 3rd, 2523; 980 lbs. milk, 349 lbs. fat, 3.62 per cent. fat, 359 days—Edward Yea, Dewinton, Alta.
Milkmaid 4th, 1270; 952 lbs. milk, 353 lbs. fat, 3.90 per cent. fat, 365 days—A. Melton & Sons, Charlottetown, P.E.I.
Ruth, 2578; 890 lbs. milk, 309 lbs. fat, 3.63 per cent. fat, 365 days—Woodliffe Bros., Monroville.
Italia Love, 2625; 853 lbs. milk, 359 lbs. fat, 4.19 per cent. fat, 364 days—John A. Morrison.

Four-Year-Old Class.
Queen Mary, 4253; 1131 lbs. milk, 436 lbs. fat, 3.92 per cent. fat, 365 days—Harrison MacKerrow, Oranby.
Scottie's Snowball, 3844; 1050 lbs. milk, 405 lbs. fat, 3.83 per cent. fat, 365 days—John A. Morrison.
Fluorite, 3185; 969 lbs. milk, 350 lbs. fat, 3.94 per cent. fat, 359 days—R. Ste. Marie, Compton, Que.
Nellie of Spring Brook Farm, 3537; 919 lbs. milk, 324 lbs. fat, 4.14 per cent. fat, 353 days—A. Melton & Sons.
Snowball, 4222; 892 lbs. milk, 307 lbs. fat, 3.43 per cent. fat, 353 days—John A. Morrison.

Three-Year-Old Class.
Whitney's Lennie, 4191; 1200 lbs. milk, 440 lbs. fat, 4.13 per cent. fat, 365 days—John A. Morrison.
White White Rose 3rd, 3307; 1040 lbs. milk, 423 lbs. fat, 4.05 per cent. fat, 354 days—A. S. Turner & Son, Ryckman's Corners.
Airmount Bona, 3921; 900 lbs. milk, 363 lbs. fat, 4.03 per cent. fat, 365 days—John McKee, Norwich.
Humbagb Helen, 3706; 870 lbs. milk, 357 lbs. fat, 4.21 per cent. fat, 344 days—A. Alex. Hume & Co., Campbellford.
Scottish Victoria, 3370; 827 lbs. milk, 366

the fat, 3.54 per cent. fat, 337 days—John McKee.
Burnside Adalia 3rd, 4100; 813 lbs. milk, 307 lbs. fat, 3.78 per cent. fat, 333 days—Miss A. VanDorn, St. Andrew, N.B.
White Floss of Cairnbank, 3523; 770 lbs. milk, 343 lbs. fat, 4.50 per cent. fat, 278 days—Joe, Hudson & Son, Lynn.
Beauty, 4029; 764 lbs. milk, 359 lbs. fat, 4.62 per cent. fat, 335 days—Joe, Hudson & Son.
Bencher Princess, 3707; 769 lbs. milk, 339 lbs. fat, 4.17 per cent. fat, 302 days—B. H. Montagu Allan, Monmouth, Que.
Pickney's Maise, 3575; 750 lbs. milk, 284 lbs. fat, 3.83 per cent. fat, 365 days—L. A. MacFarlane, Kenora.
Mollie of Greenmount, 3606; 735 lbs. milk, 279 lbs. fat, 3.81 per cent. fat, 333 days—Gilliespie Bros., Victoria.
Fek, 3256; 726 lbs. milk, 309 lbs. fat, 3.97 per cent. fat, 365 days—Woodliffe Bros.
Nellie of Kelso, 3729; 702 lbs. milk, 293 lbs. fat, 3.97 per cent. fat, 365 days—D. A. MacFarlane.

Two-Year-Old Class.
Lakeside Bonnie Lass, 3720; 1023 lbs. milk, 406 lbs. fat, 3.97 per cent. fat, 365 days—Geo. H. Montgomery, Philipburg, Que.
Milkmaid of Spring Brook Farm, 3572; 880 lbs. milk, 367 lbs. fat, 3.94 per cent. fat, 354 days—T. J. Hawkins.
Lassie's Star, 3738; 867 lbs. milk, 409 lbs. fat, 4.62 per cent. fat, 354 days—J. C. Thompson, Gardin, C.O.
Princess of Orkney 2nd, 4273; 854 lbs. milk, 307 lbs. fat, 3.23 per cent. fat, 365 days—Harrison MacKerrow.
Princess Alice 2nd, 3704; 840 lbs. milk, 313 lbs. fat, 3.83 per cent. fat, 356 days—J. C. Thompson.
Princess Pat, 3729; 820 lbs. milk, 373 lbs. fat, 4.46 per cent. fat, 355 days—Joe Thompson.

Archonoleah Kathleen, 3940; 790 lbs. milk, 350 lbs. fat, 4.33 per cent. fat, 350 days—B. H. Montagu Allan.
Tanglewill Impudence, 4240; 790 lbs. milk, 215 lbs. fat, 4.00 per cent. fat, 365 days—Woodliffe Bros.
Bonnie Sweet Bonnie, 3521; 719 lbs. milk, 342 lbs. fat, 4.66 per cent. fat, 355 days—A. Melton & Sons.
Thamesville Bonnie Jean, 4539; 719 lbs. milk, 359 lbs. fat, 3.67 per cent. fat, 365 days—A. J. Edwards, J.C. Chatham.
Sarah of Trout Hill, 3945; 697 lbs. milk, 303 lbs. fat, 4.22 per cent. fat, 355 days—Thomas Dennis, Jr., Stratfordville.
Douglas Star's Sarah, 4240; 622 lbs. milk, 299 lbs. fat, 4.33 per cent. fat, 365 days—John McKee.
Queen Jessie of Brookside, 4540; 600 lbs. milk, 311 lbs. fat, 4.33 per cent. fat, 355 days—John McKee.
Letty 2nd, 3615; 606 lbs. milk, 294 lbs. fat, 4.83 per cent. fat, 355 days—Thomas Dennis.
Sarah Douglas, 3825; 678 lbs. milk, 322 lbs. fat, 4.78 per cent. fat, 338 days—John McKee.
Bonnie Brae Ruth, 4187; 643 lbs. milk, 275 lbs. fat, 4.39 per cent. fat, 273 days—G. B. Mads, Vanhook, N.B.
 W. F. Stephon, Sec. Treas.



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 47 George Street :: OTTAWA

Do You Know About the Advantages of Internal Breading?

The Dangers of Auto-Intoxication Explained

In these days of super-activity in business and social life, when we all rush and rush and hurry and hurry, our vitality and nervous force is being expended to keep up with the taxing pace. It is a welcome fact that men and women are entering upon an era of common sense in the care and preservation of their physical selves.

Less and less do we depend on nostrums and drugs. On every hand, effort in our own intimate knowledge, witness convincing demonstrations of the usefulness of hoping for real relief from such harmfully stimulating, unnatural means of combating the hundred and one ailments so common to our physicians will tell you, in case you have not yet realized it, that about probably fully 90% of the ill and diseases from which we suffer are due to the clogging of the system by waste and poisonous matter that should rightly be eliminated immediately if we would remain in health and escape even minor blemishes.

And that is why the internal bath is the natural, the logical, the best way to eliminate this waste matter, and by eliminating it remove the source of most of our ills. It does not drag your system; it is not a violent, system-racking thing, but a pleasurable, scientific, efficient adaptation of a curative method that is as old as civilization itself. It corrects the very conditions that give the blood a chance to absorb these poisons. It keeps you clean inside by removing this matter, prevents the blood from having a chance to carry them to the organs and tissues of the body, infecting them and exciting that lowering of bodily efficiency and vigor which makes us miserable and unhappy, even if it does not pave the way for more serious ills and diseases that endanger life itself.

This improved system of Internal Breading is naturally a rather difficult subject to cover in detail in the public press, but there is a physician who has made this his life's study and work, who has written an interesting and most subject called, "The What, the Why, the Way of Internal Breading." This he will send on request, to anyone addressing Charles A. Tyrrell, M.D., Room 291, 257 College St., Toronto.

Like all really worth-while things, the internal bath is as simple as nature's own method, and it is a freedom from the effects of drugs that at best can but temporarily, and then only in a partial way, relieve the system of its waste. It is above all a "water-bath" in the truest sense, and in accord with the laws of health. And it is something beyond even this. It is the only method that cleanses the system at par even when you are not suffering from any disease, and it is the only method that enables your system to do its work fully and efficiently. It is a "water-bath" in the wonderful "tonic" that braces without artificial stimulation or any harmful reaction. It is the only method that cleanses the system from the risk of disease that gets its start from accumulated waste and that the intestinal tract always hygienically clean prevents the blood from absorbing poisons that otherwise would be carried to the body through the circulation. It is never so simple as a bath, something you cannot say for drugs. What the internal bath has done for so many thousands of grateful men and women, we can do for you. We believe you will be interested in reading a more thorough discussion of the subject than is possible or advisable here.—Advt.

BRANT BREEDERS MEET.

THE Brant District Hoteliers' Breeders' Club held their regular meeting in Mr. Beuhler's office, Brantford, on Feb. 24. The number present was 12. It was taken in evidence that the breeders of Holstein cattle in the Brant District purpose being in the front ranks in the transaction of general business, the meeting was held at the Brantford Hotel, where their wives were entertained by the Club to a banquet at the Arriemus dining rooms, Colborne's Hotel. The interesting report was enjoyed by all present. Mr. Macomber, the president, took the chair, and in a few chosen words outlined the work for the year. Mr. Letich, of the O.A.C., was then introduced by Mr. Richardson, and in reply spoke on the value of testing, showing the R.O.M. had been one of the main factors in bringing the Holstein to the top as a dairy cow, and in the future the same method should be necessary to carry on the R.O.P. work. Mr. King, also of the O.A.C., was next introduced by Mr. Richardson, the president of the Brant Club, and spoke at some length on the value of the Holstein breed of cattle, showing how and where they were originated, and when first brought to America. Mr. Richardson, St. George, furnished the musical part of the programme, and gave several patriotic songs in English. The banquet was brought to a close by singing the National Anthem. The members are more determined than ever to make the club a great success.—N. P. Sager, St. George.

TORONTO, Monday, March 16.—In Farm and Dairy, but what we mentioned the large supplies of wheat are still in farmers' hands, and in Western Canada. A recent report from the U. S. Department of Agriculture shows the same to be true of the country. In both wheat and corn the supplies still held on the farms are in excess of supplies held at the same time in previous years. The heavy marketing of grain in Ontario during the last couple of weeks would seem to indicate a similar condition here. While these heavy holdings may detract mentally affect the market prices they, at the same time, tend to give stability to trade generally. There is still much money coming to the farmers for their crops of 1913. It may be the knowledge of this fact which explains the healthy demand for goods at wholesale houses in Canada.

A review of the agricultural market situation shows wheat down, coarse grains firm, hay and straw firm, eggs and poultry steady, and live stock strong.

Large stocks of wheat on both farms and in elevators, together with lack of ocean route, have caused a decline in quotations. Ontario millers seem to have full supplies, and at the present time Ontario wheat is the cheapest in the world market, selling lower than south-western states' wheats. The following quotations are as follows: No. 1 Northern (over 100 lbs.) \$1.11; No. 2, \$1.08; No. 3, \$1.06; No. 4, \$1.04; No. 5, \$1.02; No. 6, \$1.00; No. 7, \$0.98; No. 8, \$0.96; No. 9, \$0.94; No. 10, \$0.92; No. 11, \$0.90; No. 12, \$0.88; No. 13, \$0.86; No. 14, \$0.84; No. 15, \$0.82; No. 16, \$0.80; No. 17, \$0.78; No. 18, \$0.76; No. 19, \$0.74; No. 20, \$0.72; No. 21, \$0.70; No. 22, \$0.68; No. 23, \$0.66; No. 24, \$0.64; No. 25, \$0.62; No. 26, \$0.60; No. 27, \$0.58; No. 28, \$0.56; No. 29, \$0.54; No. 30, \$0.52; No. 31, \$0.50; No. 32, \$0.48; No. 33, \$0.46; No. 34, \$0.44; No. 35, \$0.42; No. 36, \$0.40; No. 37, \$0.38; No. 38, \$0.36; No. 39, \$0.34; No. 40, \$0.32; No. 41, \$0.30; No. 42, \$0.28; No. 43, \$0.26; No. 44, \$0.24; No. 45, \$0.22; No. 46, \$0.20; No. 47, \$0.18; No. 48, \$0.16; No. 49, \$0.14; No. 50, \$0.12; No. 51, \$0.10; No. 52, \$0.08; No. 53, \$0.06; No. 54, \$0.04; No. 55, \$0.02; No. 56, \$0.00; No. 57, \$0.00; No. 58, \$0.00; No. 59, \$0.00; 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HINMAN CO. WINS BIG PATENT SUIT

GIVEN JUDGMENT WITH COSTS

Hinman Milking Machine Company of Oneida Awarded Damages in the District Court Against the Visible Milker Company for Infringement—Waterproof Concern Restrained—Judge Ray's Decision.

The following is from the Oneida, N. Y., Dispatch:

Judge George W. Ray of the United States District Court just handed down a decision in the action brought by the Hinman Milking Machine Company, of Oneida, against the Visible Milker Company, of Watertown, for the infringement of patents in which the court directs an injunction and judgment against the Watertown concern with full costs and an accounting to fix damages.

The decision is a notable victory for the Hinman Milking Machine Company, whose machines, which have gained a world-wide reputation, have recently been imitated and infringed in various parts of the country because of their sound basic principles and wonderful success.

The action was brought by the Hinman Milking Machine Company to restrain the Watertown company from committing further infringement on the complainant's (Hinman's) patent and for damages for the infringement already committed. This case was tried in United States District Court at Syracuse, Aug. 31st and Sept. 1st and 2nd, 1915. Attorney Ralph H. Woolver of this city appeared for the Hinman Milking Machine Company with Attorneys H. P. Denbison and E. A. Thompson as counsel. The Visible Milker company was represented by Attorneys John Conboy, of Watertown, and Fred Gerlach, of Chicago.

What the Decision Means.

This decision gives the Hinman Milking Machine Company a practical monopoly on the manufacture and sale of the valve-type milking machine industry, and it was in anticipation of a favorable decision that the company recently enlarged its plant on Elizabeth street to about double its former capacity. Their product is sold in every state in the Union, in Canada, Mexico, South America, and a number of European countries, and orders from new territory are received almost every day.

H. F. BAILEY & SON

GALT, ONT.

Sole Manufacturers for Canada Under HINMAN Patents.

Cure Your Cows of Caked Udders

WITH EGYPTIAN LINIMENT

3 APPLICATIONS GUARANTEED

For Sale Everywhere.

Douglas & Co., Mfs. Wholesale Ontario

Since our last report 40 cows and half are here qualified for admittance to the Record of Performance on the strength of their yearly records made under the supervision of the Dominion Live Stock Branch. Some excellent records are included in this list, two cows exceeding 200 lbs. of milk this year. Rosebud Maid leads the mature class with 956 lbs. butter from 1073 lbs. milk, while Pauline Colantia Tennessee, 4th year, with 880 lbs. butter from 1073 lbs. milk. Fairmont's Yearne was the leader from the 2000 lbs. milk, is a good third in the four-year-old class, Alberta claims the honors with Delvina's Princess. Her record is 765.75 lbs. butter from 1900 lbs. milk. The two-year-old record was held by the, viz., Sylvia, of K.J. Waldo, with 15,201 lbs. milk, and 815 lbs. butter, and Cleverly with 15,138 lbs. milk, and 676.25 lbs. butter. Nine two-year-olds exceed 500 lbs. butter, a very fine showing. Totilla, 4th year, comes first with 700 lbs. butter from 17,383 lbs. milk.

W. A. Olemons, Sec.

E. B. MALLORY'S OFFERING.

We are as usual trying to make our cowing a little better. It consists of 1916, one of the best, a cow of six-year-old daughter of Rosa Omega, second year, with 10,720 lbs. milk at 11 years. Rosa Omega was a sister of the cow of May Echo on the same side, and she herself was half sister of May Echo on the sire's side, making a very close relation to the great cow. The young cow entered for the sale in our sale of Pontiac Hermae, due to her being a Pontiac Hermae, due to her great shape to make a record for her self. We record, considering the sister of Lulu Keyes and her bull calf, both extra. Finally there are two daughters of Pontiac Hermae, out of two of our best bulls. One is a sister of and has anything about this fine old bull and his progeny, as his daughters are doing the best few weeks of her calf and are raising. He is now sire of the Champion four-year-old Canadian in R.O.T. test, with many more showing signs and reputation of great excellence.—E. B. Mallory, Belleville, Ont.

A CHAMPION BULL.

THE young sire offered in this issue of Farm and Dairy is a son of Canada's now Champion long-distance producer, Totilla of Riverside (1235) 21,129 lbs. milk and 1,065.5 lbs. butter—best day. Totilla made this record under ordinary conditions. She had no roots for the first four weeks of her calf and went out on pasture most of the summer. Her calf, the prince of sons of our American Champions, an electric fan and a walk in the evening, and she would be a good candidate for a 30,000 lb. record, considering her age, five years. She will be heard from later. Her last calf (above mentioned), is sired by a son of "May Echo, who had this side of Canadian Champion for a number of years. Totilla is the only cow in Canada to displace her in both milk and butter qualifying in R.O.T.

He is a three-quarter brother to "May Echo Sylvia," 131 lbs. milk in one day, four-year-old in seven days (Canadian record), and a full brother to the \$1,300 bull sold at public auction last week.

SOME AYRSHIRE RECORDS.

I HAVE been looking up the breeding of the Ayrshire breed, and the world's champion, Garclaugh May Mischief, Imp., and her notable daughter MacVicar Heroe, of Belmont, Ont., are very gratifying information that the dam of the great 25,000-lb. Ayrshire, the late Mrs. Fortane, their bull, Garclaugh Prince Fortane, this year will be 10 years old next month, but is still in active service and has sired a splendid lot of stock for MacVicar Heroe.

Canadian Ayrshire breeders will be pleased to learn that the three-year-old record in the R.O.T. has been broken by the heifer Scotch Tattie, bred by John A. McEwen, Mt. Eggle, Ont., and sold at the Southern Ontario Ayrshire Breeders' Club sale at Ingersoll in December. This heifer was sold to A. S. Turner and Son, Ryekman's Corners. She is due to freshen well inside of the time limit, and has made a record of 287 lbs. milk and 63 lbs. butter fat, with an average test of 4.22.

Another heifer, Lenore 2nd, consigned to the same sale by Mr. J. L. Stansell, of Yorkville, Ont., just completed her record in the two-year-old class, with a total of 12,125 lbs. milk and 523 lbs. lbs. of butter fat, average test 3.41. This is the highest butter fat record yet made by an Ayrshire. Her sire is the heifer Briery 2nd by 3.48 lbs. Such records speak volumes for the quality of stock offered by this club in its annual sales.—John McKee, Norwich, Ont.

A lump of starch in the bottom of the salt seller will absorb the moisture without diluting the salt.

HIGH-LAWN HOLSTEINS Champion of Canada

Totilla of Riverside, (1235) the new long-distance champion of Canada has a beautiful son born Feb. 15, 1916. His two nearest dams are both Canadian Champions and 100 lb. cows. This young sire has four generations of 100 lb. cows with his pedigree, and the yearly average for his two nearest dams are higher than any other bull in Canada. Better write us about this follow. He is for sale.

We have another beautiful individual out of a cow that is milking 22,000 lbs. in the year. Write at once or come and see them.

Jos. O'Reilly, High-Lawn Farm, R. R. 9, Peterboro, Ont.

"They Look Good to Us!"

Did you ever notice what the daughters of Pontiac Hermae are doing? We have 15 of them that we must breed to something else. We might consider an offer for this grand old bull, he is so hale and hearty as ever at 10 years of age. Write to us at once.

E. B. MALLORY, Bay Side Stock Farm, BELLEVILLE, ONT.

VILLA VIEW HIGH-TESTING HOLSTEINS

Now is the time to buy a show bred by King Segis Alberta Calamity, the \$2,000 25-lb. bull, sired by the \$50,000 bull. Only three youngsters, three months old, prices that should move them quickly. Do you know that the 1915 Guelph Champion and two of her sisters are at our farm to be wanted him. The yearling bull advertised last week is gone; several breeders would like to buy an Alberta calf for they are fit, this minute to lead into any show ring in Canada.

ARBOGAST BROS. SEBRINGVILLE ONTARIO.

BURNSIDE HENGERVELD KORNDYKE SON OF A 27.60 LB. COW FOR SALE

Sir King Hengerfeld Korndyke, a grandson of Pontiac Korndyke. His grandmother made 23 lbs. butter seven days. Dam Sir Johanna's Burnside, milk in one year 2972 lbs., one day 110.8 lbs., 7 days 37.00 lbs. is sired by Sir Johanna Beside, who is a brother of Johanna De Kol Van Boere, 47.75 lbs. butter 7 days, one day 19.15, is half black and white and right every way, of the heavy, low-down type. One bull calf sired by above bull, whose dam is a granddaughter of Sir He is mostly white; calved Dec. 5, 1915; square and straight.

One bull calf (sire King Hengerfeld Korndyke) born in heavy milking cow. He is mostly white; calved Sept. 12, 1915; also square and straight.

JOHN B. WYLIE Apply in ALMONTE, ONT.

THE ALLISON STOCK FARM



Sale of Record Holsteins

APRIL 5

To My Holstein Fellow Breeders,— We want the breeders in Canada to know that this is not a dispersion sale. But it includes much of the best in our stable. We are weaning into a complete herd of the daughters of Sir Lyons Segis (a son of King Segis), of which we have now 40 of more. To stable his growing herd it is necessary to get rid of a few much of the older stock, including the dams never offered or put a price on any of our daughters of Sir Lyons Segis. This is, therefore, the great opportunity for us to cure some in the purchase of some of the many cows we wish to sell. The breeder who does not take a calf to him, identically the same, is placing in his herd identically the same blood as we are using for our foundation and which will increase its value from year to year.

W. P. ALLISON.

THERE WILL BE 59 HEAD IN OUR GREAT OFFERING

Twenty of the thirty-three females offered will have official R.O.M. records, ranging from 17 lbs. to 29.75 lbs. butter in seven days.

Thirteen of the thirty-three females offered will have R.O.M. records of 30 lbs. butter or over in seven days, averaging 22.32 lbs.

All the mature cattle have tuberculin tested, making it an offering absolutely healthy. Come to this sale if you need Blood to put your herd to the top. There will be no reserve after an animal enters the ring.

ALLISON STOCK FARM

CHESTERTVILLE, ONTARIO.

THE A. E. PHILLIPS CONSIGNMENT.
WB are offering four head at the Belleville Sale. Two of them are tested cows, eight years old. Echo DeKol May has a record of 486.0 pounds milk and 21.4 pounds butter in 7 days. She is a granddaughter of Count Echo. We are offering a bull calf from this cow, a grandson of Pontiac Hermes on his sire's side. He will be 2 months and 29 days old at time of sale. Lady Isabella has a record of 554.5 pounds milk and 17.86 pounds butter in 7 days. She is a fine type of a cow, and a show animal as well as a producer. We are offering a yearling heifer from granddaughter of Pontiac Hermes.—A. E. Phillips, Bloomers, Ont.

OFFERING OF S. J. FOSTER.
S. J. FOSTER, of Bloomfield, who in the past has consigned such grand animals as "Breeze and better than ever" at the Belleville sale this year, May Darkness Echo is a grand-daughter of the great May Echo. She has a two-days, and in 11 months scarcely being dry, she came on and increased her record to 43 lbs. milk, and 22.1 lbs. butter. The sire of this heifer is a brother of Lulu Krysa, and her dam is a good show cow. Mr. Foster is also offering a daughter of this heifer, rising three years old, bred to the champion sire Inka Sylvia Beets Posch, having the largest number of daughters milking over 100 lbs. a day in official test.
 The offering includes two daughters and a grand-daughter of famous Bloomfield DeKol, a 30.3 lbs. cow. One of these daughters, Bertina Inka DeKol, has a record of 52.9 lbs., and she has a daughter that gave over 18,000 lbs. milk and nearly 500 lbs. butter, averaging over four per cent. fat in R. O. K. test. The other daughter, Bloomfield Helena DeKol, has a record of nearly 17 lbs. as a two-year old. The last of the females is a grand-daughter of Dolly Echo De-

Kol, record 25.77 lbs., a sister to May Echo. The consignment also contains two exceptionally well bred young steers, Paul DeKol Burke and Sylvia DeKol Posch.

THIS MAY ECHO BULL FOR \$1,300.
THIS MAY Echo bull "the Echo" sending the consignment from Low Banks Farm, Kilmore, Ont., brought \$1,300 in the big sale of pure-bred Holsteins held by Messrs. McVey and Dalesteh, at Shady Brook Farm, Metcalfe, Ont., on Thursday last. He was purchased by splendid head of Holsteins he will head for the next few years.

Forty-nine animals were under the hammer, 34 of them owned by Mr. McVey and 15 by Mr. Dalesteh. The total average realized for the herd was \$1,205.69, the average price, therefore, being \$12.63 per head. For the 19 main the average price paid was \$11.25, and for the 20 price paid for a female was \$12.31, which sum was realized for two of Mr. Dalesteh's cows, Pearl Pieterse, Clothilde Burke 2nd, and also for Johanna Hungerford Jewel. The top price realized by Mr. McVey was \$185 for the mature cow, Segis Cora Burke. Her daughter, Cora Burke Jewel, a senior yearling, sold at \$150.

Mr. McVey's 24 head sold for a total of \$1,390, an average per head of \$117.50. The males, five in number, realized an average of \$125.50. The females aggregated the sum of \$3,607.50, an average for the 29 head of \$124.40. The sixteen cows in milk averaged \$177.31; the four two year old heifers, \$138.75; the six yearling heifer calves, \$80.43; and one heifer calf of this year, sold for \$40.

Mr. Dalesteh, as a result of the day's sale of his best stock, pocketed \$346, an average of \$116.33. His five males brought him an average of \$356. His females aggregating \$1,515, averaged \$161.50 for the ten head. The seven mature cows in this consignment averaged their owner \$157.50; the two two-year-old heifers averaged \$154.25; and one yearling heifer brought an even hundred.—Ottawa Valley Journal.

LYNDALE HOLSTEINS
 Bulls from 9 mos to 13 mos. old; some sired by "King Irma," others by "King Pontiac Artis Canada"; all from R. M. dams. Also a grandson of Prince Hengerveld Pietje, from a grand-daughter of "King of the Four Blacks."
BROWN BROS., LYN, ONT.

BRAESIDE STOCK FARM Offers for immediate sale a number of Granddaughters of the great King Segis, to broken in two Canadian Champions. Dam has 26.41 lbs. record. Price easy if sold at once.
 M.C.R. Railroad, Waterford. T.H. & B. Railroad, Scotland. Long distance phone, 413, Waterford.
CHAS. HAVILAND & SON, Wisnerville, Ont.

Cedar Dale Holsteins
 6 Bulls from 8 months to 14 months old at a bargain, sired by Prince Segis Walker Kornofsky, whose dam gave 83 lbs. milk as a three-year-old, and is a daughter of Pontiac Kornofsky. His full sister made 54 lbs. butter with first calf and are out of H.O.P. cows. Satisfaction guaranteed or money refunded. For prices and photos, write or phone.
A. J. TAMBLYN, Orono, Ont.

FAIRMONT HOLSTEIN HERD
 Is headed by King Segis Alcartra Calamity, the \$2,000.00 son of the \$50,000.00 Bull. Young bulls for sale ready for service from high record dams at value. Others a little younger sired by King, with two nearest dams averaging over 30 lbs. in 7 days. If you want to raise the standard of your herd, write—
PETER B. ARBOGAST, R. R. No. 2, MITCHELL, Ont., SEBRINGVILLE Stn.

WHEN YOU BUY **Belleville Holsteins** **Every animal will be as represented**

That's the Standard we set for our first Holstein Sale 6 years ago

It's the standard we live by to-day—the square deal and honest selling.  Every customer for a friend—and a better buyer for the coming years

THAT'S THE STANDARD OF OUR GREAT

SIXTH ANNUAL SALE AT BELLEVILLE, Thursday, March 30 80 of our choicest will be offered

Our Sale this year will offer the greatest buying ever placed before men who know good dairy cattle. We have included this season a great deal of young stock bred right close to the Champions that have made Holsteins—particularly Belleville Holsteins—famous across America. Much of this young material is still untested. That's where you will profit. You have a chance to buy the richest blood in Holsteins—blood that under test will YOU and YOUR HERD in the front ranks. Think of being able to bid on grandsons and granddaughters of such animals as May Echo, Lulu Feyza, Victoria Burke, Rauwerd Count DeKol Lady Pauline, Daisy Pauline Pieterse, Inka Sylvia Beets Posch, Piusa Burke, Count Segis Walker Pieterse, Pontiac Hermes and King Segis Alcartra Spofford—all in the Belleville District.

THEN CAN YOU AFFORD TO MISS MARCH 30? Most certainly not. If you are prepared to start a new herd with RIGHT BLOOD and put BETTER BLOOD behind your present herd. Wait for this sale. Get your herd sire here—or any females you need. A breeder who bought over \$1,200 of stock at a previous sale, says it was the best buying he ever made. And he will be back again this year.



KEEP THIS IN MIND, TOO—when you buy in Belleville you are buying where hundreds testify to the square deal in auction selling. There won't be a single owner here a say on this stock after it enters the ring. That's the Belleville way.

THE BELLEVILLE SALE THIS YEAR WILL CONTAIN MORE OF THE BLOOD OF CHAMPIONS THAN ANY OTHER SALE EVER HELD HERE IN CANADA. Know more about our offerings by sending a card to the Secretary for a Catalogue. Plan now to meet your other breeders at the ringside, March 30.

BEN. H. LEAVENS President **BLOOMFIELD**

F. R. MALLORY, Secretary
 A postal to him will bring a catalogue by return mail
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IT WOULD NOT MATTER how much money there was back of the Reo guarantee if there were not also Reo Integrity and Reo Good Intent.

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