

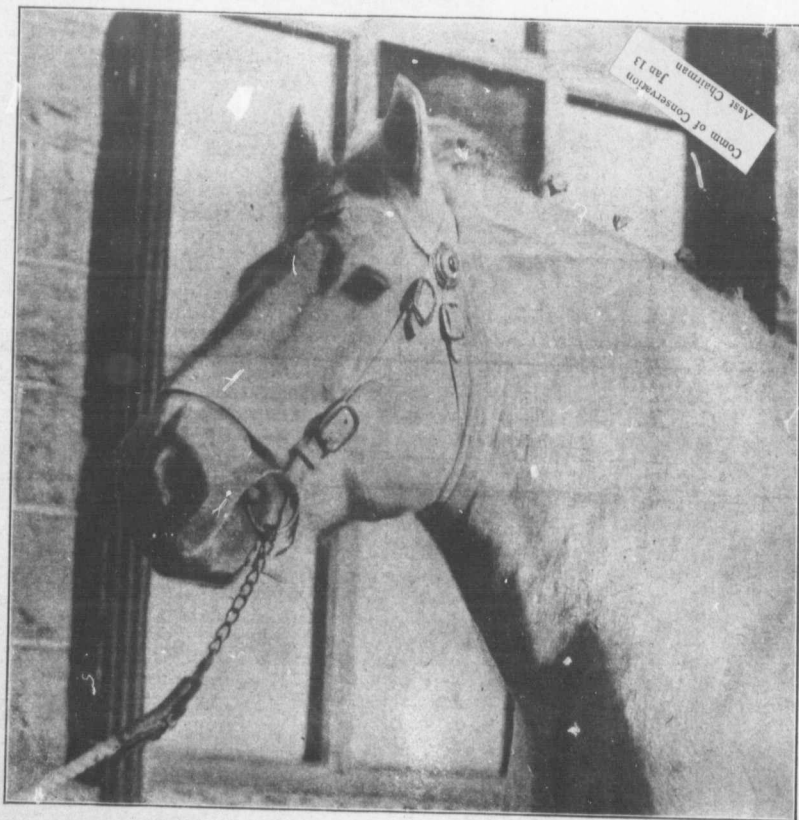
FARM AND DAIRY & RURAL HOME



DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE



Toronto, Ont. March 22, 1917



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You need an engine—get a Gilson on our new easy payment plan, and it will pay for itself. You have the world pay for itself. You bring the work for it to do this fall and winter. It is so easy to use and high priced—saves yourself a lot of worry and enjoy that "feeling of security," which is such a definite part of the staunch, reliable Gilson Engine.

Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Besides of everything you have been buying have been soaring, but by careful management we are able to furnish Gilson Engines at remarkable low prices. Write us to-day for catalogue, price, and easy payment plan, stating what size you are interested in.

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Save Half the time, labor and power in disk harrowing

Use a double-action harrow—disk twice at one going over. Save gasoline and keep from compacting the soil by a second working. But be sure the harrow has our rigid main frame that forces the rear disks to cut midway of the fore disks—the only harrow where rear disks cut as deep and do as much work as the fore disks, leaving the land level. Use a



Cutaway Engine Harrow

The forward share disks cut deep without burrowing up the soil. The rear disks are double-acting and have a reversible hitch, and in double use are used in all tractors with a reversible hitch for use in straight lines. In reverse use the rear disks cut as deep as the fore disks. Write us for our literature. We will mail you our literature free. "The Fall and the Spring" power this year.

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THE LIGHT-RUNNING GILSON FEED AND ENSILAGE CUTTER

The simplest, scientific, carefully worked out construction of the Light Running "Quick Slice Filer" makes it absolutely impossible to clog throat of blower, no matter how fast the corn is thrown in. The Gilson is rightly called

THE KING OF FEED CUTTERS

because of its remarkable elevating power, absolute safety, durability, strength and compact simplicity—it stands supreme. It has convenient and quick knife adjustment; solid steel-bound cutting wheel, patented safety device—and is guaranteed to cut and elevate MORE ensilage with the same power than ANY other ensilage cutter IN THE WORLD. Write us to-day for catalogue and proof. Manufactured and guaranteed by

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DEAL WITH Farm & Dairy's Advertisers

Postponement Causes Gratification

EDITOR, Farm and Dairy.—I see that you, along with other farm papers, seem to be bewailing the fact that the Dairy Standards Act has received a holist by the Legislature, but dairymen in this section of the country are very well pleased indeed. I frankly confess that it is a hard matter to put up a good argument against paying for milk by test, or pasteurizing whey, but there are plenty of theories which seem highly commendable as theories, but that do not work out as well in practice.

I think that the reason the Act was not opposed more in the start was that the Holstein men, whom it was supposed to hit, were afraid to oppose it through fear of adverse criticism that it might bring out for that part of the breed of cattle. The cheese industry and the export of this commodity has grown to be a big factor in Canadian trade and we Holstein men, from our observations, have come to believe that no breed of cattle in Canada today has done more to build up the cheese industry than the Holsteins. Furthermore, from my own observations as Secretary-Treasurer of the factory, I find that according to tests that we have made, that dairymen that have the larger herds of cattle, all having both high and low testing cows and among the men having in the test cows upward the variation from the test was very slight. My chief objection to the test was that it entailed a lot of work and cost a lot of money and as the factory would receive no more money for the finished product, after the extra expense were taken out we were going to have a lot less money to divide among patrons than before. As for pasteurizing the whey, while sweeter whey is certainly desirable, unless the whey tank and all the farmstead's receptacles for dairy were dumped and scalded out daily, the object sought for is not accomplished, and having given it a fair test, in our own factory several years ago, we conducted the practice as not worth the cost entailed in the operation. Beside, a lot of people have the idea that there is under name of pasteurizing, an inflated ordinary conditions, the margin is very small that many people would not keep cows at all except to keep up the fertility of their farms.—J. Edwin Baxter, Prince Edward Co., Ont.

- 11—Testing two varieties of Sugar Beets for feeding purposes. 2
- 12—Testing three varieties of Swedish Turnips. 3
- 13—Testing two varieties of Turnips. 3
- 14—Testing two varieties of Carrots. 2
- Forage, Fodder, Silage and Hay Crops.
- 15—Testing the planting of Corn at six distances in the row. 6
- 16—Testing three varieties of Millet. 3
- 17—Testing two varieties of Sorghum. 2
- 18—Testing Grass Pasture and two varieties of Vetches. 3
- 19—Testing Rape, Kale and Field Cabbage. 8
- 20—Testing three varieties of Clover. 3
- 21—Testing two varieties of Alfalfa. 2
- 22—Testing four varieties of Grasses. 4

- #### Culinary Crops.
- 23—Testing three varieties of Field Beans. 3
 - 24—Testing two varieties of Sweet Corn. 2
- #### Fertilizer Experiments.
- 25—Testing Dairy on Potato plots fertilized in 1916. 6
 - 27—Testing Fertilizers with Rape. 5
- #### Miscellaneous Experiments.
- 29—Testing three grain mixtures for grain production. 3
 - 30—Testing three grain mixtures for food. 3
- Any person in Ontario may choose any ONE of the experiments for 1917 and furnish the material in the order of which the supply lasts. Each application should make a second choice, as the material for the experiment is re-exhausted before the first choice is exhausted. All material will be furnished free of charge to each applicant, and the producer will, of course, become the property of the person who conducts the experiment. Each person applying should give his name and address very carefully, and should give the name of the county in which he lives.—C. A. Zavitz, Director, Ontario Agricultural College, Guelph, Ont.

Dairy Butter Defined

WHAT does the law define as dairy butter? What are the regulations regarding its sale? Federal legislation provides—that butter sold as "dairy butter" must be manufactured in a dairy where fifty cows milk or cream of at least fifty cows milk is manufactured. It also provides that "no person shall cut or pack dairy butter into blocks, squares, or prints and wrap such blocks, squares or prints in parchment paper, unless the said parchment paper is printed or branded with the words 'dairy butter.'" It also provides that no person shall sell or have in his possession for sale, dairy butter packed in boxes or similar to those used for packing creamery butter, unless such packages are branded "dairy butter."

- #### List of Experiments for 1917.
- | Number. | Grain Crops. | Plots. |
|---------|--|--------|
| 1 | Testing two varieties of Oats | 2 |
| 2a | Testing O.A.C. No. 21 Barley and Emmer | 2 |
| 2b | Testing two varieties of Two-rowed Barley | 2 |
| 3 | Testing two varieties of Hulless Barley | 2 |
| 4 | Testing two varieties of Spring Wheat | 2 |
| 5 | Testing two varieties of Buckwheat | 2 |
| 6 | Testing three varieties of Field Peas | 3 |
| 7 | Testing two varieties of Spring Rye | 2 |
| 8 | Testing three varieties of Soy, Soja or Japanese Beans | 3 |
| 9 | Testing seven varieties of Hunking Corn | 7 |
| | Root Crops. | |
| 10 | Testing three varieties of Mangels | 3 |

CHOICE DAIRY BUTTER

Made by
Mrs. John Doe,
Rose Bank Farm, Doveville,
Ontario.

CREAM DAIRY BUTTER

Made from Separator Cream
By
Mrs. John Doe,
Rose Bank Farm, Doveville,
Ontario.

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FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas

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

VOL. XXXVI

TORONTO, ONT., MARCH 22, 1917

No. 12

Preparedness for Spring Work Is the Farm Programme Complete for the Season of 1917?—By Agricola

MUCH of the success attained in farming must be attributed to good generalship. No battle that is considered decisive can be won without preparedness. Within the month previous to seeding, the farmer's campaign for the busy season should be thought out. To know what crops he will grow, what fields will be devoted to them, that the necessary implements are in good repair and the proper help available, will add immeasurably in keeping up with the work throughout the summer.

When there is a little slack time, it may be profitably utilized in seeing that all tools are in first-class working order. Are the harrows sharp, the cultivator points ready to bite, and the roller, the drill and other machinery ready for instant service? Perhaps the hay cutting and the wheat harvest seem a long way in the distance, but you are going to be busy then. Why not now take the opportunity to overhaul the mower, the binder and that side-delivery rake that you took so much trouble to store away? See that all broken and worn parts are renewed, nuts tightened, and bearings oiled—ready to start at the word go. Then, perhaps, the harness has been neglected. If repairs are advisable do not delay in having them done. Have the leather well oiled and the collars cleaned.

Machinery to Replace Men.

In these days when farm help is scarce and high priced it is good business to consider the class of machinery you purchase. Are your implements of the old-fashioned, narrow type, regular time consumers? Would it not be practicable to trade them to a dealer for wider and more convenient ones? When you are being pushed in a few weeks to get that heavy clay into crop before a three days' rain stops operations for a week, you will be impressed by the difference. It will spell dollars to you then.

It took a few days, lately, to get rid of several cross fences, making our fields average eighty rods in length, instead of forty. Walking up and down these short fields, between the tails of a plow for a dozen years, gave me plenty of time to do a little thinking. One of my thoughts had to do with an arithmetical calculation that would tell me the amount of time I was simply wasting in turning around a thousand and one times in the various operations of plowing, tilling and harvesting. I am satisfied that if the grand total were multiplied by a day's wages such as farmers are likely to pay this season it would represent a sum sufficiently large to make a substantial payment on a six-cylinder automobile. Here was time that could be utilized for other work on the farm, and to more profit. This I consider an important move in farm economics.

Harden the Teams.

As but few farmers are fortunate enough to

profitably employ the gas tractor to furnish the necessary power in the fields, the important question of getting the teams hardened and ready for the strenuous days of seeding should be given careful attention. Most farmers don't have to be told how to do this; just a hint by way of emphasis ought to suffice. If, however, the work is to be accomplished with a satisfactory degree of despatch there will be no economy in a short-



\$192.55 Per Cow

THAT the progressive, up-to-date dairyman can make a marked success of his business, even in a season when weather and crop conditions were perhaps the most unfavorable on record, has been amply proven by the results obtained in 1916 by Mr. Morden Gilbert from his fine Holstein herd at Hillview Farm, Sophiasburg Township. About a year ago the Gazette gave the record of Mr. Gilbert's herd for 1915, and the record was an excellent one, but during 1916 Mr. Gilbert has not only made far more money per cow owing to the increased price for cheese, but in the face of one of the most unfavorable dairy seasons for many years he was able to show a splendid increase in yield of milk per cow. In 1915 his average milk per cow from a herd of ten cows was 10,141 lbs., while the highest yield from any individual cow was 12,125 lbs. In 1916 the average per cow from a herd of nine was 12,228 lbs., each. The highest individual yield in 1916 was 14,253, an increase of 2,128 in highest individual record. A three-year-old that freshened May 1st was the only one cow in the herd that gave less than 10,000 lbs. in 1916. This is a record of which Mr. Gilbert has good reason to be proud, for it certainly means that the most careful attention has been given, not only to breeding up his herd, but that the best of care was given them, and food of the right sort, provided in abundance. This was not an easy matter in 1916, owing to the long continued dry weather. The financial return from Mr. Gilbert's herd for 1916 was most gratifying. The total money value of the dairy products of this herd was \$1,732.86, an average of \$192.55 per cow. If the value of the milk used on the farm was included in this estimate, it would easily bring the average per cow to well over \$200.—A. P. McVay, Prince Edward Co., Ont.

age of horses. Generally speaking, the horse market of late has been at a pretty low ebb, especially if one has an animal to sell—one that is not very good or not very bad. But go out and try to buy a really good one, and you will have your eyes opened wide. The ordinary market does not seem to have much effect there. On several occasions recently, I have seen draft teams of the desirable type pass hands at an average price of \$400. The best farmers are almost proverbial in respect to their admiration for a good horse. Some will even go so far as to slow up the work all around, rather than be bothered with an inferior animal; and there are not many who feel they can afford a long price for one that will only be regarded as an extra.

Pavement-sore, but Satisfactory.

One of my neighbors finding himself in that predicament last spring, found a solution that proved entirely satisfactory. Providing himself with the services of a reliable veterinary, he went on a little prospecting trip to the city. Operators of breweries, coal yards, etc., have many fine specimens of draft horses which they use for draw purposes. The trouble, from the city viewpoint, is that the hauling of heavy loads over the paved streets soon produces a footsoreness that precludes them from further service of this kind. Right here is where the farmer's opportunity comes in. My friend saw the point, and with expert assistance was able to select a team, otherwise sound and young in years for \$200. Work on the land soon restored the condition of their feet to normal. Three months after making the purchase he was offered \$350 for the pair.

Another chore, which, if neglected, will take up a great deal of valuable time, and can be done equally well when the frost is in the ground, is cleaning the seed grain. Seed oats or barley, if well selected, need not be changed every few years, notwithstanding a popular belief to the contrary, as large plump seed will continue to give good yields for many years. If one has the time three different cleanings are not too many in order to secure the "cream" of the grain for seed. The resultant harvest will prove it to be time well spent.

Universal Fertility Service

How about starting universal fertility service? All boys on the farm, and all men, too, are eligible to join. The requirements are that we do our share toward maintaining the fertility of the soil and promote agricultural preparedness by using the best methods of handling our soils and crops. Our experimental farms and agricultural colleges will furnish soil fertility ammunition in booklets and pamphlets. Bigger production is needed and to secure it better methods of farming are urgent.

The Care of the Colt From Birth to Weaning

THE early troubles of the foal are apt to be navel ill, constipation and scours. Navel ill seems to be caused by germs that get into the body through the navel cord at birth. To guard against it have the colt cored in a clean stall or in a pasture. Then the navel cord should be cut off about two inches from the body if it has not already been broken that close or closer, a string dipped in a mild disinfectant tied

Afterwards it got so dry and hard that the corn could hardly come up. In some fields the crust could hardly be broken by the cultivator. But the chief reason for the 1916 failure, I believe, was in the seed corn. The season of 1915 was wet and late, so that the corn did not ripen properly, and was hard to get well cared. Consequently, good seed corn was scarce last spring, and much was planted that was not fit to plant at all. One of my neighbors planted 20 kernels in a flower pot and only 12 of them grew. This was of the seed which most of the farmers around here used. I



An Average Farm Flock. *Probably Healthy and Hearty, but How About Profits? A flock of the size illustrated should net their owner, over and above cost of feed, \$60 or \$70 a year. Receiving a minimum of attention, as is too often the case, farm poultry is as likely to be a liability as an asset.

about the end of the cord and the cord painted over with a mixture composed of one part of the tincture of iodine and three parts of glycerine once a day till it dries off. The udder should be rinsed off with a weak disinfectant, too, before the colt is allowed to suck.

The first milk or colostrum is laxative and usually cleans the digestive tract within six to eight hours. If the bowels do not move a laxative of two ounces of castor oil can be given and a couple of ounces of warm water with a little glycerine injected into the rectum. It is hard to determine what causes scours or diarrhoea in each individual case, but the common causes are changes in the composition of the mare's milk due to nervousness, overwork or changes in feed, allowing the colt to gorge itself from the full udder of a mare that has become quite warm from overwork and from filth in the food.

When the colt is four weeks old it will begin to eat a little grain, whole oats are the best. The colt should have a chance to nurse every two or three hours until it is about three months old. This is also for the good of the mare, as her udder will fill up in about three hours, and if the colt does not nurse or the mare milked there is danger that the udder will become damaged and the milk flow so lessened that there will not be enough for the colt. If cow's milk must be fed dilute it with about one-third water and two level tablespoonfuls of sugar to each quart. Ordinarily a colt should nurse until it is six months old, when it can be weaned without any setback. Grain should be fed, as without it a good growth will not result. The valuable imported horses that have been so much in demand in this country are fed grain from the time they are old enough to eat till mature.

A 1916 Corn Experience Value of Good Seed Demonstrated E. B. M., Waterloo Co., Ont.

THE season of 1916 was a poor one for corn growing, and for several reasons. First, we had a wet and backward spring, so that the seed could not be planted at the right time.

quite a bit neglected. Once we didn't do anything on it for three weeks at a time. But in spite of this we got our 12 x 35 foot silo half full from 6 1/2 acres of corn, whereas my neighbors got from five to ten feet in the silo, and a few didn't cut theirs at all.

My corn came up one week after planting, in as full, even and regular rows as could be wished for, with scarcely any falling except where it was too wet; that is, except for 12 rows on one side of the field. My seed ran short, so I had to sow what I could get. I got half a bushel of the kind tested by my neighbor. It was a little musty and not very dry. This was the same variety as I had gotten from Essex, but the seed was much smaller. Hence it was sown thicker. Some of this came up a few days later than the rest, some a few weeks later, but most of it didn't come up at all. Thus it grew throughout the season, very irregular and patchy. This was about typical of the neighbor's corn. In harvesting, this strip gave about half as many loads as the rest of the field.

I would advise every corn grower this spring, who has not yet bought his seed corn, to get the best he can. Or, if you have bought shelled corn already, test it before planting, and if it shows a low germination, plant thicker, or get better seed.

Sweet Clover in Ontario

A Resume of Experimental Work
PROF. C. A. ZAVITZ, O.A.C., Guelph.

THE growth of common white sweet clover is rather slow at first, and is not very large during the first year. In the second year, however, the growth is rapid and abundant, the stems become woody, the leaves easily drop from the plants on drying, and the seed matures unevenly and readily shatters on ripening, but generally yields well per acre. The plants of the sweet clover die after they produce seed at the end of from 15 to 18 months from the time the seed is sown.

Sweet clover thrives on a variety of soil, but seems to require an abundance of lime. It grows readily on roadsides and waste places, where the seeds reach the ground annually. Its eradication is rather difficult in uncultivated land, but not very difficult in cultivated fields. In past years seed has been harvested for market from the wild crops growing in waste places, and even at the present time seed offered for sale frequently.

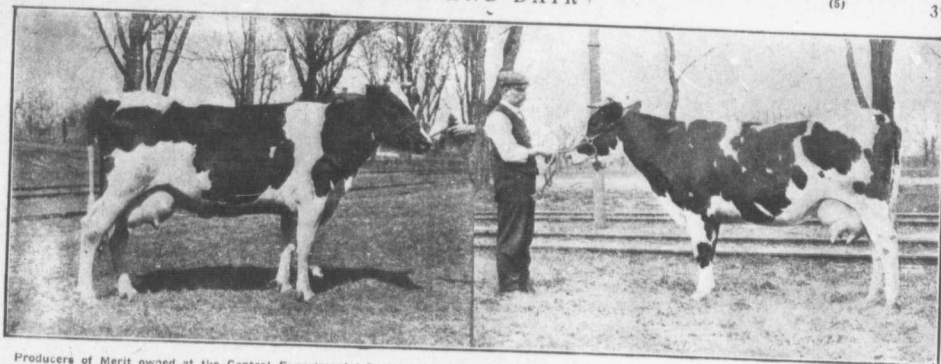
(Continued on page 13.)



A "Forehanded" Practice that Present Conditions are Making Necessary.

Mr. Philip S. Halsey, Kings Co., N.S., is endeavoring to ease the labor problem by a better distribution of work throughout the year; hauling and spreading manure during the winter months is one means to this end. Incidentally, we may remark that the gentleman appearing in the illustration is not Mr. Halsey, but one of the luxuries of the farm of 1917—a hired man.

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Producers of Merit owned at the Central Experimental Farm, Ottawa—May Echo Posch, the new junior three-year-old Canadian milk champion, and Canaan Beauty 2nd.

New Canadian Milk Record for Three-Year Old Holsteins

With an Account of Feeding Methods Followed at the Central Experimental Farm

PROF. E. S. ARCHIBALD, Dominion Animal Husbandman.

A JUNIOR three-year-old Holstein heifer, May Echo Posch—36074—, developed and owned by the Dominion Experimental Farm, Ottawa, has just completed a year's official R. O. M. test, establishing a new Canadian milk record for the Junior three-year-old class. Freshening at three years and twenty-eight days, she produced in 365 days on official test, 24,458.7 lbs. of milk and 806.77 lbs. of fat, equivalent to 1,008.46 lbs. of 80 per cent. butter. Although only the second heifer in this class to have completed the official R. O. M. yearly test in Canada her record is exceptionally good when considering the very poor start which she had. For milk production she replaces the Canadian official champion Junior three-year-old Lady Pietje Canary's Jewel—17314—, which heifer produced 24,149 lbs. of milk, and 938.93 lbs. of fat. This record of May Echo Posch's places her second on the world's list of Junior three-year-olds for milk production, official test.

May Echo Posch was bred by Mr. F. R. Mallory. Her sire is Dido Count Gerben—9751—, a grandson of the famous bull, De Kol 2nd's Butter Boy 3rd. The dam of May Echo Posch is Lawncrest Rosa Posch, a daughter of the famous bull Inka Sylvia Beets Posch—5563— and out of May Echo Darkness—10322—. May Echo Darkness in turn is a daughter of the famous sire, Sir Inka Darkness Keyes, and out of May Echo Verbele—5520— (the dam of May Echo Sylvia) and in turn one of the famous daughters of the great cow, May Echo.

May Echo Posch consumed the following feed during the six weeks before freshening and the twelve months on test:

Meal at \$25.00 per ton	6,822 lbs.	\$85.24
Ensilage and roots at \$2.00 per ton	22,510 "	22.51
Hay at \$7.00 per ton	2,017 "	7.05
Green Feed at \$3.00 per ton	6,875 "	10.31
Dried Beet pulp at \$3.00 per ton	636 "	9.22
Total cost of feed		\$134.33

Valuing her eighty per cent. butter at 35 cts. a lb. and skim milk at 29 cts. a hundredweight would show a gross return of \$400.14 with a profit

over feed of \$265.78. Had milk been sold at 8 cts. a quart the gross returns would amount to \$782.40 with a profit over feed of \$648.04.

It will be seen in the above that the average per cent. fat in the milk was 3.29. Undoubtedly had this heifer been given a reasonable rest and preparation for calving the percentage of fat might have been materially higher, at least during the first two or three months of her lactation period. It will also be noticed that the feed cost to produce 100 lbs. of milk was 58.9 cts., and the feed cost to produce 1 lb. of butter, 13.3 cts.

six months and twenty-four days, this heifer produced 18,637.5 lbs. of milk and 805.32 pounds of fat and 756.79 pounds of butter testing 80% fat. Although this is considerably less than her stable mate, yet it was a very good record for a heifer at this age.

Canaan Beauty 2nd, is a great granddaughter of the famous cow, Sarah Jewel Hengerveld 3rd—7532—and also a great granddaughter of Lilly's Judge Askrum De Kol—2484—the sire of many heavy producing cows of excellent type.

Canaan Beauty 2nd consumed during the two months previous to freshening and the 12 months of official test, the following feed:

Meal at \$25.00 per ton	6,205 lbs.	\$77.56
Ensilage at \$2.00 per ton	21,412 "	21.41
Hay at \$7.00 per ton	1,852 "	6.48
Green Feed at \$3.00 per ton	6,875 "	10.31
Dried Beet pulp at \$29 per ton	368 "	5.34

Total cost of feed \$121.10

Valuing her 80% butter at 35 cts. a pound and the skim milk at 20 cts. a hundredweight the gross return would be \$300.02, or a profit over feed amounting to \$178.92. Valuing the milk at 8 cts. a quart the gross return would amount to \$594.16, or a profit over feed amount to \$473.06.

It will be noticed in the above records that the average per cent. fat in the milk from this heifer was 3.34, the average feed cost to produce 100 pounds of milk was 65 cts., and the average feed cost to produce one pound of butter was 16 cts.

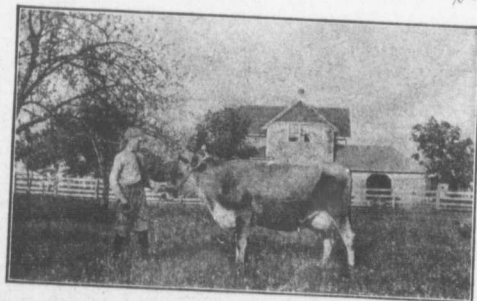
Methods of Feeding.

During the year's test the two heifers above mentioned at no time received all the grain or roughage which they desired. During the first eight months of the year both heifers received practically the same ration which was a mixture of:

Hay (mostly clover)	6 to 8 lbs.
Corn Ensilage	30 lbs.
Roots when available	60 lbs.

This was fed daily, in addition to which was given grain, never exceeding 25 pounds daily, and

(Continued on page 12.)



Lady Pauline, 4266. A Splendid Representative of Her Breed.

Lady Pauline, owned by Wesley McIntyre, Sardinia, B.C., has a R.O.P. production of 19,023 lbs. of milk and 491 lbs. of fat as a Junior two-year-old. This exceeds the production of Brampton Central Princess, for which a championship in this class was recently claimed. Incidentally, in sending this photo of his best Jersey, Mr. McIntyre has also given us a fine view of his home, a type typical of British Columbia.

May Echo Posch finished her lactation period on the fifth day of February, 1917, in splendid condition, weighing 1,348 lbs., which was an increase of more than 200 pounds over her weight at the commencement of this period.

Canaan Beauty 2nd—21172—, A senior three-year-old Holstein heifer, owned and developed by the Dominion Experimental Farm, Ottawa, has also just completed a year's official test. Freshening at the age of three years

FARM AND DAIRY Axioms for Sheep Raisers

Some Things That All Should Know About Sheep and Lambs

CULTIVATE For Greater Production

The better the cultivation, the better the growth.

Men right around you found the benefit of first-class cultivation last year. In the construction of the Peter Hamilton Cultivator the Peter need has been considered and every requirement provided for. The different groups of three rows of teeth are subdivided again, and the front teeth are attached to one tooth-frame, back row to another. All teeth are an even depth and thoroughly work up every inch of ground. The

PETER HAMILTON Cultivator

is a light draft implement, in spite of its superior strength. Teeth are strongly reinforced, and will stand all the hard work they will get. Sections are made from extra heavy steel. See the Peter Hamilton Cultivator before buying.

Agents wanted in open territory

The Peter Hamilton Co. Ltd.
PETERBOROUGH, ONT. 17



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SHEEP raising is receiving an impetus from the high prices now prevailing for wool, mutton and lambs. It is also receiving encouragement on account of the small amount of labor which it entails, an important consideration under existing labor conditions. To those who are in the business, or contemplate it, the following axioms contain a wealth of information seldom packed into such small compass. They were prepared by the Live Stock Branch in connection with their wool exhibit and demonstration sent out to the leading fairs.

Advantages of Sheep Raising.

The sheep is a dual purpose animal, producing both wool and mutton. The initial expenditure is small. Every farmer can afford the investment.

Rapid monetary returns are received, the wool clip and lamb crop being saleable annually. Expensive buildings are by no means necessary.

Sheep will eat and relish almost every class of feeds.

Sheep admittedly improve fertility.

Except at certain seasons of the year, less care and attention need be bestowed upon the care of sheep than with almost any other animal.

Advice to Beginners.

Select a breed adapted to the conditions under which they are to be maintained.

In selecting a sire, bear in mind that he is half the flock.

Uniformity of type should be the direct aim of every breeder.

This applies to a grade flock as well as to a pure breed.

Practice a rigorous culling every year.

Avoid feeding frozen silage or roots, as these may cause digestive troubles.

Pasture on high and dry land, since parasites attacking sheep breed in stagnant water.

Care of the Flock.

Regulate the time of lambing to suit the requirements of the market.

Do not neglect to provide some succulent food for the ewes, such as turnips, cabbage or mangels for the winter ration.

Every well regulated sheep barn should have a warm lambing pen. This should be located in the south end.

If pasture is not ready, commence feeding the lambs when about two weeks old.

Lambs should be fed in separate pens from their dams; otherwise the ewes will take what is intended for them.

All lambs must be docked. This operation is done most satisfactorily when they are from 10 to 14 days old.

Ram lambs not intended for breeding purposes must be preserved entire.

To Produce a Good Quality of Wool. Feed sheep regularly and well.

Sheep poorly fed will possess a hard fleece. Every effort should be taken to keep the wool free from chaff, hay or burrs.

Keep the wool well clipped behind, so as to avert the formation of heavy dung locks.

Endeavor to eliminate in breeding operations black sheep from the flock.

In marking sheep, never use oil, paint or tar, which may cause skin disease.

Sheep should be dipped twice a year; in the fall before entering winter quarters, and in the spring after shearing.

To ensure success in sheep raising, \$70.

dipping should be performed twice a year. Dipping improves the length, strength and quality of the wool fibre. Sheep infested with ticks and lice will never thrive.

Dipping in a safeguard against both parasitic pests and skin diseases.

Dipping should be done on a bright sunny day, and the sheep should remain in the dip at least two minutes.

A dipping tank for cooperative use is a big asset to a community.

Dipping fluids should be heated to about 110 degrees F., and soft or rain water is preferable.

Directions for Preparing and Packing Wool.

Shearing should be done on a clean board floor, never in the dirt.

The fleece should be tied with paper twine; never binder twine nor steel.

Turn inside of fleeces with clipped neck and tail to the centre.

The wool should be packed in closely woven jute hemp or paper lined sacks.

Facs, dunglocks or stained pieces should never be included with the fleece.

The wool should be absolutely dry at shearing, and should never subsequently be permitted to become wet.

Tub washing should not be practised. If washing is followed at all, it should be done on the sheep's back.

Black fleeces can only be used for colored fabrics. Colored fleeces are the result of fibres felted together for lock of yoke.

If a fleece is tied with the neck piece, it is difficult to unravel at the mill.

Fleece tied with binder twine or sisal have fibres from the twine incorporated in the wool, and this causes a defect in the cloth.

Fleece torn to pieces are almost impossible to sort at the mill.

Tub washing mixes the different qualities of the fleece so as to render sorting impossible. It is not a commendable practice. Seldom is the labor actually repaid.

Grinding Feed for Lambs

EXPERIMENTS conducted at the Nebraska Experiment Station during the winter of 1914-15 indicate that the grinding of grain and alfalfa hay for lambs is not profitable under present conditions. While lambs fed a mixture of ground corn and ground alfalfa went on full feed quickly, cleaned up their feed each meal, and remained thrifty and vigorous throughout the entire feeding experiment, their increased weight was put on at a cost considerably higher than that of lambs fed shelled corn and alfalfa hay. The difference amounted to practically \$1 on each 100 pounds gain. The same striking difference was noticeable in comparing lambs fed on ground corn, ground alfalfa and corn silage and ground alfalfa and shelled corn, whole alfalfa, and corn silage.

Amortization, as used in connection with credits, means that when the interest is paid each year a small payment is also made on the capital. For instance, if \$1,000 is borrowed at five per cent., to run 15 years on the amortization plan, the annual payments would be \$100, except the last month when it would be \$121.67. The first year \$50 would be for interest and \$50 on the capital. The 14th year the interest would be \$57.72 and the amount on capital, \$141.22. If the loan was \$1,000 at five per cent. for 26 years, the annual payments would be \$70.

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Asks you
about your herd
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tell him all he should
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SITUATION WANTED.

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Apply Box 21, Farm and Dairy, Peterboro, Ont.

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ALL KINDS No. 1 Seed Corn. Try our improved Reddy's Yellow Dent, on cob or shelled. Geo. Twiss, Woodside, Ont.

A LIMITED quantity of good Bailey and Wisconsin No. 7 Seed Corn for sale. John Wallace, Ruscobon, Ontario.

WANTED—To hear from owner of farm or unimproved land for sale. O. O. Mattson, 2987 Cedar Ave., Minneapolis, Minn.

FOR SALE—Combined McCormick Fertilizer and Grain Drill—13 hds. This machine is in the shape, and is being offered at a bargain. Eight months' time allowed if desired. Joseph O'Reilly, R. R. 9, Peterboro, Ont.

CHEESEMAKER WANTED for South Burleigh Dairy Co.; small factory. Apply stating salary and experience, to William McCaulley, Hamilton.

TOP DRESS all your Crops with Nitrate of Soda, no matter what other fertilizers you may have used—100 pounds to the acre for seeded crops and 200 pounds to the acre for the cultivated ones. The increase will yield large profits over the cost.

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Sweet Fresh Ensilage

THE HYLO SILO is a perfect silage maker. It is built of heavy galvanized iron and is covered with a heavy coat of enamel. It is built of heavy galvanized iron and is covered with a heavy coat of enamel. It is built of heavy galvanized iron and is covered with a heavy coat of enamel.



Write for price and catalogue. Ask for a copy.

Gray Mfg. Co. Ltd. 47 York St. Toronto, Ont.

ABSORBINE

Will reduce Inflammation, Strained, Swollen Tendons, Ligaments, Muscles or Bruises. Stops the lameness and pain from a Splint, Side Bone or Bone Spavin. No blister, no hair gone. Hence can be used on a horse's face. Write for a 25¢ bottle delivered. Describe your case for special instructions and Book 3 K Free.

ABSORBINE is the antiseptic liniment for man, dog, horse, and all animals. It is used for all kinds of skin diseases, such as eczema, psoriasis, and other eruptions. It is also used for rheumatism, neuralgia, and other pains. It is a powerful antiseptic and disinfectant. It is a powerful antiseptic and disinfectant.

FEEDERS CORNER

Balancing Rations

WHAT would be the best method of feeding 25 milk cows with the following feeds on hand: 25 tons mixed clover and timothy; 250 bushels good oats; two and one-half tons bran, bought at \$27; three tons two tons oil cake at \$42 a ton? I have enough silage to give the cows 30 lbs. a day. It has no corn in it and I am now feeding a mixture of 800 lbs. rolled oats, 300 lbs. cottonseed, 100 lbs. oil cake and 300 lbs. bran. Of this, each cow gives from 25 to 40 lbs. milk a day, gets seven pounds a day.—G. S. E., Corwin, Ont.

The meal mixture which you are feeding is one well adapted to the production of cheap milk. Since you have advised any alteration in the mixture, but would advise that you feed this grain at the rate of one pound for every four pounds of milk produced. You will notice that a ration composed of 30 lbs. ensilage, 10 lbs. mixed hay, and 10 lbs. of grain gives total of digestible nutrients amounting to 2.4 lbs. protein, 14.2 lbs. carbohydrates and fat multiplied by 2.4. This gives a liberal supply of digestible proteins and a proper balance in its relation to carbohydrates and fat.—E. S. Archibald, Dominion Animal Husbandman.

Summer Crop Queries

DOES rye with other grains make a good winter and spring feed for sheep? (2) Can Soy beans be grown clover down in the part of Ontario? (3) Would seed any of the following mixtures help them? (4) What would be a good pasture mixture for cows for one summer? (5) What would be a good pasture mixture for cows for one summer? J. M. M., Hastings Co., Ont.

Rye with other grains may be successfully used in the feeding of sheep at any time of the year. The value of rye depends very largely on the market quotations at which oats and barley are held. Although not so palatable it is probably worth slightly more than oats if not composing more than one third of the grain mixture. It is doubtful if Soy beans may be a profitable crop in Hastings county unless a very early strain be procured. Prof. C. A. Zavitz of the Ontario Agricultural College at Guelph, has been successful with early strains of his own selection.

The practice of seeding clover on old pastures is not generally recommended, although some Dutch clover added to perennial grasses might in many cases be harvested into old pastures with good results. The question of annual pasture mix-

tures for milk cows is absorbing more and more the attention of the farmers throughout all Canada. Many annual pasture mixtures have been successfully used throughout Ontario and two outstanding ones are as follows: A mixture seeded per acre in the following proportions: Oats 51 lbs. Early Amber sugar cane 30. Red clover 7 lbs. Another mixture used successfully is composed of one bushel each of oats, barley and wheat per acre, the land to be seeded to clover if so desired.—E. S. Archibald, Dominion Animal Husbandman.

Distiller's Grains

I CAN procure from a nearby distillery a product which runs 24 per cent protein, 14 per cent fat and 10 per cent cellulose for \$2 a ton. Would this be more valuable for feeding cows than barley at, say, \$1.15 a bushel and other common grain prices? (2) What in conjunction with the distillery product? I am feeding clover hay, ensilage, and a little straw. (3) What grains should be used with this product for fattening hogs and cattle?—B. D. Hastings Co., Ont.

The feed which you are procuring from a nearby distillery appears to be a high grade of distiller's grains and at price which you quote, viz., \$26 a ton, is very reasonable. This is undoubtedly the cheapest protein feed which you can purchase at prevailing prices. Even at the same price pound for pound this feed is superior to barley, particularly as a source of protein. Neither of these feeds are suitable for a total grain ration for milk cows. In conjunction with the distiller's grains I would advise feeding bran and gluten feed or oil cake. A mixture composed of equal parts of these three grains fed at the rate of one pound for every four pounds of milk produced to cows giving 30 lbs. of milk or more will be found very economical. In addition I would advise feeding 10 lbs. of clover hay, and 80 to 35 lbs. of ensilage. All these feeds to be divided into two feeds daily. One small feed of straw per day in addition to the above might be found satisfactory.

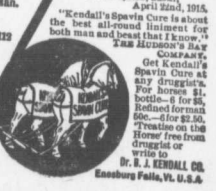
Splendid results have been obtained this year in the finishing of hogs on a mixture composed of two parts of corn, two parts of middlings and one part of distiller's grains. For the finishing of steers it would be advisable to replace the middlings with bran and the addition of two parts of oats if available and two parts of distiller's grains in addition to the above.—E. S. Archibald, Dominion Animal Husbandman.



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Kendall's Spavin Cure

—has been used by horsemen, veterinarians, and farmers for over 20 years. Its worth has been proved. It is a powerful anti-inflammatory and is used for all kinds of spavins, splints, and other ailments of the horse. It is a powerful anti-inflammatory and is used for all kinds of spavins, splints, and other ailments of the horse.



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STANDARD EQUIPMENT

- Valve-in-head motor.
- Electric lighting and starting system.
- Selfish sliding gear transmission, 3 speeds forward and reverse.
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- Non-skid tires on rear wheels.

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SEND FOR DESCRIPTIVE LITERATURE.

Bloody Milk

COULD you tell me what is the matter with my cow? Every once in a while we find small dots of blood in her milk. She is in apparently good health, eats well, and gives about 13 lbs. milk daily.—Subscriber.

This is a trouble that many dairymen have to deal with. In all probability your cow is giving bloody milk from but one quarter. It would be wise to find which quarter is responsi-

ble for it and milk this quarter separately. Unless she is very bad the condition will likely disappear, and in all probability will not be noticed when next she freshens. The cause may be from many sources. It is likely, however, that the animal has had one quarter of her udder injured in some way. It may have been done in the stable, in the yard or on pasture. The injury has healed to some extent, but the manipulation of the udder

and teats have a tendency to break open that portion of the udder and cause bloody milk. The animal may be in excellent health. It will not affect the milk from any of the other quarters.

The early hatched pullet is the one that lays the winter eggs. The late hatched pullet does not mature before winter, and is apt to be a winter layer instead of a winter layer.

Keep up the Food Supply and Help Make Victory Sure

OUR soldiers must be fed; the people at home must be fed. And—in spite of Germany's murderous campaign to cut off the Allies' Food supply, by sinking every ship on the High Seas—an ample and unflinching flow of food to England and France must be maintained.

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Not to the Farmer only—
But to YOU—to everybody—
This appeal is directed*

WE must unite as a Nation to SERVE—to SAVE and to PRODUCE. Men, women and children; the young, the middle aged and the old—all can help in the Nation's Army of Production.

EVERY pound of FOOD raised, helps reduce the cost of living and adds to the Food Supply for Overseas.

For information on any subject relating to the Farm and Garden, write:

INFORMATION BUREAU
Department of Agriculture
OTTAWA

Dominion Department of Agriculture

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HON. MARTIN BURRELL, Minister.

"I AM assured that my people will respond to every call necessary to the success of our cause—with the same indomitable ardor and devotion that have filled me with pride and gratitude since the war began."

HIS MAJESTY KING GEORGE

HORTICULTURE**Orchard and Garden Notes**

ORDER a few autumn-bearing strawberries to furnish fruit this fall. Progressive is a good variety.

Currants and gooseberries may be set out this spring. A few plants of a good red variety will well repay the effort of their care.

Plant at least a half dozen new perennials in the border this year. Pick them out now and get the seed or be ready to order the plants.

Don't be sparing of manure on the garden. We expect large crops from a small area and hence must supply plenty of plant food which may be quickly made use of by plants.

It will do no harm to try a few new things this year. They are interesting and may be valuable. Don't make the new things a too important part of the garden.

Place plenty of broken pottery, stones, or charcoal in the bottom of the pot or box in which seed is sown. Good drainage is needed in the seed-box as well as for the growing plant.

Watch the hotbeds carefully on bright warm mornings. It does not take long for the heat to run up high enough to injure the plants. Stocky plants can be obtained only by giving the best of attention to watering and ventilation.

Indications now are that the garden will be well worth some extra care and attention this year. Better get plenty of good seed early and be ready to plant as soon as possible. Plan for a good variety of vegetables the season through, from radishes to celery. Don't leave out the melons.

Brown Rot on Plums and Peaches

(Experimental Farms Note.)

THERE is one phase of fighting this disease which is hardly ever given enough consideration,—the destruction of the old dried-up, rotted fruits, or "mummies," which hang on the trees through the winter. Researches by the officers of the Division of Botany, Dominion Experimental Farms, have demonstrated beyond question that these mummies will readily carry the fungus over the winter, and even if they are covered with spray in the spring spraying, the fungus will readily grow out through the spray coat on the dried-up fruit. The resulting spring infection is quite important, not only because it starts the fungus again for the summer, but because it is apt to cause the destruction of a large number of blossoms. Damage from this cause was quite prevalent in both 1915 and 1916, and especially in the latter year this factor acted in conjunction with shortage of bloom and poor setting conditions to lessen the fruit crop materially.

Plum mummies may be shaken or knocked off the trees at any time in the winter and this work may be conveniently done along with pruning; but in the case of peaches they should be taken off as soon as the fruit starts to rot, that is, at picking time. This early removal in the case of peaches is necessary because the juice from the rotting peach passes back into the branch, which is thus killed for distances up to two feet or more. The loss of the twig or small branch in this way is not so important as is the danger of having cankers started on large branches where the twigs are killed back into them.

In large commercial orchards the only practicable way in which to dis-

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pose of these mummies is to have them plowed under, but in small orchards, or in garden plots, they may be raked up and burned or buried; and it is well worth while to do this when cleaning up in the fall.

For a more complete account of this disease see Bulletin No. 24, Second Series, obtainable on request from the Central Experimental Farm, Ottawa.

Why Not Grow Beans

AUSTRIAN beans once dominated the Canadian bean market. Cheap Austrian labor was supposed to make bean growing unprofitable for Canadians in all except the most favorably situated districts,—Kent county, Ontario, for instance. Now, with Austrian beans off the market and the price above six dollars a bushel, the crop should look good to many farmers outside the bean counties of Ontario. The cultural requirements of the crop are simple. Beans do well on most any soil where corn and wheat are profitably grown. They especially like a fairly compact, well prepared seed-bed rather loose on top. They may be planted with the wheat drill at the rate of from two to four pecks to the acre. The same tools used for cultivating corn and potatoes may be used for cultivating beans. Beans root shallow and great care should be taken not to destroy these roots. When clean seed is carefully planted about one to two inches deep on a well prepared fairly rich soil, beans are a very profitable crop.

Shall We Plant Potatoes?

WHAT acreage shall we plant to potatoes this coming season? Spuds were a profitable crop last year—where one was fortunate enough to have a crop. Prices have now reached an unheard of level. A good potato sells for more than two or three Northern Spy apples. Do present prices justify large planting?

"Prices are so high now that they will surely be at a profitable level next year," a grower remarked to me a few days ago. This set me to thinking. Will the shortage of potatoes this year have any effect on the price next year? Potatoes are a perishable product. They are not carried over from year to year as is wheat. Prices this year, therefore, have practically nothing to do with prices next year, except insofar as the high price of seed might keep down the acreage. The price next year will be determined wholly by the crop next year.

There are two features, however, which should encourage larger plantings where a good acreage can be handled. The labor problem is acute and the tendency will be to eliminate crops which require much manual labor. Among these is potatoes. Then again the world is face to face with food scarcity. Potatoes will produce more human food per acre than almost any other crop. To grow as large an acreage as possible, therefore, may be a patriotic and humanitarian act. Anyway, as a result of the thinking inspired by our neighbor's question, we are going to grow a few more potatoes than usual this year.—F. E. E. Halton Co., Ont.

A gopher census was conducted in Manitoba last year, the results of which show a gopher population of 9,000,000 in 25 townships. The annual feed bill of these pests was estimated at \$2,250,000, or \$100,000 a township. In some townships the loss more than doubled the cost of seed grain.

Now is a good time to study up the silo problem so as to be ready to put one up next summer.

Increase the Production of Your Farm By Clearing Your Land With a

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THE GOLD IN YOUR STUMP LAND

With the increasing demand for foodstuffs which now exists in Europe, the Government has sent out a timely call for increased production. You can "do your bit" at home by making every foot of land produce, not stumps, but crops to feed our soldiers at the front.

Almost every farm has two or three acres, and possibly several more, of land which have a few deep-rooted stumps that you haven't been able to pull without a great deal of effort.

CLEAR UP THIS LAND—YANK OUT THE STUMPS

At the outside you cannot cultivate more than 50 per cent. of the average partly cleared piece of land.

The Kirstin method is guaranteed to clear your land from 10 to 50 per cent. cheaper than any other method.

When you buy a Kirstin Stump Puller you get a Guarantee Bond which protects you against breakage—law or no law—for fifteen years, and the helpful advice of our land clearing experts is at your service for all time to come.

Act now—send for our illustrated book, "The Gold in Your Stump Land," and details of our profit-sharing plan.

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Largest manufacturers in the World of Stump Pullers—Hand and Horse Power. 33-2-17.

Kirstin One Man Stump Puller

COCKSHUTT LIGHT TRACTOR PLOW

NEW---yet already well tried and a splendid success

Just a Few of Its Remarkable Good Points

Ideal for two or three furrows. You can turn it into a two or three furrow plow at will.

Just a pull on a cord lifts the bottoms from the ground to avoid an obstruction.

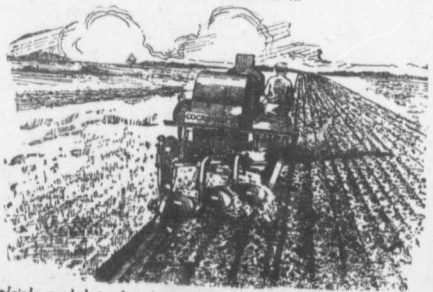
Just a pull on the same cord lowers them and the bottoms dig straight to their work like a walking plow.

The land wheel and an exclusive eccentric and clutch "do the trick"—easy.

Change the depth of work by easily handled levers—without stopping or slowing up the plow.

Staggered front wheel ensures absolutely true running with furrows always even—and high clearance to avoid trash.

Cockshutt light draft and high quality materials.



We have a handy, descriptive, plainly worded circular about this Plow. Write for it to-day

COCKSHUTT PLOW COMPANY LIMITED
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THE FROST & WOOD CO. LTD. SMITH'S FALLS
MONTREAL, ST. JOHN

When You Write--Please Mention The Farm and Dairy

Notes, Queries and Answers

Dog Frightening Team

JUDGE Hopkins, of Haldimand, has given an interesting decision in which the plaintiff sued the defendant for \$500 damages caused by a dog frightening a team of horses, causing them to run away and throwing out the plaintiff, his wife and daughter, causing injuries to them.

The judge gave judgment for the plaintiff for \$350 and costs.

Length of Milking Period

How long should a young cow milk, and will it hurt the cow or calf. She is well fed and is already milking 11 months.—S. S. Renfrew Co. Ont.

It is a good plan to teach all heifers dairymen plan to have them milk for 12 to 15 months. If the heifer is to be milked for this length of time, she should receive plenty of feed and good care. She should also be bred so as to allow for a period of rest before her second freshening.

Free Martins

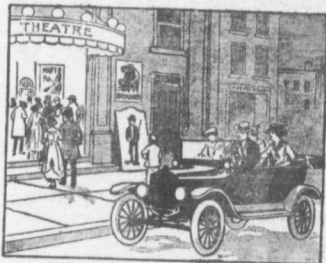
Are twin calves likely to develop into good breeders?

It is possible to increase the fecundity of animals by selecting from large litters and this applies to animals producing normally only one at a birth in that twin born females will tend to reproduce the twin-bearing tendency in their offspring. An exception to the rule is found in the case of twin calves, one of which is a bull and the other a heifer. In such cases the heifer is usually sterile and is called a "free martin." Otherwise, twins are good breeders.

Indigestion

I HAVE a colt rising three years old and it takes indigestion every little while. I feed clover and timothy hay mixed and a turnip or carrot every night. No grain. Will you kindly advise what causes this trouble?—J. E. Forth Co.

These attacks of indigestion are due to weakness of the digestive glands. Give him a laxative of one pint raw linseed oil. Mix equal parts of powdered gentian, ginger, nuxvomica and bi-carbonate of soda and give him a heaped dessertspoonful three times daily. Feed a little less hay and give a little rolled oats and bran and continue the roots. Give him daily exercise.



Keeping the Boys and Girls Contented

A Ford car will give your boys and girls so much additional pleasure and enjoyment that they will be more satisfied to remain on the farm. They may then enjoy all the pleasures of city life and still live at home.

For a trip to a distant house party, a quick run to the nearest town or city theatre, or a quiet ride to church—the Ford does it all.

Buy a Ford and note the new interest you take in life. You will find your Ford always ready for a spin on either business or pleasure.

If you have a "problem" in keeping your boys and girls at home, try to solve it the Ford way, you'll find life more worth living. Work on the farm will be easier, because you have more pleasure to go with it.

Ford

Runabout . . . \$475

Touring Car . . . \$495

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International Egg Laying Results

THE Sixth International Egg Laying Contest being held at Victoria under the auspices of the British Columbia Department of Agriculture, has just finished its fifth month. Among the light weight varieties, White Leghorns occupy the first 11 places, the best production to date being 323 eggs by a pen owned by J. O. M. Thackeray, Chilliwack, B.C. In the heavy weight classes, the record so far goes to White Wyandottes for first three places, the greatest production of 479 eggs being from a pen owned by G. D. Adams, Victoria, B.C. An unusual feature of the contest is that there are six pens of the heavier breeds which do date have obtained the highest Leghorn pen.

Broody Theories

THERE used to be a theory that hens without the attention of a male bird, would lay just as well and not be so apt to become broody, as those mated. Our records show they will lay just as many eggs alone, as if mated, and that unmated flocks are not broody-proof by any means. In a flock of unmated pullets, every one became broody before one of the mated flock showed any sign in that direction.

It was once thought that hens would become broody before pullets, and furthermore, that overfat inclined hens to broodiness. Both these theories have ever since been exploded. Every year, on the farm of the writer, the pullets are the first to show signs of broodiness (evidently on account of their early and heavy laying) and the very fat hens (the older they grow the more they are apt to get too fat) are the last to think of raising a family.—M. K. B.

Starting the Incubator

NOW is the time to get the incubator in running order. Chicks that are hatched before April 15 are liable to moult in the fall and refuse to lay any eggs until the following spring. Of course they will lay well during August and early September, but it is winter eggs, not summer eggs, that we want. We plan to start our incubator on the 23rd day of March and get out our first batch of chickens the middle of April. We would like to run our incubator three times and cut down cost of equipment, but we have found that chickens hatched later than the second week of May are not a profitable proposition. They don't get down to business soon enough in the fall. We are therefore running only two hatches in the year.

The incubator should now be set up in a place where the temperature is moderate and uniform. The house cellar answers this description more closely than any other shelter on the farm. Take the spirit level and make sure that the incubator is standing just exactly right. If one side of the egg chamber is a little higher than the other, the temperature throughout the chamber will not be uniform and the hatch will be reduced accordingly. Our first move once we have the incubator in its proper place, is to thoroughly scrub every square inch of the interior with a solution of zeno-leum. Then we start the lamp three

days before the eggs arrive and regulate the machine to run evenly at 102 degrees. The regulator is considered correct when it stands about one-eighth of an inch above the blow off wheel. The thermometer inside registers 102. Once we know that the regulation is right, we don't worry if it takes the eggs a considerable time to warm up, or if the regulator seems to be acting queer for the first couple of days. We run the machine at 102 degrees for the first five days, at 103 degrees for the remainder of the period.

Thorough disinfection with zeno-leum is a point we wish to emphasize most strongly. White diarrhoea is the great enemy of chicks artificially hatched, but we have never had a case of it and this we have attributed largely to the liberal and thorough use of disinfectant.—F. E. E.

Eggs for Incubation

"FERTILITY guaranteed. This statement is accompanying a larger number of poultry advertisements this season than ever before. And if the advertiser is a reliable poultryman he means just exactly what he says. Fertility in hatching eggs is the direct result of correct management of the breeding flock. A few suggestions to purchasers of hatching eggs may not be out of place at this season of the year:

(1) Be sure that the breeding pen from which your eggs come is composed of vigorous two year old hens and cockerels. Pullets deplete their vitality by heavy laying, the eggs are not so large, the fertility is not so high nor the chicks so vigorous. This is true, however, of Le Meditteranean breeds such as Leghorns, than of the American breeds such as Rocks.

(2) The newer laid the egg the more vigorous is the germ. If possible use no eggs for incubation over 10 days or two weeks old. Strong zermis may be held for three weeks. Eggs will be fertile and reliable two weeks after the male bird has been introduced to the flock.

(3) Eggs of normal size are preferable to extra large or ill shaped eggs.

(4) If the eggs are received a day or more before they can be placed in the incubator turn the cases one-half over every twelve hours. Store the eggs in a moderately cool place, say 55 or 58 degrees F., but avoid chilling.

(5) Never use any account grease or oil on the incubator. It shuts out air and kills the germ. Even yet, however, we hear of this greasing being done.

(6) Eggs must be gathered frequently during cold weather. Well established poultry men will see to this, however, without being questioned.

The hen is not so apt to eat the eggs in a deserted nest and wants her nest in a darkened place.

Hens over two years old do not lay many eggs and they are more apt to be diseased and hence disease carriers. Secure the early hatched pullets, feed it well, and swat the old hen if you want winter eggs.

Now is the time to lay plans for hatching pullets next winter. The early hatched pullets are the ones that lay the winter eggs. And now is the time to lay plans for having the early pullets. Where the incubator is used ranged, but where the hens do the hatching it will depend on when they are ready.

You need a good gas engine—buy an ALPHA now

THERE is no question about your needing a good gas engine. Every day you can see ways in which it would be a big help. Why delay the purchase any longer? You are not saving money by doing without an engine. You are actually losing money. You will not begin to save the price of a good engine until you buy an Alpha and let it do the saving.

But be sure the engine you buy is a good engine—a high-grade, reliable, durable engine that you can depend upon to do the work you expect of an engine.

The first cost is the last thing to consider. The lower the first cost, the lower the quality of an engine, and you cannot get reliable service, durability, low repair and fuel costs, with such an engine. Buy your engine with an eye to the future.

There is nothing mysterious about the superiority of an Alpha. The better design of this engine, the quality of material and workmanship that go into it, are easily seen. Every feature of this engine has in it some sound reason why the Alpha will give you better service and last longer.

Ask for and read our large engine catalogue carefully, and you will see where the extra value comes in.

Alpha Gas Engines are made in eleven sizes, 2 to 28 H.P., and each size is furnished in stationary, semi-portable, or portable style, with hopper or tank-cooled cylinder.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA.
 Sole distributors in Canada of the famous De Laval Cream Separators and Alpha Gas Engines. Manufacturers of Ideal Green Feed Silos.

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BISSELL Double Action Harrows will thoroughly cultivate and pulverize any soil.

One Harrow is Out! Throw the other in! Harrows are simply constructed, rigid and durable. The Gangs are flexible and the Disk Plates are so designed that they "hang" right into the soil. Bissell Harrows are built in sizes and weights suitable for horse or tractor use. Write Dept. R for free catalogue.

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APPLE TREES

The best varieties, all Government inspected trees at rock bottom prices, delivered at your nearest railway station. You will never again, we believe, have an opportunity to buy selected trees at these low prices. Nurserymen and growers predict next year an advance of from ten to fifteen dollars per hundred. Place your order now while we have a general assortment on hand.

E. D. SMITH & SON, Limited
 Nurserymen WINONA, ONT.
 Established 1882.

When You Write---Mention Farm and Dairy

Kenora District at the Eastern Seed Fairs

New Ontario Farmers Are Becoming Seed Specialists—L. H. Hanlan, District Representative

MANY people in Eastern Canada must wonder at the idea of farmers 1,100 to 1,400 miles away from the Guelph, Ottawa and Quebec Seed Exhibitions, being particularly interested; however, we find that many seed growers, even at this remote distance, are more intimately acquainted with these exhibitions than thousands of the farmers within a comparatively short distance to the actual place of the holding of the fairs. To any person who has spent any time in the District of Kenora, particularly in the vicinity of Dryden and Oxdrift, the reason would be very obvious. The farmers here are specializing in the growing of clover seed. In order to become widely known throughout the Dominion of Canada as one of the greatest seed-producing centres in the Dominion, it dawned upon the seed growers of the district that it was up to them to place their seed in competition with seed produced in other districts. This

they did, and following are the results:

Guelph—Open Classes.
Alfalfa 1st prize
Red clover, 1st, 2nd, 3rd, 4th, besides the Championship cup, donated by Geo. Keith and Sons.
Alsike 1st, 5th

Ottawa—Open Classes.
Red clover .. 1st, 2nd, 3rd, 4th, 5th
Alsike 2nd, 3rd, 4th, 5th

Field Crop.
Clover 1st, 2nd, 3rd, 4th
Potatoes 3rd

Quebec—Open Classes.
Red clover 1st
Alsike 1st

It is interesting to note in passing, that at the Ottawa Fair 13 entries were made in clover seed, and every one carried off a prize, as was also the case at the Quebec Fair, there being only two entries made, and each one

was given first place against a large number of entries. Is this not a good object lesson of what it is possible to accomplish by a little specializing on the part of the farmers themselves, and also of the possibilities of New Ontario? While many have tried and failed, the fault must have been with themselves, and not with the country, as those that have set about their task with a firm resolve to succeed are now congratulating themselves on their accomplishments, and are quite contented and happy.

While the growing of clover and other seeds is somewhat of a specialty, it is not, by any means, the only line of farming undertaken by the farmers of the north country. Sheep raising is at present receiving considerable attention, as is also bee-keeping, both of which work in excellently with clover seed production. The sheep, to keep down any weeds that might appear, and the bees to assist in the pollination of the blossoms, as in the clover plant cross-fertilization is obligatory, hence the necessity of the bee to carry the pollen from plant to plant.

In conclusion, we might add that out of 10 prizes given in the clover

seed classes at the Guelph Fair, Kenora District claimed six of them; in the alfalfa class, one prize was all that could be won, that being first. At Ottawa, out of 15 prizes given in clover seed, Kenora District claimed 13 of them, this being all the entries in this class that were made from the district. At Quebec two entries were made, both taking first place. What better showing than this could we ask for, the fact being that at that rate, or what greater evidence of the high quality of seed produced could be had?

A Job for March

Philip Hiley, Kings Co., N.S.

ONE of the advantages of indoor preservation of manure is that it can be hauled out whenever it is convenient. Usually the most convenient time comes in March, when the snow roads are good, the days are getting longer and the work is slack. We can then haul out a load that would mire us in the spring. We can also haul much larger loads on sleds than can be done on a wagon, and we only have to pitch the manure about a third as high.

Handling Crops and Stock

FEEDING crops is much like feeding live stock. The farmer who feeds his crops heavily of the right kind of plant food will have the largest crops of best quality. Our showmen know that if the baby flesh is ever lost from the calf, pig or colt, it is an expensive process to get it back, and the young stock never mature into such splendid animals as they would have done had they been kept growing from the first start. Plenty of feed gives the calf a quick, sure start. An abundance of the right kind of plant food gives the plants a running start, enables them to keep ahead of the weeds, helps them to resist disease and to mature their crops easily. These are all important, but the one that we often lose sight of is the first, namely, giving the crops a quick start. The man who sees that his soils and crops are well supplied with the right kind of plant food will have the earliest, best matured crops of highest quality. J. W. Henezeroth.

New Canadian Milk Record for Three-Year Old Holsteins

(Continued from page 5.)

The meal mixture during this period was varied from time to time but was composed of:—

Bran (4 parts).....	1,400 lbs.
Gluten Feed (25 parts).....	400 lbs.
Cottonseed Meal (41%).....	100 lbs.
Linseed Oil Meal.....	400 lbs.
Ground Oats.....	600 lbs.
Peanut Oil meal (40%).....	400 lbs.


The meal mixture fed these heifers during the latter months of this test was composed of:—

Bran.....	400 lbs.
Dried Distiller's grain.....	200 lbs.
Gluten feed.....	200 lbs.
Linseed oil.....	100 lbs.
Dried beet pulp.....	50 lbs.


Even with the comparatively heavy feeding which these heifers received the margin of profit over the feed is exceptionally good. At no time during the period was there any evidence of the heifers being off-feed and they grew rapidly and gained in condition during the latter months on test.

The accompanying photographs show these heifers after having milked several months.

The credit for these and other very good records of cows on official test on the Central Experimental Farm at Ottawa is largely due to Robert Cunningham, the herdsman at this Farm.



Surpassing in Power ~ Superb in Appointments



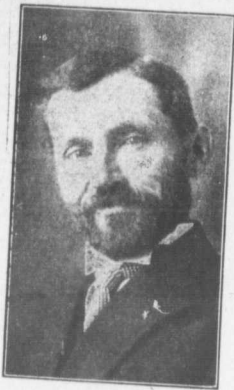
Power, or the lack of it, makes or mars an automobile. Power gives satisfaction, the lack of it, annoyance. Canadian hills and highways are easily negotiated on high gear with the reserve power of the McLaughlin valve-in-head motor. This is due to the Valve-in-head principle of the McLaughlin motor construction, which develops from 15 to 25% more power than motors of other type of the same bore and stroke.

In all the essential qualities of a good motor car—body construction, mechanical efficiency and appointments—the McLaughlin is equal to the best. In power it stands alone. The New Series McLaughlin cars include 4 and 6 cylinder models in Touring, Roadster and Sedan types, at prices ranging from \$895 to \$2350; a new 60 H.P. 6 cylinder 7 passenger McLaughlin at \$1900. Send for our new catalogue "B" describing our complete line to

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Branches in leading cities. Dealers Everywhere.

Canada's Standard Car



J. P. Griffin,
President of the Wentworth Milk
Producers' Association.

Sweet Clover in Ontario

(Continued from page 4.)

contains many impurities. The quality of the seed obtainable, however, seems to be gradually improving. Experiments with sweet clover at the Ontario Agricultural College extend over a period of nearly 25 years. The crop was grown for hay production in comparison with common red and 1892, 1895, 1897 and 1899, and the yield of hay per acre of the sweet clover was not very different from the yield of hay of alfalfa for its first year's crop. Sweet clover was compared with eight varieties of clover, sainfoin, and alfalfa from the standpoint of pasture production in the years 1902 and 1904. Various tests were made also in cutting the sweet clover at different stages of growth for feeding to different classes of farm animals, but in all instances the animals refused to eat the crop, although in some cases it was cut when quite young and tender. The bitter flavor of the crop seemed distasteful to the animals and apparently they were not starved long enough to force them to develop the acquired taste. If the crop is to be used for hay production it seems essential to cut it before any bloom appears. At this stage of development the growth is not so abundant, but the plants are less woody, and the leaves are more easily saved than when the crop is cut at a later period. There seems to be rather more difficulty in curing hay from sweet clover than from red clover or from alfalfa.

In each of two years an experiment was conducted at the College in comparing the amount of pasture crop produced by sweet clover, by alsike

clover and by common red clover. The yields per acre were determined at each of six cuttings in each of the two years. Three weeks were allowed between each two cuttings. The results are very interesting in furnishing definite information regarding these two crops in the production of green clover which would correspond pretty closely to the relative amounts of pasture produced. The following table gives the average of the two years' experiments in tons per acre of pasture crop:

Periods of Cutting	Variety of Clover.		
	Com.	Red.	Alsike. Sweet.
First cutting	1.5	11.0	11.0
Second cutting	1.4	2	1.5
Third cutting	2.9	4.0	2.5
Fourth cutting	4.6	1.7	3.0
Fifth cutting	2.0	3.4	1.9
Sixth cutting	1.6	1.1	—
Total	26.0	21.4	20.3

The results show that, with one exception, in the average of the two years the common red surpassed the sweet clover in yield of pasture crop per acre at each of the cuttings. In the total amount of pasture per acre per annum the common red clover surpassed the sweet clover by fully five tons or by about 25 per cent., and the alsike surpassed the sweet clover by about one-half ton.

Interesting experiments are in progress at the Ontario Agricultural College at the present time. In one section of the trial grounds an acre is devoted to a careful examination of sweet clover of seven different specimens, the seed of which was obtained from five countries in Europe, Asia, American Union, from four localities in Ontario, and from three Ontario seedsmen. There is a marked variation in the plants growing from the seed obtained from different sources and selections. The most of the strains produce coarse stems with small scattering leaves, but the plants grown from seed obtained from Spain, and from Tompkins County, New York State, have a decidedly prominent leaf development and appear to be quite superior to the ordinary strains of sweet clover. We expect to continue the selection work in the hope of obtaining a more desirable type of plant and possibly one which will be more appetizing to farm animals than the ordinary wild sweet clover, and which will have fewer of the other objectionable features as well.

Some Factors of Success

- S**OME good brood sows.
- A** FEEDING of balanced rations.
- A** cow-teesting association.
- A** farm accounting system.
- S**hade trees for live stock.
- A** knowledge of judging live stock.
- A** silo.
- A** live farmers' club.
- A** subscription to Farm and Dairy.



A Beautiful Farm Home in Perth Co., Ont.

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Preserves Roads
Prevents Dust

Seven Miles of Tarvia

One of the most attractive roads in the entire Dominion is the first seven miles of highway from Sherbrooke, Que., to Derby Line, Vt., built by the Provincial Government of Quebec.

It is a Tarvia Road. That is, instead of being made of plain, old-fashioned macadam which wears out rapidly under automobile traffic, it is bonded with Tarvia, which makes it automobile-proof, dustless and mudless.

The road-surface does not grind away under the action of the automobile wheels, but is merely rolled down smoother and firmer all the time.

It costs the Province a little more to build this road with Tarvia, but it will cost less in the end because

in spite of the heavy through-traffic of automobiles the road remains in ideal condition year after year.

The Tarvia makes the road frost-proof as well as automobile-proof. That distressing period in the spring, "when the frost is coming out of the ground," ruins ordinary macadam, but has no effect on Tarvia.

The more roads a community builds with Tarvia, the more money it has to spend on extensions of good roads, because the road money is not used up in incessant but unavailing maintenance expenses on the old roads.

Illustrated booklets on Tarvia will be sent free on request.

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130-Egg Incubator and Brooder Both \$14.50

If ordered together we send both machines for only \$14.50 and we pay all freight and duty charges to any R. R. station in Canada. Orders shipped from Winnipeg, Man. and Toronto, Ont.

Hot water, double walls, dead-air space below, R. R. station, (11) doors, copper tanks and boilers, self-regulating, double glass panes, 30-day trial. Incubators finished in Colonial style. Nursery under French Hedges. Specialties in natural colors. Shipping the highest grade. **WISCONSIN INCUBATOR CO., Box 224, Racine, Wis., U. S. A.**

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Not a Runt in the Lot because they've been fed on GARDINER'S PIG MEAL

from the day they were weaned. Gardiner's Pig Meal with skim or separated mother's milk. It suits the digestion of the little pigs, and carries them over the stage without a hitch in their growth.

That's what makes hog profitable. Gardiner's Pig Meal is put up in 25-lb. bags. If your dealer hasn't it, write us for price—who for information about Gardiner's Call Meal, Sec-a-Fat, Ovarum and Ontario Peders' Swine Seed Meal.

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FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY



47

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We guarantee that every advertiser in this issue is reliable. We 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 with you or our readers in advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue. It is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is in a contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

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

The Rural Publishing Company, Ltd.,
PETERBORO AND TORONTO

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

High School Boys for the Farm

A YEAR ago this spring there was much talk of cutting short the school year and allowing high school boys of sixteen years or over to help on the farms. Talk was the chief product of the movement. A few boys did go out to farms for the summer and gave excellent satisfaction. Others went first of real work and returned home. The practical results of this promising movement were negligible.

It is to be hoped that the talk of a similar movement this year will not end in talk. The need is greater than it was a year ago. Rural recruiting and the enticing wages offered by munition manufacturers, have still further depleted the ranks of rural labor. Two hundred acre farms in Ontario have just one man on them—the proprietor himself. Even the 100-acre farmer without help can work his land to only partial capacity. In such cases an intelligent willing boy would be of great assistance.

There are few Canadian boys even in towns who could not drive a team and adjust themselves readily to farm work—if they were to go to the country inspired with the right ideal of service and determined to make their efforts really count for something in keeping up agricultural production. In mobilizing these boys and in giving them the correct viewpoint, the various branches of the Young Men's Christian Association can do a great work.

Our Duty to the Boys

THE success of any movement to place high school boys on the farm will depend in large measure on the treatment these boys receive at the hands of their employers. We should not expect too much of them. The town-reared lad does not get the same training and hard work that makes his country cousin of similar age the equal of a good hired man. He is unacquainted

with the details of farm management, which are as simple as a, b, c, to even the poorest farm worker. These high school boys will need much guidance, and it must be tactful guidance, for in spirit they are not hirelings.

These boys, too, are at a critical stage in their physical development. They are growing lads just sprouting into manhood. They require long hours of sleep and lots of nutritious food; yes, more than is required by a fully developed man. If the boy receives such consideration as he requires, his physical development will be accelerated by his months on the farm and should the war continue another year and the labor situation remain as it is, the boys will be glad to come out and help us another season and bring their chums along with them.

Labor, East and West

MR. R. B. Bennett, Director of National Service, speaking before the Regina Legislature recently, left his audience with the belief that there are now "sufficient men in the field to drive the Huns back to Berlin," and that the chief duty of Canada now was to maintain its agricultural production. When a report of Mr. Bennett's address reached the East, there was consternation in recruiting circles. In an attempt to explain away Mr. Bennett's statement, Mr. Justice Hodgins, of Toronto, a few days later, intimated that Mr. Bennett's speech was made in Saskatchewan, and was intended only for the Western provinces, where "men are just as urgently needed to produce foodstuffs as they are to drive the Germans back across the line." He added, however, that fighting men are still needed from Ontario and other Eastern provinces, and that Mr. Bennett's remark should not apply to the East.

But why make any distinction between East and West? The labor problem in Ontario and further east is surely serious enough to merit the careful consideration of every far-seeing statesman. Among the readers of Farm and Dairy are many who have 200 acre farms, which, apparently, they will have to work with their own unaided efforts. Nowhere have we heard of a surplus of labor. In all truth food production was short enough last year, but if all signs hold good, it will be still shorter next year. East and West labor conditions are the same. Men are not to be had. It is a situation that offers a fertile field for the application of the best efforts of the National Service Department.

Four Dollar Potatoes

POTATOES are four dollars a bag! Robbery! Consumers are in fits over it! Their clamor has gone abroad. It has caused a quaking and a great fear in the hearts of politicians. Investigations have been ordered. The Departments of Trade and Commerce are no more ready than the Departments of Agriculture in the eagerness with which they make haste to ascertain whether or not the farmer is making undue profits out of his potato crop, and to consider the advisability of imposing an embargo. It would seem that the farmer has no one to champion his interests when the consuming public become generally discontented.

Four dollars a bag is a high price for potatoes. Thousands of farmers have good cause to know it. They are buying potatoes at that price or near that price to feed themselves, their families, their hired men and for seeding purposes as well. Even those farmers who are fortunate enough to have potatoes for sale, harvested a crop that was away below normal, and the great bulk of it was not sold for four dollars a bag; two dollars a bag would be the average price received by the farmer for his 1916 crop. That is, the Ontario farmer, Maritime and Western farmers received consider-

ably less than that figure. But even if four dollars a bag for potatoes had gone along with a normal crop, the potato grower's returns would look small indeed to the large crop of munitions' millionaires that we have been developing for the past three years. One case has come to our attention of a small manufacturer who made \$35,000 clear profit last year and his partner an equal amount out of munitions, although their entire investment in time and equipment was not equal to the investment in a good 100 acre farm, the government supplying the munitions machinery and actually extending the plant at public expense when extensions seemed necessary. And yet this manufacturer was only one of the small fry.

Four dollars for potatoes indeed! Let public attention in Canada be directed first to that growing class who toil not and reap often and plentifully and last to the hard working farmer who has borne the burden of urban development since Confederation until now.

Our Opportunity—Our Duty

THIS coming season the farmers of Canada will serve their country and humanity at large as never before. The world-wide scarcity of foodstuffs, so noticeable in 1915, will be aggravated in 1917. Prof. Leacock, of McGill University was the first man in Canada to give real publicity to the fact that there is danger of an actual food shortage in the world. English papers lately have been featuring food statistics along with the latest war news. The French Parliament has issued a solemn warning to the world that enough food will not be produced in 1917; and they have detailed statistics to back their declaration. Latest reports from Petrograd indicate that even in the Russian Empire the food situation is causing uneasiness. While it is true that the food situation in Entente countries is not anything like as serious as it is in Germany or Austria, it may nevertheless become so acute as to interfere with vigorous military effort.

This situation is Canada's opportunity for service. Britain will do all that she can to produce foodstuffs, but for this year at least, her efforts must fall far short of the requirements of her population. France will reap the fruits of her policy of preserving on the land an independent land owning population of peasant farmers, but she too will need outside food, lots of it. Canada is the nearest source of supply. It would seem, therefore, that food production is our first duty, and in our endeavor to live up to our opportunity for service, we farmers should have the support and sympathy of every class in the community. For food production this year is more than the farmer's business; it is national business.

Notes and Views

GOOD seed corn is scarce. Is your order in? Price increases are the rule. Sometimes the war is the reason, many times it is only the excuse.

The privacy of the rural phone is an end much to be desired. Ontario's Attorney-General may scatter his twenty-five dollar fine right and left with the assurance that his victims (?) will not be regarded as martyrs among their long-suffering neighbors.

The farm trained boy or girl can do much to aid in crop production. In order that the aid they can give will not interfere with their schooling it has been suggested that the usual mid-summer holidays be divided between seeding and harvest, and that examination dates be changed accordingly. Such a course might be advisable with children of twelve years or over, but school routine during the hottest months of summer would be injurious to younger children.

Margarine Handled Without Gloves

The Forces Behind the Agitation Exposed and by a City Newspaper at That

THE following is an editorial which appeared recently in the Edmonton Bulletin:

"At the present time imitation butter or oleomargarine is prohibited from being made or brought into Canada. From time to time the public are informed by means of well written articles which appear at the same time in western newspapers, as well as eastern Canadian newspapers, as to the high cost of living as a test, the argument is put forward that permission to make and sell oleomargarine would be in the public interest, and especially in that of the poor man. The well organized campaign to secure the removal of the prohibition of oleomargarine in Canada is very plain.

"The preparation and distribution of adulterated food is recognized as one of the least 'get-rich-quick' schemes known to the world of 'big business.' Adulterated food is chiefly bought by the poorer people, and, therefore, protective regulations need not be lived up to as they must be in the case of pure foods which are bought by rich as well as poor.

"The plea for oleomargarine that its price brings it within reach of the poorer people, does not hold good for two reasons. First, the oleo, does not contain the same food elements as butter, and therefore the consumer does not really get what he believes he is paying for. Second, oleo, by reason of the many combinations, that can be formed under that name and given an attractive appearance, offers extraordinary opportunity for the inclusion of actually harmful ingredients, in spite of government regulation and inspection. So that the poor man, instead of getting better value for the money that he pays, gets less actual value for food purposes, and in addition takes chances on the food as he pays for, contributing to disease instead of maintaining health, which is the chief purpose of the use of butter.

Poor Materials—Big Profits.

"There can be no argument on the point that the facility with which inferior materials can be worked up into oleomargarine is the great attraction towards investment in its manufacture, and the prime cause of the campaign in its favor. That it can be made more cheaply than butter is now being sold is undoubted. But it does not at all follow that if it were made the philanthropists engaged in the making would sell it at a price proportioned to the cost of materials and manufacture. If that were the intention there would be no money available to carry on the expensive publicity campaign now in progress. It is the extra profit that is the attraction. That is, the difference between cost of making and price to be realized is expected to be greater than in the case of pure butter. While the materials used would be the cheapest possible the price would follow that of pure butter. It would rise and fall not according to the supply of material and demand for the product, but according to the supply and demand of pure butter. The producer of the oleo, not the consumer, would get the difference between the cost of production of butter and of oleo.

"There is another feature of the case that renders the production of oleo very attractive as a 'new business' proposition. The fortunes of standing between producer and consumer, are in a position to take toll from both by alternately lowering and raising market prices. Butter is a product which by reason of its nature and the conditions under which it is produced is subject to wide fluctuations in market value. If these nat-

ural fluctuations can be directed or regulated by the efforts of those engaged in the trade they stand to make big money. The great virtue of oleomargarine is that it can be used most effectively in producing artificial changes in the market for real butter. It is not governed by the same limitations as to season of production or difficulty in storing, and therefore is always available to push the market of producer or consumer up or down as will yield most profit to the manipulator. Needless to say, the value received by the poor man who must buy cheap or not at all, does not figure in the manipulation of the butter market by the producer of oleomargarine.

The Reason for Restrictions.

"The manufacture and importation of oleomargarine was prohibited by the Canadian Parliament years ago directly in the interest of the consumer of butter and indirectly in the interest of the producer. It was felt that the consumer had a right to be protected from spurious and impure foods and at the same time the dairy industry had a right to be protected against unfair or dishonest competition. It may be argued that this object could be attained by compelling all butter substitutes and adulterations to be marked and sold for what they really were. But the enormous cost and practical impossibility of efficiently enforcing such regulations led to the conclusion to simply prohibit the manufacture or importation of what was essentially a spurious article. This is the law that it is desired to remove from the statute book. It is not the first time by any means that the welfare of the poorer people has been made the excuse for their still more unmerciful exploitation by 'big business.'"

Preparing Corn Land

"Farmer," Halton Co., Ont.

"I N preparing for the corn crop I nearly always plow the ground in the fall and manure it well in the winter or spring, putting the manure in piles and spreading it in the spring. Then I plow it down and work the ground until I get a good seed bed, using a disc-harrow, cultivator and drag-harrow as regards this way. The grassy, I plow it again, but this seldom is necessary. I then sow the seed in rows about 30 inches apart, with a common hoe drill. When an occasional sprout begins to come up I harrow the crust to break the crust. When this crust is especially hard I harrow twice. The corn never seems to pull up when harrowing in this way. The corn always seems to come faster when I use the harrow.

"When the corn shows in rows I begin to cultivate it. I also go through it with a hoe and cut out any thistles or other weeds that appear. From this on I cultivate and hoe as often as I can. Generally I sow pumpkin in the corn, as they seem to do best there.

"I cut the corn as soon in the fall as it matures; before it gets touched with the frost if possible, but sometimes it gets frozen before it matures completely. I do not think that a light touch of frost hurts it materially, although it is better without it. As I have no silo I stook the corn in the field until it gets fit to haul it to the barn and I cut the corn in the winter with a cutting box and gasoline engine, as I need it. I find that the corn left outside makes the best feed when cut up and thaved out before feeding. Although I have no silo, I am a firm believer in them and intend to erect one soon. I prefer the stave silo.



Plan for a Silo NOW

while you have time to attend to it.

THE profits that you might have had this winter from a silo have gone beyond recall, but there is no reason why you should lose them again next winter.

Plan your silo now. Before you know it, the rush of spring and summer work will be on and if you let the matter drag along you may find when harvest-time comes around that you have not been able to get your silo ready.

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Your cows will give 25% more milk on a silage ration than on grain feed and you can feed them much more cheaply on silage than on grain. Without a good silo you cannot hope to make all the profit from your cows that you could make.

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OUR FARM HOMES



THE more we study, the more we discover our ignorance.
—Shelley.

Winning the Wilderness

(Continued from last week.)

OVER the door of his four-roomed cottage he put the name "Cloverdale," as he had put it over his soul cabin years before. And the Cloverdale Ranch, like the Sunflower Ranch further up the river, became a landmark on the trail.

Pryor Gaines, still the teacher-proclaimer of the Grass River settlement, had come to the Cloverdale Ranch on an errand, and he and Jim Shirley were chatting beside the well curb when Dr. Carey drove up.

"Hello, Carey. How did you scent chicken pie so far? And a plum pudding all brown and ready?" Shirley called hospitably.

"It's my business to find what produces sickness as well as to provide cures," Carey responded as he stepped from his buggy to tie his horses.

"Take him in the house, Pryor, while I stable his crowsalls," Jim said, patting one of the doctor's well groomed horses on the head.

"I hope you will stay, too," Horace Carey said to Pryor Gaines. "I have some important news for Shirley, and you and me are fast friends."

"Here's Jim now. And a plum pudding, chicken and plum pudding, Host Shirley."

Jim's skill as a cook had not decreased since the day when he prepared Asher Aydelot's wedding supper, and the three men sat together at that day's meal took large enjoyment in this quiet hour together.

"I have a letter for you, Shirley," the doctor said at last. "It was sent to me some months ago with the request that I give it to you when I had word to do so. I have had word. Here it is."

"I think I'll be going now," Pryor Gaines rose with the words.

"Don't go," Jim insisted. "I want you here."

So Gaines sat down. Shirley opened the letter and read it while the two friends busied themselves with a consideration of his bookcase.

Jim said nothing when he had finished, grateful that no painful silence on the part of the other two men forced him to words until he was ready to speak.

"Listen to me," he said at length. "I need your help now. When I came West life didn't seem worth living at first, but I had it on my hands and couldn't throw it away. I was ready to call time on myself one winter here when Carey brought me a letter. It was from Alice Leigh, my brother's wife. I thought I was related—by marriage. We had the same father, but not the same mother. My mother died the day I was born. Nobody else is so helpless as a man with a one-day-old baby. My father was fairly forced into a second marriage by my step-mother, Betsy Tank. She was the house-keeper at the tavern after my mother's death. She married the old Shirley House. It looked big

just six. She has been taught to love her uncle Jim. . . . Through the help of a friend here—she doesn't give the name—I have made you her guardian. I want her to go to your home. Her father will not take any responsibility, nor try to keep her. I know you will not fall me."

Jim folded the letter abruptly. "It is a dead woman's last wish. How can I make a home for a little girl? What shall I do?"

He looked at the two men for answer. The doctor lifted his hand to Pryor Gaines, and the preacher waited awhile before replying. Then he said thoughtfully:

"It is easy for us two to vote a duty on you, Shirley. I answer only because you ask, not because I would advise. From my angle of vision, this looks like your call to service. You lonely fireside is waiting for a little child's presence—the child already taught to love you. I would say send for her at once."

"But how can I send?" Jim questioned. "How can I do a parent's part by her? I can help a neighbor in need. I can't bring up his children. I'm not fit for that kind of work. I've hung on here for more than a dozen years to be ready to help when the time came, and now the thing seems impossible."

"As thy day, so shall thy strength be." If you have prepared yourself to do anything you can do it," Pryor Gaines assured him.

"Well, how can I send?" Jim asked again. "There's nobody here to bring her, and nobody here to go after her. It's an awfully long way



A Farm Home with a Glass Enclosed Porch.

A good sized verandah attached to the farm home is one of the favored spots during the summer months. It is a good idea, however, to have part of the verandah, at least, enclosed with window glass in the cold winter weather, as it aids materially in keeping the house warmer. The attractive home here shown, with porch attached, is owned by Mr. M. Nelson McInwail, Oxford Co., Ont.

whole settlement," Pryor Gaines said. "I won't bore you with details." Jim began again. "The letter I had from Alice Leigh, Tank's wife, a dozen or more years ago, asked me if I would take the guardianship of her children if they should need a guardian. I knew they would need one, if she were taken from earth, as she had reason to fear then that she might be soon. I began to live with a new motive—a sense that I was needed, a purpose to be ready to help her children—the one service I could give to her. There's a long, cruel story back of her marriage to Tank—a story of deception, coercion, love of money, and all the elements of common cussedness. And, as generally happens, when Tank married the girl who didn't want him he treated her as he's always treated everybody else.

Jim clinched his fists hard and shut his teeth with a grip as he sat silent for a moment. Then drawing a deep breath, as if he were lifting a weight from his life, he said calmly:

"Mrs. Shirley died some time ago. Only one child survived her—a little girl six years old. The letter says—"

The letter fluttered in Jim's trembling hands. "It says, 'My little Leigh is

been true blue."

Horace Carey answered with a smile. "But the little girl, what's her name? Leigh? We'll have her here for you. Your service is only beginning, but think of the comfort of such a service. I envy you, Jim."

"A little child shall lead them," Pryor Gaines added reverently.

Then they fell to talking of the coming of little Leigh Shirley. The hours of the day slipped by. The while these childless men planned together for the welfare of one motherless, and worse than motherless, little girl away in the Clover Creek Valley in Ohio, waiting for a home and guardianship and love under far Kansas skies.

CHAPTER X.

The Coming of Love.

The Ohio woods were gorgeous with the October coloring. The oak in regal purple stood outlined against the beech in cloth-of-gold, while green-tinted hickory and elm, and iridescent silver and scarlet, furnished a flaming mantle adorned to the kaleidoscope of splendor.

The old National pike road leading down to Cloverdale was well flanked by little rail-fenced fields that were bordered by deep woodlands. The old Aydelot farmhouse was as neat and white, with gardens and flower beds as well kept as the one that had passed since the master and mistress thereof had gone out to their last earthly home in the Cloverdale graveyard.

Fifteen years marked little appreciable change in the heritage given up by Asher Aydelot out of his love for a girl and his dream of a larger opportunity in the new West. For fifteen springtimes the old-fashioned sweet pinks had blossomed on the two mounds where his last service had been given to his native estate. Hardly a tree had been cut in the Aydelot woods. The marshes in the lower ground had not been drained. The only change in the landscape was the high grade of the railroad that cut a triangle from the northwest corner of the farm in its haste to reach Cloverdale and be done with it.

The afternoon train on the Cloverdale branch was late getting into town, but the station parasites were rewarded for their patience by the sight of a stranger following the usual two or three passengers who alighted. Strangers were not so common in Cloverdale that anyone's face would be forgotten under ten years of time.

"That's that same fellow that came here ten years or more ago, two or three ago. I'd know him in Guinea," one of the oldest station parasites declared.

"That's him, sure as shootin'," his comrade-in-laziness agreed. "A doctor, don't you recollect? Name's Corries, no, Craney, no, that's not it neither—A-ah!" trying hard to think a little.

"Carey. Don't you remember?" the first speaker broke. "Doc Carey?" They said he doctor'd Miss Jane in Philadelphia, an' got in good with her, more'n a dozen years ago."

"Well," drawled the second watcher of affairs, "if he thinks he can get anything out'n o'er her by hangin' round Cloverdale, let's barkin' up the wrong saplin', Miss Jane, she's close, an' too set in her ways now. She must be long forty."

"That's right. But, I'll bet he's gone there now. Let's see."

The two moved to the end of the station, from which strategic point both the main street, the National pike road, of course, and the new street running "cat-cornered" from the station to the creek bridge could be commanded, riddled, or named.

"Darned fool! Is what he'll ink in! straight as a plumb line for the creek. If he was worth it, I'd feller him."

(Continued on pag. 19.)

"You are right, Shirley," Pryor Gaines spoke softly still. "Unless you were close to the life in its last days, don't hang any graves like dead weights of inefficient sorrow about your neck. Look back to the best memories. Look up to the eternal joy no grave can withhold."

There was a sympathetic chord in Pryor Gaines' voice that spoke home to the heart, and so long as he lived in the Grass River valley, he gave the last service for everyone who left it for the larger life beyond it.

"I will do for you, Shirley," Horace Carey said. "You forget who brought you this letter. That it was sent to me for you, and that the time to give it to you was left until I was notified. This friend of your brother's wife is a friend of mine. Let me go."

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THE UPWARD LOOK

"God's Voice"

SEND out Thy light, and Thy truth; let them lead me— I ain't blind: 3. In our quiet time with God, more of it should be given to reading His book, with a receptive mind and heart, and in simply listening to His voice. If too much of the time is spent in our talking to Him, when will we receive as clear and vivid an explanation of His wishes for us at this time of closest communion with Him?

Confidently we may wait for a word of guidance in that matter that is perplexing us so sorely. Trustfully we may claim the comfort that is promised for the hour of deepest sorrows. Gratefully will we receive the peace that in this hour enters our hearts. Not only at this time does His voice of guidance reach us, but always it comes when it is most needed.

Once I was very anxious to carry out a certain project which needed my mother's cooperation. To my surprise she refused, saying simply: "God has not yet pointed out that He wishes us to take that course." So alone I continued the work. Then one day, from a source which we never could have anticipated, came the clear, not-to-be-mistaken direction, which rendered all my anxious planning useless.

One morning at dim daybreak an officer saw dark figures of soldiers leaving the trench for a nearby woods. Next morning he caught two of them and demanded an explanation. It was that they had gone there to hear clearly the song of the birds, which they could hear but faintly from the trenches.

So wherever or whenever it may be, in the quiet hour alone or in the busy hurried moment, may we listen faithfully and especially for His clear voice, giving us peace and joy and inspiration.—I. H. N.

The Ideal Home Economics Society

THE Home Economics Societies of Manitoba are similar to our Women's Institute branches in Ontario and it is interesting to note their progress and the good work that they are doing. A recent report shows that at present their membership is 3,281 members and their total receipts for 1916 were \$21,232.50, as compared with a membership of 2,324 and total receipts of \$8,268.62, in 1915. The annual convention of the Home Economics Societies was held in Winnipeg last month, and herewith appears an extract from an excellent address on "The Ideal Economics Society" delivered before the delegates by Mrs. G. T. Armstrong, of Manitou, Man.

The Ideal Home Economics Society is not wholly and entirely absorbed in studying serious questions. If it were any other kind of a society for very long. On no account ought the social side of our work to be neglected. If it is, the practical or what appears to be the practical side, will not progress as it might, if indeed it goes on at all. There is no doubt that some societies have died because their social side was not thought of. If any society will endure, before all else it is necessary that it hold fast to a little diversion of some sort. No matter how interesting the programme, nor how cleverly handled, the meetings to which we come and simply sit and listen, then get up and go home are not

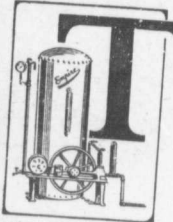
so attractive, nor so satisfactory, nor so likely to continue as those that provide for some social intercourse.

A specified time ought to be set on every day's programme for sociability. This may be done by having a shorting the afternoon with a cup of tea, will not open her lips in a meeting, has no hesitation in saying, "Have some tea!" or "Do you take sugar?" These common-places which amount to nothing in themselves, almost invariably lead to real conversation, exchanging of opinions, and suggestions that would never come to light otherwise. The woman who begins by bringing a cake goes on to give a paper, or talk on some subject that perhaps you had no idea she knew our real social life must grow out of our work, and equally true that some of the best suggestions for work would never be made except at a social gathering under the inspiring influence of a free, informal conversation.

Now here let us note that an ideal Home Economics Society will make use of all available material. Don't forget the young girl who has just finishing high school. Often she is enthusiastic over with information and run errands and pass refreshments. She can sing or play or recite and she can prepare an essay or read one she wrote at school. She can teach us the good many things and revive in our minds our daily work we have forgotten. It will do the girl good too. If she does not work we have forgotten. It will do the girl good too. If she does not work we have forgotten. It will do the girl good too.

At every meeting there must, of course, be something definite for us to consider. This will necessarily be some matter of common interest and in all probability some phase of household work. You say "Don't talk of work, sometimes; but we are all interested in ways of improving and making easier the work we have to do. Our

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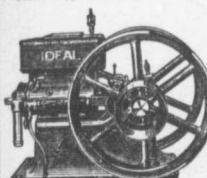


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work is the commonest thing we have in common and the more quickly and easily we do it, the more time and heart we have for reading and other recreation. One reason that our young girls are leaving our rural districts is that they do not want to work as hard as their mothers have done. Very natural. We must find some way out. It rests largely with rural communities to preserve our national characteristics. "Princes and lords may flourish or may fade: A breath can make them as a breath can make; But a bold peasantry their country's pride, When once destroyed can never be supplied." So we may profitably study methods of working and give and receive suggestions regarding labor-saving devices. However, there is not much danger that we shall confine ourselves to these matters. No body of women will gather these days and discuss domestic duties alone. There is too much else in the air. Many new opportunities of service are opening up to us, but in grasping them let us not lose our hold of the equally important old ones that have always been ours.

HOME CLUB

"Dot" Talks Things Over

ALTHOUGH I have been silent for so long I have never lost interest in "Our Folks" or our Home Club corner, and have often wished we could draw our chairs closer and talk things over together. I was much interested in the discussion lately on the old, old question of how much money a young man should have before asking a girl to marry him. Even though the discussion is over, being one of the oldest members of the club, I venture to add my humble opinion.

Being a bit Scotch and a great admirer of Burns, I have always held that his pen picture of the Cottar's Saturday night was ideal. It was a case of plain living and high thinking. Stone walls do not a prison make nor from bars a cage; neither do fine buildings and furnishings make a home. No amount of money could spin a home like that of the Cottar; neither could the lack of it. When that spirit of which Burns speaks pervades a home, money does not matter—there will always be enough.

Today, in our strenuous modern life, however, some capital is needed to keep that spirit of plain living and high thinking alive in the cultivated. No girl should accept the responsibility of founding the home of her dreams without positive assurance that her strength, mentally and physically, are to be sacrificed to gain an independence. Many a wife has helped her husband to gain wealth who never knew what real independence meant, because she does her lot on the rugged way. We all know of homes where even if prosperity greets you on every hand you feel that the family is handicapped so far as the social side of their life is concerned. The home is the most important school in our nation to-day and the mother the most important teacher. I think it was a woman who said: "The heart of the home is order, the blessing of the home is contentment, the glory of the home is hospitality, and the crown of the home is godliness."

I also followed the discussions in the Home Club on books with interest. How can a long winter evening be better whiled away than by reading a good book aloud in a club or in a family. I have lately been reading

Sir Gilbert Parker's "Seats of the Mighty" Winston Churchill's "Inside of the Cup" and Hall Caine's "White Prophet." All were fascinating to me. They lead one out of the prescribed way of thinking into more individual lines of thought, and when we think for ourselves we understand.

There is something else I have had on my mind for a long time, and that is to say a word in appreciation of our very valuable contributors, "I. H. N." No one has expressed themselves before that I know of, but I for one feel that we are very, very much indebted to "I. H. N." for the uplifting letters that we were. What a timely New Year's message and warning was given us. An old friend of mine used to say when the "outlook" is not grey days what helps so much as an upward look? I followed "I. H. N.'s" travel talks of last summer with very great interest. I have been and felt the same thrills and feelings of reverential awe as I looked on the majestic mountains and restless sea. If my letter will not be too long I will append a little inspiration that came to me as I sat spell-bound watching the last rays of the setting sun fade over the broad Pacific.

The glorious sunset glids the ocean's breast;
Its golden fingers beckon us to rest;
The lengthening shadows fold away our cares,
And peaceful is the face all nature wears.
We prove the promise gazing on the sight,
"At eventide it shall be light."

The Orientals from their sunrise home
On mighty vessels hurrying to us come;
This is the port they seek, this is the scene,
And they will learn to love it, too, I ween.
When we have taught them how to read aright,
"At eventide it shall be light."

The fisherman for home has sailed away;
The song-bird twitters of departing day;
The snow-capped hills-top round about us rise
A soft wave laps our feet and robes and sighs.
O'ercome with awe we rise and say good-night,
Filled with one thought, "At eventide it shall be light."
—"DOT"

Using Potatoes Economically

WEB hear much nowadays about the scarcity of potatoes and we are urged on all sides to use them as economically as possible. The following advice issued in the form of a circular by the British Board of Agriculture and Fisheries may prove of value:

(1) In cooking for the table potatoes should be boiled or steamed in their jackets—this will reduce the loss to a minimum. To facilitate the escape of steam and prevent the cooked potatoes from becoming "stodgy," it is useful to make a cut in the skin of the tubers at each end.

(2) In baking potatoes slow cooking is desirable, so that the skin does not "bake" on to the "flesh," and so cause loss. The skin should be pricked or cut before baking to permit the escape of steam. Proper baking of potatoes involves little, if any, greater loss than boiling in their jackets.

(3) If because of injuries to the surface, or for any other reason, potatoes must be pared, they should be cooked by steaming, or by cooking in the smallest possible quantity of water,



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which should be boiling when the potatoes are put in. The water should be used as a basis for soups, for which it is quite suitable. The loss in boiling is reduced if salt is added to the water.

(4) A better plan even than that last mentioned is to pare the potatoes as thinly as possible and use them, after slicing, for vegetable or meat pies, with or without a pastry crust. Potatoes should also be pared very thinly when used for soups.

(5) Where a bulky vegetable food is required the potato may usefully be replaced by turnips, especially Swedes, which should be sliced and steamed rather than boiled. If boiled, the minimum of water should be used, and the liquid should afterwards be made into soup.

Orange Marmalade Season

"Aunt Fanny," Peterboro Co., Ont.

By the time March rolls around, the majority of us will have taken note of the fact that our fruit shelves which were heavily laden in the fall, are becoming seriously depleted. Perhaps also the members of the family have become slightly tired of the fruits we have on hand and long for a change. Suddenly the thought comes to us, "This is orange marmalade month," and we immediately make preparations to take advantage of the special sales of stores are featuring.

There are several points about orange marmalade making which I have found it wise to observe. A necessary precaution in the final boiling is to watch that the mixture does not stick to the bottom and burn or boil over. Removing the scum thoroughly and testing for jelly frequently, are also important points. It is my aim to have the marmalade of a transparent yellow color and of good jelly consistency.

I have made marmalade in several different ways, sometimes with oranges alone, with oranges and lemons or a mixture of oranges, lemons and grape fruit. I am sending along several recipes which are very good, but I believe I favor the one made with oranges and lemons.

Get good bitter oranges, peel off the rind as thin as possible in long strips with sharp knife, then remove the white part. Cut yellow part into thin shreds and white part in small pieces. Cut up pulp rather fine; save pips and pour water over them. For every pint of cut up rind and pulp, add two and one-half pints of cold water. Let stand over night and the next day add the liquid from the pips, put on the stove, boil quickly for three-quarters of an hour then remove from stove. The next day weigh the boiled liquid and for every pound add one and one-quarter pounds granulated sugar. Boil until it jellies.

Use in proportions of one grape fruit, one orange and one lemon. Measure fruit and to it add three times its bulk in water. Let stand over night. Next morning boil 10 minutes. Cover tightly and let stand again over night. Boil 10 minutes next morning and to each pint of fruit add a pint of granulated sugar and boil until it jellies, stirring as little as possible.

Take 12 sweet oranges (bitter ones may be used if preferred) and four lemons. To this add 21 cups of water and let stand for 36 hours. Place on stove and allow it to boil from one and a half to two hours, so as to become a little thick before adding sugar. Then add one cup of sugar to each cup of the liquid. Do not allow it to boil long after the sugar has been added, just until it begins to jelly.

Winning the Wilderness

(Continued from page 16.)

"Oh, the arsey pup will be back all right. Lazy fellers watin' to marry rich old maids ain't worth follerin'."

Dara sm't: "Slick skeezicks, tryin' to git rich jes' dolt' noblin'."

So the two citizens agreed while they consigned a perfect stranger to a mild purgatory.

Dr. Carey walked away with springing step. He was glad to be at his journey's end; glad to be off the slow little train, and glad to see again the October woods of the Allegheny foothills. When he had cleared the creek valley, his pace slackened. Something of the old boyhood joy of living something of the sorrowful-sweet memory, the tender grace of a day that is dead, but will never be forgotten, came with the peace and autumn mood of Nature to make the day sweet to the pensive mind.

Jane Aydelot sat on the veranda of the Aydelot house, looking eagerly toward Cloverdale, when she discovered Dr. Carey coming leisurely up the road. She was nearly forty years old, as the railroad station loafers had declared, but there was nothing about her to indicate the "old maid, set in her ways." She might have passed for Asher's sister, for she had a certain erect bearing and strong resemblance of feature. All single women were called old maids at twenty-five in those days. Else this fair-faced woman with clear gray eyes and pink cheeks, and scarce a hint of white in her abundant brown hair, would not have been considered in the then ridiculed class. There was a mixture of resoluteness and of timidity in the expression of her face, betokening a character at once determined of will but shrinking in action. And withal, like her natty and well-kept farm and home.

As Dr. Carey passed up the flower-bordered walk, she arose to greet him. If there was a look of glad expectancy in her eyes, the doctor did not notice it, for the whole setting of the scene was peacefully lovely, and the fresh-cheeked, white-handed woman was a joy to see. Some quick remembrance of the brown-handed claim holders' wives crossed his mind at that instant, and like a cruel stab to his memory came unbidden the picture of Virginia Thaine in her dainty girlishness in the old mansion house of the years now dead. Was he to blame that the contrast between Asher Aydelot's wife, now of Kansas, and Jane Aydelot of Ohio should throw the favor toward the latter, that he should long for the moment what the women of the frontier must sacrifice in the winning of the wilderness?

"I am glad to see you again, doctor," Jane Aydelot said in cordial greeting.

"This is a very great pleasure to me, I assure you, Miss Aydelot," Horace Carey replied, grasping her hand.

Inside the house everything was as well appointed as the outside suggested. As the doctor was making himself more presentable after his long journey, he realized that the pretty, old-fashioned bedroom had evidently been a boy's room once, Asher Aydelot's room. And with a woman's lover's consent, neither Asher's mother nor the present owner had changed it at all. The petals of a pink rose of the wallpaper by the old-styled dresser were written over in a boyish hand and the doctor read the names of "Jim and Alice," and "Asher and Nell."

"Old sweethearts of the Kerry Dancing days," he thought to himself. From the open window he looked out upon the magnificence of the autumn forests and saw the white plike road leading down to Clover Creek and the church spire and court house tower above the trees.

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beauty gave it up because he didn't want to be a tavern-keeper here, and because he did want a girl—Virginia. Horace Carey said the name softly. "I remember what her jessamine-draped window looked out upon. I hardly realized when I was here before what Asher's early home had been. Yet those two for lives of each other are building their lives into the life of their chosen State. It is the tiler of the soil who must make the West. But how many times in the lonely days in that little sod cabin must they have remembered their childhood homes! How many times when the hot fall winds swept across the dead brown prairie have their memories turned to the beauty of the October days here in the East! Oh, the heroes weren't all killed at wellington and Bunker Hill, nor at Lexington and Gettysburg. Some of them got away, and with heroic lives went out to conquer the plains from the harsh rule of the Indians here.

When the doctor went downstairs again, a little girl met him, saying, "Miss Jane says you may sit in the parlor, or out on the meranda, till supper is ready." "How pleasant! Won't you come and sit with me!" Doctor Carey replied. "I must put the—the lap-robes on the tables to everybody's plate, and the knives and forks and spoons. Now I'll come," she answered.

Carey sat on the veranda enjoying the minutes and waiting for the little girl.

"What is your name?" he asked when she appeared, and climbed into Miss Jane's vacant chair.

"Leigh Shirley. What's yours?" "Horace Carey."

The doctor could not keep from smiling as he looked at her. She was so little and pretty, with yellow hair, big blue eyes, china-doll cheeks, and with all the repose of manner that only childhood and innocence can bestow.

"I think I like you, Horace," Leigh said frankly, after carefully looking Carey over.

"Then, we'll be friends," he declared.

"Not for so very long," Leigh could not master the Y of the alphabet yet. "Cause I'm going away pretty soon, Miss Jane says. You know my mamma's dead." The little face was very grave now. "And my Uncle Jim out in Kansas wants me. I'm going to him."

Even in her innocence, Doctor Carey noted the very definite tone and clear trend of the young maiden.

"Miss Jane loves me and I love her," Leigh explained fervently. "Don't you love Miss Jane, Horace?"

"Certainly," Carey said, with some hesitancy.

"I'll tell her so. She will love you, too. She is very sweet," Leigh assured him. "Where are you going to?"

"I'm going back to Kansas soon."

"I should like to. Let's go to gether."

Leigh slid quickly from the chair and ran inside, where Doctor Carey heard her clear childish voice say, "I'm going back to Kansas, too, Miss Jane. He says he loves you. His name is Horace, and he's very nice."

He's not very pretty, though, but you love him, too, don't you, Miss Jane?"

Evidently the child was close to something like a kiss and low words that seemed to send her away on some errand. Presently he caught the light of a sunny head and two big blue eyes as Leigh peeped around the corner of the house.

"Miss Jane says I mustn't talk too much and mustn't call you Horace, but just Doctor Carey. Won't you

come with me to get flowers for supper?"

The two strolled together into the old flower garden where verbenas and phlox and late asters and early chrysanthemums and a few month-roses

under Miss Jane's careful covering had weathered the first frosts. Leigh knew each plant and shrub, and gave out information freely.

"Would you rather stay with 'Miss Jane'?"

Doctor Carey knew he should not ask the question, but it came anyhow. "Oh, no, I want to go to my Uncle Jim."

Leigh settled the matter once and for all.

That night Leigh fell asleep early, for Miss Jane was methodical with children. Then she and Doctor Carey sat until late by the open wood fire and talked of many things, but first of Leigh and her future.

"You will miss her, I'm sure," the doctor said.

"More than anyone will know," Miss Jane replied. "But I could not be happy without fulfilling my promise. I wrote you to come soon because each day makes the time up a little harder for me. But I must know the truth about this Uncle Jim. I cannot send Leigh out of my house to be neglected and unloved. She demands love above all things."

The pink color deepened in Miss Jane's fair cheek as she recalled what Leigh had said to Doctor Carey about loving her. The doctor remembered also, and knew why she blushed. Yet blushed, he thought, were becoming to her.

"I'll tell you all I know of Mr. Shirley. We have been friends for many years," she said.

Then as truthfully as possible he told her of the life and mind of the lonely loving plainman. When he had finished, Miss Jane sat awhile in silent thought.

"It is right that you should know something of conditions here, Doctor," she said at last. "The older Shirleys are dead. Tank's life has been the end for them. The Clover-herd and as I have owned the Shirley House for several years, I came to know them well, and I do not think the gossips were far out of the way."

"What of Tank's life?" Doctor Carey asked. "I have some personal reasons for asking."

Miss Jane looked up quickly. She was a pretty woman and a keenly intelligent one as well. To Horace Carey, she seemed most charming at that moment.

"Let me tell you of Alice first," she said. "You know of courses, that she loved Jim. They were just suited to each other. But her mother and the other mother planned otherwise. Tank's mother planned otherwise. Alice was submissive. Tank was greedy. He wanted the old leased farm. And envious. It grew to be to hate Jim always. It grew to be the passion of his life to want to take whatever Jim had. His mother hated the farm first, and the downfall of Jim second. They took no account of Alice, who must be the greatest loser. And after they were married, her mother-in-law were disappointed, for she and the Shirley House fell into Uncle Francis Aylet's hands in the same fall, and the Shirley House fell into the same way. Love of property can be the root of much misery."

Miss Jane paused, for the story brought bitterness to her kindly soul.

(Continued Next Week.)

Grain vs. Straw or Fodder

THE primary object in the growing of cereals in Ontario is the production of a large yield of grain to the acre rather than a heavy tonnage of roughage. Hundreds and thousands of Ontario grain growers come far from reaching their goal in this line. The most familiar question and the one oftentimes asked of farmers' institute men, farm papers and agricultural authorities, undoubtedly is, "How can I increase my yield of grain?" Many farmers will say, "I have stalks enough to secure from 75 to 300 bushels of corn to the acre, but I get but 25 to 50 bushels." Others say they have straw enough for 40 to 50 bushels of wheat and get anywhere from 15 to 25 bushels. Under the present unusual conditions this is a problem that should receive the most careful attention of our grain growers this year. There are three plant foods usually

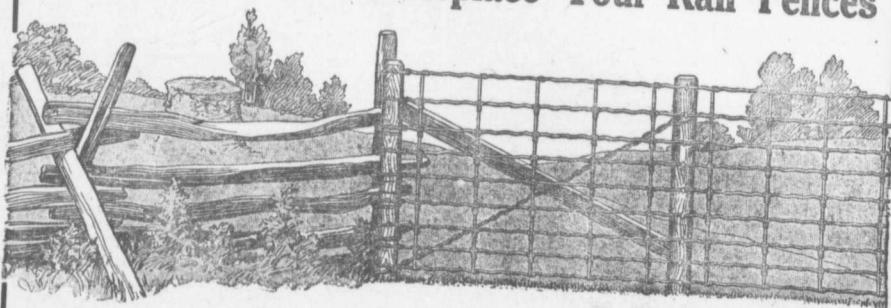
considered as most essential in the production of our crops, namely, nitrogen, sometimes called ammonia, which gives the plants a quick start and promotes stalk growth; phosphoric acid proves the quality and strengthens the straw and plumps the grain. Soils rich in humus usually are fairly well supplied with ammonia, though much of it may be in an unavailable form. Loam soils, especially peat and mucks, will be low in potash, while phosphoric acid is known to be most deficient on the great majority of our Ontario soils. This is the plant food that is sold off in the grain, the live stock and live stock products, the main source of the income of Ontario up to the present time. As the soil was normally deficient in this plant food in proportion to ammonia and potash, and Ontario farmers have been selling off this plant food, many soils are at

present very deficient in the available supply of this plant food. Every experiment station and thousands of farmers have demonstrated that this deficiency can be made up through the addition of phosphoric acid to the soil and crop. Every farmer can well afford this year to increase both his yield and improve the quality of his grain crops by using a fertilizer analyzing high in phosphoric acid—the grain producer. This should be applied at the rate of from 200 to 400 lbs. to the acre, either before or at the time that the corn is planted. Grain, not straw or fodder, is the source of income on our Ontario farms. A high percentage of phosphoric acid in the maturity and improves the yield, hastens practically all crops because it is this plant food, phosphoric acid, that is largely concerned with these three most important and essential factors. —J. W. Henceroth.

Dairy Cows Need Much Water

DAIRY farmers often fail to supply their cows enough water during fall and winter months. This is especially true of cows giving large amounts of milk. The Missouri Experiment Station has found that two dairy cows used only one-fourth to one-fifth as much water when dry as when in milk. One cow giving over 100 pounds of milk daily used as high as 2,601 pounds of water forced to suffer exposure to obtain a drink of icy water, as they will not drink enough to produce the milk they are capable of yielding under more favorable circumstances. Cows may be induced to drink more water if it resulting in a decrease in the yield of grain and an increased decrease in the proportion of grain to roughage.

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The Makers' Corner

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

All Would See the Benefit

I FAVOR cream grading and think that the average patron would do a favor such a move. For myself I would say I would be satisfied to leave the grading in the hands of the maker, as it seems to me to be about the only practicable way of having the grading done. If the system were carried out honestly, the patron supplying poor cream would likely be satisfied, but surely patrons enough would supply good cream would be found to be no great loss to a creamery to lose a patron who supplies bad cream. If the grading were by the vine-wide measure it would be the means of raising the standard of our dairy produce and I have no doubt that all would see the benefit of it after it had been working for a time. **DAIRYMAN.**

Grade on the Farm

I AM in favor of grading and think the average creamery patron would look on the adoption of grading with approval. I for one think it is the only square way of selling cream. Patrons would be satisfied to leave the grading in the hands of their butter maker, because a man doing business with the public does not go on the "crook" very long and stay in the business. The chief difficulty would be to get the cream to the factory in as good condition as when it left the farm, but this might be overcome by having a graduate of a dairy school haul the cream in an auto truck and grade it at the farmer's door.

If the creameryman could guarantee the farmer a good profit on the extra trouble he would have in producing first class cream, such as having his stables well ventilated, his cows in a cleanly condition and a proper cooling tank installed, I think there would be little trouble in getting the farmer's approval. The creamery should provide individual cans, two for each patron, so that as an empty one is taken away from the farm one is left in its place. The cream would then be at least as clean on arriving at the creamery as on leaving the farm. The tank system makes this impossible.

Whey Pasteurization Inexpensive

S. R. W. Hodgins, Quebec.

MANY owners of these factories stand aghast at the idea of having to install a plant for pasteurizing whey. They imagine that ruinous expenses will accrue. As a matter of fact the actual cost of installing a pasteurization system is not great, and we have found the cost of operating almost negligible.

At a factory of which I had charge the pasteurization was accomplished by heating the whey in the vat to the desired temperature with steam conveyed from the boiler to the whey vat by ordinary steam pipe, which extended far enough down in the vat to be always covered with whey. The outfit cost but a few dollars, which was repaid in a few days.

The steam used for pasteurization was that left after the curds and whey in the vats had been heated up during the process of cooking. Every cheese-maker knows that with a couple of large vats of curds which have to be cooked more or less quick-

ly, to insure having the curd sufficiently firm when the acidity reaches the proper stage, that a considerable head of steam must be maintained in the boiler. After the steam is turned off these vats, even if no further fires are added, the head always rises and in many cases is largely wasted by escaping through the safety valve. It is this "extra" steam which we conserve by turning it into the whey served by turning it into the whey vat immediately after the curd is cooked. This was usually enough to heat the whey to the pasteurizing temperature.

There are many chances to utilize a little steam for this work. Especially in the sultry weather in summer when the cheese works quickly do we when the cheese works quickly do we when the cheese works quickly do we. Perhaps it gets too high before we can turn it on to the milk in the morning, or while we are cutting the vat of curds. All this excess steam may be utilized if the discharge from the safety valve be connected with the pasteurization pipe. Every little helps.

Favors the Fat Plus Two Method

Arthur E. Fox, Oxford Co., Ont.

I S there not need of improvement in the milk sent to the factories? I think the evidence is conclusive. As it comes from the farmers themselves. At every cheese meeting or convention they are urged to take better care of the milk, and we lions are passed to the milk, and we need something more effective. It is hard for one man to do his part well while his neighbors are still in the rut. With this Act in force farmers will see the benefit of good care when it hits his pocket directly, as it will in this case. When milk is properly cooled the cream does not become so leathery, is more easily stirred into the milk, and the result is a better test, as the sample is taken from the centre of the can. Therefore, in trying to get a better test we receive a double benefit.

The cheesemaker gets more cheese from milk that is properly cared for. We often blame the maker for the high average, but if we could see the extra wastage in the curd from gassy milk during the process of manufacture, and the discrimination by the buyer, we would wake up, especially as one gassy can contaminates a whole vat. The milk effect has the good milk suffers loss on account of the careless patron.

Our experimental stations have proven many times that rich milk produces more cheese than poor milk. The Act will doubt be the most effective means of bringing about these needed improvements.

We must not be short-sighted, but look to the future in competing for the world's markets, and put a good uniform article on the market. Of the result of the Act, Ontario is the home of future will be known as the home of best cheese in the world. This Act will assist the farmer in building up his herd. The common practice in the past has been to select on the quantity basis alone. No doubt many cows that were good testers have gone to the butcher. It will encourage the farmer to feed more liberally, as most cows in good condition will give higher milk. Every farmer should realize that the first feed keeps up the cow's body, the profit comes from the food consumed after the body is maintained.

Regarding the straight test, or the test plus two: Normal milk is 87½ per cent. water, and 3 per cent. or more fat. The remainder is other solids. In fact, the water is the principal part of the milk used; in cheese making (the backbone of our dairy business) it is different. Most of the solids are water and most of the other solids are incorporated in the cheese. As cheese contains solids other than fat there

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MADE IN SWEDEN in the largest cream separator factory in the world; capacity, 180,000 separators a year. The enormous quantities is one reason why we can offer a first-class, high grade machine like the VIKING at a reasonable price.

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 Three No. 1 Skunk.

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A small dairy and fruit farm for sale 22 miles east of Toronto. On good main road. Excellent shipping facilities. Possession at once. Price moderate.

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Success For Sale

Success—Thousand pounds, used two seasons, half price.

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The first remedy for Lump Jaw cure

Fleming's Lump Jaw Cure

It remains today the standard treatment, and is recommended by all the best veterinarians and guaranteed to cure. Don't get the cheap imitations. It is the only medicine with a lump jaw cure that is guaranteed to cure. It is the only medicine with a lump jaw cure that is guaranteed to cure. It is the only medicine with a lump jaw cure that is guaranteed to cure.

Fleming's Vast-Prevent

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Most complete veterinary book ever printed to be given away. Use for a free copy. Write for it.

FLEMING BROS., Chemists
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 43 Church Street.

should be two or three added to the rest, as then the man with the lower testing cows will get a square deal.

Some breeders of Holsteins may cry down the Act, but it will be the greatest boon to pure-bred Holsteins they have ever experienced. By careful selection of sires from high testing stock the greatest obstacle in the Holstein business can be overcome. It is

possible to get high testing Holsteins, as some in our neighborhood test between five and six per cent. That will stop the laugh about the Holsteins' blue milk. I believe the Act should come into force March 31. We never had a better time to dispose of our poor testers than the near future promises to be.

In Union There is Strength

A Club With the Vigor of Youth

AMONG the many successful farmers' clubs over the Province of Ontario, the Balderson Club in Perth County is one of the best. This club was organized only in April, 1916. A disagreeable night at the time of organization brought out only about a half dozen interested members. It evidently thought out quality, however, for a club was formed and three or four energetic members were sufficiently enthused to do good canvassing work in the community. At the time of the annual meeting of the United Farmers of Ontario, in Toronto, last week, the club had 105 members on its roll, and since last April have done more than \$20,000.00 worth of business for a load of corn, and five or six car loads of oats. Such a club is indeed a credit to the organized farmers of Ontario, and shows what is possible in every live farm community. Can your club show such a record as this?

Mr. R. S. McTavish, Balderson, P.O. Ont., is the Secretary of the Balderson Farmers' Club, and represented them at the annual meeting of the United Farmers of Ontario held in Toronto.

Spirited Songs for the Farmers' Club

PRIZES have been awarded in the competition for songs to be used by the farmers' clubs of Minnesota, held under the supervision of the Agricultural Extension Division of the University of Minnesota. The first prize of \$10 was given to Mrs. James M. Atcherson, of the Medo Farmers' Club, Mapleton, Minnesota, for "Minnesota Farmers' Club Song," and the second prize of \$5 to Bert Amidon, of the Six Oaks-Pleasant Valley Farmers' Club, Plainville, Minnesota, for "The Jolly Farmers' Club." The first prize song is sung to the tune of "Auld Lang Syne," and the second to the tune of "Yankee Doodle." With few changes either could be made applicable for Canadian farmers' clubs. The two songs follow:

Minnesota State Farmers' Club Song
 We're sons and daughters of the soil
 Of this great North Star State
 Where agriculture reigns supreme
 And men cooperate;
 A people born with wondrous power
 That bids us onward move;
 Cooperation is our theme,
 Our Slogan—"To Improve."

Chorus
 Oh, Minnesota, State so dear!
 Let high our anthem soar,
 The farmers' clubs unite to sing
 Thy praises evermore.

We share whatever we have learned
 With forward moving men,
 Who give us of their ripened thought,
 That we may learn of them.
 Improvement grows from year to year
 Along the farming line.
 For better methods—higher aims,
 Our forces we combine.
 We love the country made by God,
 Its homes made fair by man;
 We claim with pride our sturdy sons
 Who bear the check of tan;
 We love our homes wherein we dwell,
 Our farms on which we toil;

We'll raise the best crops in the land
 From Minnesota soil.

The Jolly Farmers' Club

The sun is sinking o'er the hill,
 The evening bells are ringing,
 And through the air so cold and still,
 We hear glad voices singing.

The farmers' club, the farmers' club,
 The great association,
 We're going to make our farmers' club

The best one in the Nation.
 The chap who coers to see the show,
 That costs about a dollar,
 Just gets a chance to spend his dough
 And wear a stand-up collar.

The farmers' club, the farmers' club,
 It will not take your wages,
 But you get more enjoyment there
 Than on the city stages.

The lectures in the city hall,
 Have nothing to compare at all
 With things that nature teaches.
 We study soon and learn to please,
 Oh! come and join our happy crowd.

Yes, come and bring your neighbor,
 For this let's give a ringing cheer
 For this association,
 Let every member who is here

Join in the demonstration,
 Hail to our dear farmers' club,
 Hurray, for Minnesota!
 The greatest club, the grandest State,
 From Maine to North Dakota.

A Compliment to the Farmers

AN indication that members of the Canadian Manufacturers' Association are watching with interest the growth of the United Farmers' movement in Ontario, and that already they are impressed with its influence and power, was furnished recently through a manufacturing firm of Western Ontario, who manufacture a article that is extensively used by farmers. Owing to conditions that exist on the railroads this firm was finding it difficult to have certain of its goods moved. After making appeals on its own behalf and through the Canadian Manufacturers' Association, it Company in Toronto and asked them to use their influence to have the goods moved, at the same time expressing the opinion that the United Farmers' might be able to accomplish what the company itself had been unable to do. Surely this is a tribute to the growing strength of the farmers' organizations.

In the early stages of the company's growth, and even yet to a considerable extent, great difficulty was experienced in inducing the large manufacturing concerns to enter into business dealings with the company. Recently, when an editor of Farm and Dairy was in the office of the company in Toronto, he was interested to note the general manager and secretary-treasurer of one of the largest vehicle manufacturing concerns in Canada in the office for the purpose of entering into negotiations with the company to handle some of their lines of goods. As the sales continue to increase, the manufacturers will be more and more willing to do business with the United Farmers.



Farmers of Ontario

We are always anxious to serve the farmer in any way that we can, and would urge you to write us for quotations on anything you may require.

If you have any butter or eggs for sale, get our quotations before disposing of same elsewhere. We are now in position to handle your produce.

Farmers having seed grain or potatoes for sale may forward samples to this office, stating varieties, price and quantity.

Coal Oil and Gasoline have advanced 1c. per gallon. Better get your supply now, as price may advance again at this time.

If our coal estimate is large enough, we hope to quote most attractive prices on this commodity for delivery during the summer. It is up to the farmer to let us know as near as possible just how much they will require.

We are in position to offer very special prices on all cement ordered before March 29th. After that date there will be a slight change. Don't delay. Get our quotations now.

Our implement prices are worthy of your notice. Every farmer should have a copy of "The Farmer and the interests." We have these booklets for sale at sixty cents each, delivered in Ontario.

The United Farmers' Co-Operative Co.
 LIMITED
 110 Church Street Toronto, Ont.

DAIRY BUSINESS FOR SALE

A choice retail dairy business in a thriving town of over seven thousand population. This business includes route of four quarters per day and cream and buttering extra, with all modern machinery for handling same. This is a splendid opportunity for any person with small capital wishing to start in business of their own. This excellent business will be sold at a sacrifice. For terms and particulars, write

Box G. B. FARM AND DAIRY Peterboro, Ont.

BANNER OATS

Seed Oats tested 98. Free from noxious weeds. Prices on application.

J. H. STARK R. R. 7, PETERBORO, ONT.

SINGLE COMB WHITE LEGHorns

Get in right this season by ordering Hatching Eggs and Baby Chicks from our 250 egg winter layers. Our stock has been Dred-to-Lay and Picked for generations. Eggs, \$2 per 15, or \$8.00 per 100, fertility guaranteed. Baby Chicks, \$15 per 100.

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

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GIVES BEST SERVICE COSTS

Work horses need to stand many rough uses. They are especially suited to harness work. A good quality all-leather harness comes light on account of the scarcity of leather. That is why Griffith's Team Outfit is such a big help to farmers. It will stand a reasonable amount of wear and come much less than leather. Ours consisting of Giant Rope Traces, Giant Yale Reaps, Harness, Leads and Blanks, costs \$15.00 100 lbs. net of Port William.

Giant Rope Traces consist of four with best chain, \$4.50 100 lbs. net of Port William.

Griffith Giant Yale Reaps, per pair with one set of blades, \$1.00 (100 lbs. net of Port William).

Yoke and harness, \$1.00 per set.

Now shown. Write for booklet.

L. G. GRIFFITH & SON
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The Power Behind the Profitable Farm

Farmers to-day have the best chance ever to make money—if they can only solve the labor problem!

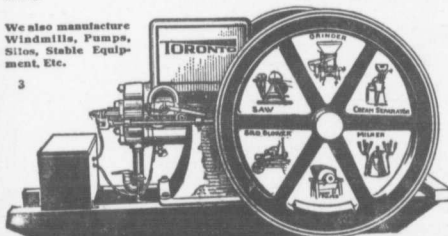
Here's where the TORONTO Gasoline Engine comes in. It handles no end of heavy work around the barn and house, and does it far cheaper than hired men—even if you could get them. From grinding, driving the straw and hay cutter, filling the silo, pumping water and sowing seed, down to running the milker, the filling the silo, pumping water and sowing seed, it will do so many hard, tiresome jobs that you'll wonder how you ever got along without it.

TORONTO ENGINES

Give particularly good satisfaction because they are so simple and adaptable. Our illustrated booklet shows that there is nothing complicated about them to be figured out, tinkered up or referred to experts—nothing likely to get out of order and tie up an important job. They start easily and run like clockwork, at a speed that can be controlled within wide limits while they are running.

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

3



Better Ensilage at less Cost with

The TORONTO Hip-Roof Silo

The comparatively low cost of wood staves—the quickness and ease of erection—and the extra capacity afforded by the new HIP-ROOF—make the TORONTO Hip-Roof Silo less expensive per ton of silage than any other standard type. Being absolutely air-tight, even to the doors, and having no tendency to sag at the front, it makes better ensilage than silos costing far more. Write for Booklet explaining its advantages. 14

Ontario Wind Engine and Pump Co. Limited

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TORONTO and MONTREAL.

NOTICE FENCE PRICES

Although the price of wire and steel of all kinds has recently advanced, and though some fence concerns have greatly advanced prices lately, we are still selling at prices established by us several months ago, and we expect to hold to these prices for the next three months. We cannot at this date make promises to hold good after that.

We sell direct to the user, and also through those dealers who are thoroughly reliable and are satisfied with a reasonable profit. Our price list and catalogue are ready for you.

THE PAGE WIRE FENCE COMPANY LIMITED.

WALKERVILLE, TORONTO, MONTREAL, ST. JOHN.

Agricultural News of the Day

Oppose Sample Markets

THE Canadian Council of Agriculture, before concluding a three days sitting at Regina, went on record as opposing all consideration of the establishment of sample markets or any other change in the system of marketing grain until after the war.

H. W. Wood, of Calgary, was elected President; J. A. Maharg, of Moose Jaw, Vice-President; and Roderick MacKenzie, of Winnipeg, was re-elected Secretary-Treasurer. R. Henderson and George Chipman, along with the officers of the Council, will constitute the Executive.

Farm Workers From the States

A BRIEF survey of the labor situation indicates that 5,000 more men are required to man the farms in Manitoba and a similar number in Saskatchewan. The minimum number needed for Alberta is 2,500. The immediate problem, therefore, resolved itself into inducing some 12,500 agricultural laborers in the United States to come to Canada to help with the spring work on the farms.

An arrangement has been completed by Mr. R. B. Bennett with the Provincial Governments of the prairie section whereby from \$150,000 to \$200,000 will be appropriated jointly by the Dominion Government and the Provinces in order to make a whirlwind campaign for labor in the western States. The Provinces will forthwith send 25 men south, and the Dominion Government an equal number. These 44 special agents will work in conjunction with the regular officers of the Immigration Branch of the Department of the Interior in order to bring to the attention of prospective settlers the attractions of the western Provinces, with special reference to the present farm labor situation.

Each farm laborer entering Canada under this arrangement will be furnished with a certificate to the

effect that as long as he remains a citizen of an allied country he cannot be called upon for any military service during the present war, nor will any obstacle be placed in the way of his departure from Canada at any time on account of the war situation. This was done to overcome the fear of conscription in the minds of many.

Britain May Buy Wheat Crop

BRITAIN is negotiating for the purchase of the entire Canadian wheat crop of 1917. The price to be fixed and lesser details of the purchase are now the subject of correspondence between Ottawa and London.

For obvious reasons, no statement in respect to the negotiations can be made by the Government here, but it is understood that the views of the western farmers were obtained last week, when J. A. Maharg, president of the Saskatchewan Grain Growers' Association; President W. Wood of the United Farmers of Alberta, and R. MacKenzie, secretary of the Grain Growers, met Sir George Foster.

Sir George Foster explained the British proposals to the farmers' representatives, and it is understood that they will present their answer shortly.

Last year Britain purchased outright the wheat crop of Australia. Shipping conditions, however, may make it desirable that a special preference be given Canada this year.

The total wheat crop of the Dominion in 1915 was 350,000,000 bushels. Last year, owing to rust and drought, it was considerably less.

Wheat Prices Considered High

THE Canadian Council of Agriculture, in session at Regina, has notified Sir George Foster, Minister of Trade and Commerce, that after considering the reported offer of the British Government to purchase the entire surplus wheat crop of the Dominion, it is of the opinion that the minimum price should be \$1.50 for No. 1 northern, at Winnipeg, and the maximum price \$1.90. Failing that, there should be a flat price of \$1.70 at Fort William. The other grades down from No. 1 northern, should be valued according to milling and baking tests.

The offer of the British Government was \$1.30 at Fort William, and the high figure named by the Canadian Council of Agriculture has caused some surprise at Ottawa, the Government believing that there is no valid reason to justify it.

The surplus crop of Australia for 1917 has already been purchased by the British Government, and the Australian farmer has received the equivalent of \$1.12 to \$1.16 for his wheat.

Items of Interest

A DEPUTATION from the Toronto Board of Trade waited on the Hon. Sir William Hearst, Prime Minister of Ontario, on March 16 with a proposal to send 5,000 employees of members of the Board of Trade during the summer to help Ontario farmers, instead of taking their usual vacations, the object being to increase production.

The labor situation has been satisfactorily arranged and there will be an adequate supply of labor for the spring seeding was the statement made recently by R. B. Bennett, Director-General of National Service, at Winnipeg, prior to his departure for the east.

The Activities of the District Representatives

EQUIRIES for seed grain of all kinds continue to come in, and minding on the field. He cultivated abundance of seed grain in the county getting a most excellent crop of grain, for our requirements next spring, and which, he contended, proved the great dred bushels of seed grain have been another farmer had the experience of J. W. Stark, Peel County.

From Welland County.

Our closing exercises took place on Thursday, Feb. 1, the success of which was very gratifying. The Town Hall was filled during the concert, and more than one hundred and twenty sat down to the banquet in our hall afterwards. The concert programme consisted of an inter-debate between two newly-formed J.F.A. and the Ridge-ject was, "Resolved that Specialized Farming in Ontario is more profitable than Diversified Farming." The speaker, and the boys all did credit to themselves and the Associations. The decision was given to the Welland Association.

The progress which the boys have made in stock judging is very satisfactory. The father of one of the boys and who by the way is a man who has judged dairy cattle at several of the fall fairs came to me after the Stock Judging Convention at Black Creek and said that his boy knew more about judging dairy cattle than he did himself. As I intimated in my last report at the stock judging convention at Black Creek, we conducted a judging competition for young men 30 years and under, and also one for the older men. Upon looking over the cards I found that while 50% of our boys' class had placed the dairy cattle properly, there was not one of the contestants in the older class which had placed them as Mr. Sackville placed them. It is quite evident that the boys have taken a very practical interest in such work and I believe that they will go back to their farms not feeling that they know such a great deal about agriculture, but feeling a great need for further training.—E. R. Hampson, Welland County.

Hoistler Club for Dundas County.

In connection with the breeders' club, we are very pleased with the results up to date. I have sent out a circular to every Hoistler breeder in the county, this circular contains a list of questions and was sent around in order to ascertain the feeling of the breeders towards organizing. We have received 45 replies out of the 60 sent out and in every case the men are in favor of organizing and signified their intention of becoming members. I am arranging to call a preliminary meeting at Chesterville next week and at that time will meet some of the larger breeders and make plans for a regular organization meeting which will be held sometime in March. The census which I have taken in connection with this club would indicate the prospects of a very successful club.—E. A. Brndt, Dundas County.

Sweet Clover Satisfaction.

It is significant that one of the ex-agricultural students, who sowed a half bushel of sweet clover seed two years ago thought so well of it that last year he sowed five bushels. During the past week he called in to say that he is so well pleased with the results both for pasture and hay, that he wants eight bushels for this spring's sowing. Last year he lost seven acres of sweet clover immediately after taking off the first crop. A couple of days after clearing the field the stems seemed as if they had

all been boiled, hardly a green spear remaining. It looks as though there is an abundance of seed grain in the county getting a most excellent crop of grain, for our requirements next spring, and which, he contended, proved the great dred bushels of seed grain have been another farmer had the experience of J. W. Stark, Peel County.

More ice is being put up this winter than usual by the farmers which we attribute to the hearty discussion of the Dairy Standards Act and the possibility of its coming into force.—A. D. McIntosh, Hastings County.

Of Course It's Easy.

A couple of farmers near Paris have purchased a small milk testing outfit and on the 14th came in to have instructions regarding its use. After showing them how, we let them do the work themselves under our guidance and before leaving they felt they were quite capable of conducting a test themselves.—R. Schuyler, Brant County.

An Alfalfa Seed Centre.

On Monday of the past week I went to Port Elgin and that evening met with some of the Alfalfa growers in that district who have a considerable amount of seed for sale. We had an informal meeting, discussed the seed organization and sell through the one of the largest amount of seed was selected as secretary and their address was verticement will be carried in his like 100 bushels of good seed for sale, and it is practically free from weeds, bushel on and sell through the one of the heaviest clay soils. One of the farmers, Mr. A. J. Lamont obtained some seed about 10 years ago which gave him splendid results. Since then he has raised seed each year and sold some of it to his neighbors, all of whom have had excellent results, and the past two years have had some good seed from their second cuttings. Last summer I examined some of these fields and they are of the variegated variety. While they do not know of seed originally, some of it came from the Caledonia Seed Co. in Hamilton County. Several of them made an excellent comparison between the saving of the first and second cuttings for seed production. The seed from the first gave a very poor yield and is very uneven in size, some of it being very small and some of it exceptionally large. That from the second cutting, however, was very uniform in size and yielded much better than the other.—N. O. MacKay, Bruce County, Blackleg in Peterboro.

I visited Mr. H. Weir of Keene, the other day and vaccinated 50 head of cattle with blackleg vaccine. Mr. Weir had lost two good calves through the disease. Both were apparently in good health in the evening and the next morning were dead. So far none of the other animals have contracted the disease. This disease was very prevalent in this district last spring, there being quite a number of cattle died and altogether we sent out sufficient vaccine for twelve or thirteen hundred cattle. So far this winter I have not sent about two hundred doses and no doubt there will be a number of calls for the vaccine as the season advances.—F. C. McRae, Peterboro County.

FREE!

"My Book is worn out—send me another"

From all over Canada requests have come from farmers for a second copy of this most useful of all farm books. Over 100,000 farmers have discovered by reading it, how they can greatly increase the value of their farms with but little cash outlay. It has shown them how to turn the little boxes of winter to immediate profit. In the new edition of the book—just published—there are 90 pages of practical suggestions.

Write for your copy—it will be sent to you free and without any obligation whatever.

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If you are interested specially in any particular subject, mark on "X" opposite that subject in the coupon below.

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"Wheat the Farmer Can Do with Concrete"

Established 1888

SOW SIMMERS' SEEDS

Our handsome Spring Catalogue now ready. A copy will be mailed free on request.

J. A. SIMMERS
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SEEDS,
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 Toronto, Ont.

The Surest Way To sell your surplus stock is through the live stock columns of Farm and Dairy. The cost is little and the results certain. Send in your ad.

Cheese Boxes for the 1917 Season

We make the STANDARD
BOX as demanded by Railway
Commission.

Factories at
Ingersoll,
Cavanville,
Pelleboro,
Belleville,
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Take no chances with
any other.

Write us for prices de-
livered to your station.

C. B. Jones & Co., Limited
Orillia, Ont.

"DUSTING HAS COME TO STAY—THAT IS MY OPINION"

H. H. WHETZEL, Professor of Plant Pathology, Cornell University.
These were the concluding words of Professor Whetzel's speech at the Ontario Fruit Growers' Convention, February 28, 1917. This gentleman has experimented very extensively during the last four years with Dust. He ought to know.

And—"We Will Dust Again Next Season" is the verdict of every fruit grower who used the Niagara Method of Dusting in 1916.

HERE ARE THE REASONS FOR THIS:

It has proven to be as effective as wet sprays for apple scab, codling moth, and all fungus diseases and insect pests. 40 acres can be efficiently covered in ten hours by using this method.

The Niagara Dusting Equipment complete with a horsepower engine weighs under a thousand pounds. This allows you to get into your orchard at critical periods, when the ground may be wet and heavy. You could not do this with the liquid spray rig that weighs over 3 tons.

Dust sticks to the fruit and foliage as long as liquid spray. There is no more wasted material with Dust than with liquid spray. Two men and a team can do as much work in 2 hours as three men and a team using liquid sprays can do in three days.

Timeliness of application is all important for successful spraying. The total cost of dusting is at least 25% less than liquid spraying.

WRITE FOR FREE BOOK ON DUSTING.

It contains an accurate description of the Niagara Dusting Machine and Materials, as well as a complete history of Dusting. Sent free on request. Use the Coupon to-day.

The Niagara Brand Spray Co., Limited, Burlington, Ont.

Gentlemen.—Send me free book on Dusting. The size of my orchard is about

Name

Address

Nothing too much can be said in favor of Dust for Canadian fruit growers for 1917 spraying. Look into this method now.

The Niagara Brand Spray Company are behind it. Remember, they have never yet suggested any spray practice to fruit growers that they had not first thoroughly tested and tried.

Arsenate of Lead, Lime Sulphur and Soluble Sulphur are all products that have "made good" and that were originated by them. Spraying by Sulphur Dust they know to be practical and better, or they would not offer it for sale.

About Liquid Sprays.

Some staidish believers in Dusting assert that the liquid spray should be used for dormant application and recommend

Niagara Soluble Sulphur (in powder form)

the spray material which dissolves instantly in cold or hot water—provides clean, top quality fruit, and is more efficient, practical, economical and convenient than Lime Sulphur Solution—because 100-lb. Drum of Niagara Soluble Sulphur Compound makes more dilute spray than a 600-lb. barrel of Lime and Sulphur Solution—less to haul and handle—no loss from leakage, no crystallization, no spalling. Save 25% on your liquid spray bills.

The Niagara Brand Spray Co.
Limited
Burlington,
Ontario

Legislative Doings

Affecting the Farmers.

Ontario Provincial Highways Act

HON. FINLAY MACDORMID, Minister of Public Works and Highways in the Ontario Legislature, on March 12 introduced the Provincial highways bill. The outstanding feature of the measure, as the Minister stated, is a system of highways extending from the south-west boundary of Ontario to the boundary line between Ontario and Quebec, connecting centres of population or other important terminal points. The bill provides that roads assumed by the province shall be under the control of the Department of Public Highways, and shall be known as provincial highways, the Department thereafter having authority to maintain, construct, deviate and widen any highway so assumed.

The general principle underlying the distribution of cost is that each township or local municipality should pay for a road sufficient for its local requirements, the additional cost to be borne by the province, with a special assessment upon cities for roads adjacent to them. The local municipalities through which the roads are assumed will be required to repay to the province thirty per cent of the expenditure made by the Department within such municipality, and each city shall repay to the province a like proportion of the expenditure made upon roads designated as "provincial suburban" adjacent to the city.

In effect, the province thus pays 40 per cent of the cost of constructing and maintaining roads within the suburban area adjacent to each city, the city and township each being required to contribute 30 per cent. Outside of suburban districts the province takes up the share levied upon the city, and contributes 50 per cent of the cost, the township paying 30 per cent. The cost of surveys, machinery, plant and equipment, and general overhead and staff expenses, will be borne entirely by the province.

In the case of bridges having a clear span of twenty feet or more, the municipality will be required to pay 60 per cent of that part of the cost of construction or improvement which would have been expended by the municipal corporation for local purposes, the remainder to be borne by the province. After construction, the maintenance of the bridge will be in the same proportion as the remainder of the highway.

Farmers' Day in Legislature

MARCH 13th was farmers' day in the Ontario Legislature. The action of Premier Hearst in himself taking the portfolio of agriculture and adding to the already complicated machinery of the agricultural department, was under fire. Premier Hearst assured the House that the arrangement was a temporary one and arranged only in order that he, the Premier, might be brought more closely in touch with the problems of agriculture. After a discussion that lasted almost a full day the present arrangement was legalized by the House.

Mr. R. S. Duncan's Promotion

It is understood that Mr. R. S. Duncan, District Representative of the Department of Agriculture for Durham county, is to be appointed superintendent of the work of District Representatives for the whole Province of Ontario, while Mr. L. H. Bailey, Deputy Minister, who was formerly in charge of this work, will

devote more of his time to settlement work in New Ontario, where it is planned to train settlers agricultural and settle them on the land.

Mr. Duncan has been stationed at Port Hope for seven years. At first his field covered the united counties of Durham and Northumberland, but latterly it has been confined to Durham. Mr. Duncan has done excellent work in his old place, particularly with demonstration orchards, in organizing the Durham and Northumberland Fruit Growers' Associations, in short course work for young farmers, and latterly in organizing a Horse Breeders' Club in Clarke township. He will be succeeded by Mr. Williamson as District Representative for Durham.

Tire Drainage Loans

TIRE drainage has been carried on extensively in the most south westerly counties of Ontario and the \$50,000 which can be loaned to any municipality under the Tire Drainage Act, has proved inadequate in those counties. Application was made some months ago to the Provincial Government for an increase in the loan. Accordingly Hon. T. W. Ho-Gary has introduced in the Ontario House a bill to amend the Tire Drainage Act and increase the loan to one municipality from \$50,000 to \$100,000 and the total which may be loaned under the act from \$500,000 to \$1,000,000.

Light on Vehicles

IF a bill introduced in the Ontario Legislature by Mr. Geo. H. Gooderham becomes law, all vehicles on the public highway must carry a light at night. Two important provisions of the bill are as follows:

Where a person travelling or being upon a highway in charge of a vehicle or on horseback meets another vehicle or person on horseback at a cross-road or intersection, the vehicle or horseman to the left hand shall have the right of way.

Every vehicle, except a motor vehicle and a traction engine, shall carry a lighted lamp on the left-hand side of the vehicle, and plainly visible from the front of and from behind the vehicle.

War Information Bureau

THE Hon. Martin Burrell, Federal Minister of Agriculture, has addressed the following letter to the farmers of Canada:

"This is the crucial and, we hope, the final year of the war. The armies and the munitions factories of the Allies are trained and organized for a supreme, united effort. The maintenance of an adequate food supply is vital to the success of the effort.

"In this crisis, it is the duty and the privilege of the Dominion Department of Agriculture to lend aid in all possible ways. In striving for maximum production this year, many farmers will meet with difficulties demanding prompt solution. Our resources are at their disposal and lest there should be any uncertainty as to where to address enquiries and request on matters that do not seem to come exactly within the scope of the officers of the Experimental Farms Branch, it has been decided to open an Information Bureau.

"Thus, if you are not sure which Branch of the Department you should address, do not waste time or fail to write us on that account. Simply address your letter to:

"INFORMATION BUREAU,
"Department of Agriculture,
"OTTAWA."

"It will be handed to the proper officer the delay and will be replied to promptly."

Wayside Gleanings

By W. G. Orvis, Field Representative, Farm and Dairy.

The Empty Tenant House

TRAVELLING through the country in many parts of Ontario, one is sure to be impressed by the number of empty houses that, in former years, were occupied by hired men and their families. It is quite significant that so many of them are empty; it tells part of the trouble story of the Ontario farmer. For a number of years we have heard it said that the comfortable dwelling for the hired man and a yearly engagement would solve the labor problem on the farm, and I suppose under normal conditions this is quite true. It takes more than these things, however, to get men these days. It has also been said that if the farmers would pay the wages they would get the men. Not so! says the man who knows, for big wages are being paid and still the hired man of former years continues to leave his usual place of abode. What is the reason? To my mind it is that human nature is so constituted that we are governed largely by popular sentiment. The prevailing sentiment is that every man has at the present time a duty to perform for his country, and this can only be done by enlisting or assisting in the manufacture of munitions or war material. Consequently our hired man, feeling the pressure of this force, leaves the farm and goes to the town or city to take up work of this nature. Much discussion has taken place on

the floor of the Provincial Legislature about the importance of agriculture in these critical times, and this department is honored by having the Premier of the province at its head. Should not this have a tendency to sway public opinion in a manner that will bring the farmer and his work to the place where they will be considered of equal importance with the other industries? Will the time ever come when the popular and patriotic thing to do will be to go and work on a farm? Will it ever get beyond a school boy fad?

Some people seem to think that the farm and most things connected with it can be managed by women or those not fit for military service. Yet we who have a more intimate knowledge of its demands are painfully aware that it takes a full sized man mentally and physically to manage a farm successfully. We are ready to give full credit and respect to those who are willing to assist us in our work; yet we cannot help but feel the injustice of the views held by the populace in that those whom we need most at this time in many cases have been induced to separate from us because of this sentiment. We have too many unoccupied tenant houses, from which families have gone to the towns and cities, who could have served their country better by staying on the farm. —"Burnbrae."

Slow Sale of Seed Oats

THIS far only sixty odd thousand bushels of No. 1 Canada Western seed oats have been ordered for all points in Eastern Canada. Flour and feed merchants are somewhat averse to purchasing carlots without assurance as to its being wanted for

seed. As a matter of fact this seed oats should be worth the extra price for feed, because the light grain and weed seeds have been removed in cleaning.

Farmers desiring No. 1 C. W. seed oats should order promptly through their dealers or club together and purchase in carlots. These seed oats are of the Banner and Abundance varieties and the germination is much superior to eastern grown oats of the 1916 crop.—Seed Branch, Ottawa.

A Farmer to Country Merchants

EDITOR, Farm and Dairy.—There is a tendency in our rural districts nowdays that worries me. It is the tendency of rural villages to disappear. Villages, as I remember them in my boyhood days were populous and busy centres of industry. In this section, at least, their population has been steadily depleted. Their importance as trading centers has almost disappeared and the village merchant is not the important citizen that he once was.

The merchants are still holding on, however, and a dissatisfied bunch they are. Their favorite occupation seems to be "cussing" the farmer whose greatest crime is to sell where he can get the most for his produce and buy where he can get the most for his money. The merchant seems to cling to the old theory that he has a divine right to buy everything the farmer has to sell and establish his own price on both transactions.

Now I am a farmer. I am sorry for the local merchant in his predicament, but I am not sorry enough to let my purse to ensure his salvation. I patronize mail order houses, be-

cause I get better value there for my money. I ship my cream to a centralized creamery and my eggs to more money concern, because we get than the merchant would pay us for butter and eggs and we are saved the trouble of making the cream into butter. At the same time I am sorry to see the rural merchant losing his trade. I realize that we need the merchant in our midst. Is there any way around it?

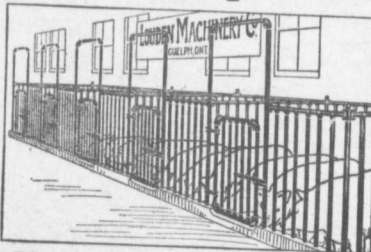
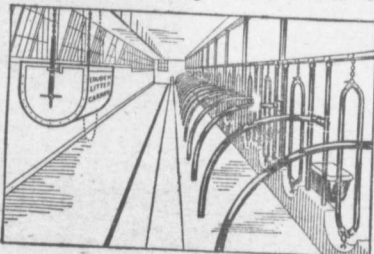
A Changing Order.

I don't believe the merchant will ever take the place that he once did. The tendency is towards centralization. I know that we will always ship cream instead of making butter. There are certain staple goods that we will always buy through our farmers' club, because we can buy them cheaper in that way, but in many, many lines of goods the merchant now does.

For instance, why could not country merchants buy cooperatively. Out west the merchants are getting together in buying circles and by combining their orders they are getting their goods cheaper than before; order houses can purchase their supplies. A little more cooperation and a little less kick would put the merchant in line with modern tendencies in trade.

Let the country merchant sell for cash or, if he does not sell for cash, give a discount to the man who pays cash. The tendency of some merchants to encourage credit buying on the theory that the credit customer will buy more goods because he loses track of his indebtedness, is now too

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"Everything for the Barn" 2

Market Review and Forecast

TORONTO, Monday, March 16.—National Service Director... announcement that the labor situation in the three prairie provinces will be satisfactorily looked after...

mixed, \$9 to \$11; straw, car lots, \$8.50 to \$14. At Montreal, hay No. 2, \$13.60 to \$14. POTATOES AND BEANS. Potatoes—Ontario are quoted at \$3.25; Delaware, \$2.50...

The Sale Programme

The Oxford District Holstein Breeders' Club... The Belleville District Holstein Club will hold their annual sale of April 4...

There were no new developments in the butter situation... The demand for horses for shipment to the East still continues and the Ontario trade is opening up...

WHEAT

The wheat market has prospects of a further drop in price... The wheat market has been somewhat hinged on the threatened railway strike...

GOOD RECORDS WITH HIGH TESTS

LAKELVIEW Leastrange, in the Lakeview herd of E. F. Oiler at Bronte, Ont., is doing particularly good work...

COARSE GRAINS

Local trade was only moderate in volume on this market... Local trade was only moderate in volume on this market and prices were still firm...

PEACH BLOW AYRSHIRES

Young Stock for sale, always on hand (both sexes), from high-testing heavy producers... Good udders and large test, from high-testing young stock...

MILL FEEDS

Shorts and bran dropped in price during the week... Shorts and bran dropped in price during the week, but the market was still firm...

FAIRMOUNT AYRSHIRES

Mature cows and young stock for sale always on hand (both sexes) from Fairmount U.S.A. No. 49184... Mature cows and young stock for sale always on hand...

AYRSHIRES



FOURTH CONSIGNMENT SALE OF Pure Bred Ayrshire Cattle From the Herds of the Southern Counties Ayrshire Breeders Club To be held at DR. RUDD'S SALE STABLE WOODSTOCK, ONTARIO APRIL 5th, 1917, at 1 p.m.

In this sale will be found representatives of the greatest producing strains of Ayrshires in Canada... MOORE & DEAN, Auctioneers. JOHN MCKEE, Secy. and Sales Manager.

FOR SALE AYRSHIRES AND YORKSHIRES.

Having purchased from Senator Owens the Riverside Farm at Montebello, Que., and his celebrated herd of Ayrshire Cattle and Yorkshire Pigs, Calves and Bulls fit for service...

TANGLEWYLD AYRSHIRES

The Leading R. O. P. Herd Large Cows, Large Bulls, Large Heifers, High Testers, Choice Young Bulls and Bull Calves, and a few Cows for sale.

TROU RUN AYRSHIRES

For Quick Sale. One choice large show bull, fashionable color, and a beauty of dillon, sixteen months old...

Fernbrook Ayrshires for Sale

Bulls from 8 to 12 months old, out of dams closely related to the world, Gairloch May Michter...

AYRSHIRE BULLS

We offer an exceptionally good pair of bulls, 12 and 14 months old, from particularly good dams...

FAIRMOUNT AYRSHIRES

Mature cows and young stock for sale always on hand (both sexes) from Fairmount U.S.A. No. 49184...

PEACH BLOW AYRSHIRES

Young Stock for sale, always on hand (both sexes), from high-testing heavy producers...

When You Write--Mention Farm and Dairy

Massey-Harris Service

Talk No. 1.—*The Value of Permanence*

THE name "MASSEY-HARRIS" stands for Stability, for Permanence, for Reliability.

From a very small beginning *seventy years ago*, the business has steadily grown until now four large Canadian factories are kept busy supplying High-Grade Farm Implements to thousands of farmers all over the grain-growing world.

This steady growth has been due entirely to the fact that Massey-Harris Implements have given satisfaction—not only for a few years but for many years. We have in our office testimonials and photos of Massey-Harris Implements which have been in use for twenty to twenty-five years and *still doing good work*.

The experience gained in these seventy years of supplying progressive farmers of Canada and other lands with implements, and the knowledge secured by our large force of field experts who are constantly studying the farmers' needs, combined with our splendid facilities for manufacturing, enable us to produce a line of Farm Implements known the world over for their reliability.

In buying Massey-Harris Implements you not only get the

Our extensive Factories and ten Branch Offices located at strategic points throughout Canada, are a guarantee of service, both now and for the future.

best value that long experience, the best of materials and unsurpassed facilities can produce, but in addition you get *Service* backed by an organization whose permanence is unquestioned.

The advantages of dealing with an old reliable Company selling its products through its own representative in your neighborhood, are many. There is no freight to pay, the machine is carefully erected, and a responsible machine man sees that it is properly started and is doing the work for which it is intended.

You pay no money until the machine is in your hands, and you have the satisfaction of knowing that there is a representative of the Company within easy reach to render prompt and efficient service such as can only be furnished by the manufacturers.

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