

# FARM AND DAIRY & RURAL HOME

DEVOTED TO  
BETTER FARMING  
AND CANADIAN  
COUNTRY LIFE

Peterboro, Ont., July 8, 1915



A BUNCH OF "QUACKS."

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## Another "Simplex" Feature

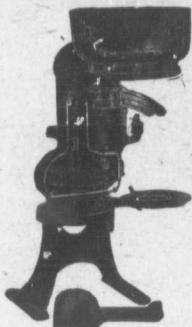
### Easy Access to Gearing

NOTE the illustration. Instant access to the gearing of the separator is had by removing the large housing on the rear of the machine, and without disturbing any of the moving parts.

THE clutch is the one piece taken apart in two or three minutes and reassembled in about the same time.

THE entire machine can be automatic safety clutch that has been so successfully used on the previous "Simplex" models.

AS far as possible the parts in all four sizes have been made alike and interchangeable. These include the principal parts of the frame, the gearing, bearings, tinware, etc. It is only by this system that such a



Showing Simplicity and Accessibility of Gearing. Removing the body-housing exposes the gearing and lower bearings of the Simplex.

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can be purchased at the price.

THE ease of running, ease of cleaning, simplicity, self-balancing bowl, interchangeable spindle point, low skimming supply can, the general pleasing appearance, and the perfect finishing of the "Simplex" make it the favorite everywhere it goes.

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BEAR in mind, too, that we are agents for the B-L-K Mechanical Miler. Tell us how many cows you milk, and we will give you estimates on what it will cost you to install a B-L-K.

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Farm and Dairy - Peterboro, Ont.

## Light on Feeding Dairy Cows

A Summary of Investigations at the Central Experimental Farm during the Last Year

By E. S. Archibald, B.A., B.S.A., Dominion Animal Husbandman.

A BARN set aside for cow feeding experiments was utilized to carry on a series of tests to show the value of elevator screenings and by-products for the manufacture of milk and butter fat. The standard meal mixture fed during the winter in this barn consisted of bran, 4 parts; gluten feed (23 per cent.), 2 parts; corn meal, 2 parts; oil cake, 1 part; cotton seed meal, 1 part. This mixture cost \$26 per ton. From 15 to 20 cows were used in experiments 1, 2, 3 and 4. The importance of such experiments is readily understood. Western farmers particularly should keep all the elevator screenings at home and utilize the same for the manufacture of milk or meats.

Experiment No. 1 consisted in a comparison of the above standard meal mixture versus a ration composed of standard meal, 2 parts; pulverized complete elevator screenings, 1 part. As much milk was produced by the use of the elevator screenings and at somewhat lower cost per hundred pounds. In this experiment the elevator screenings acquired a value of \$34 a ton.

Experiment No. 2 consisted in a comparison of the standard meal mixture (see experiment 1) versus a ration composed of standard meal, 2 parts; finely pulverized blackskeds, 1 part. A much lower production of milk followed the adoption of this latter ration. However, the blackskeds showed a somewhat lower cost of production. This, however, is indefinite, for the shortening of one third of the standard meal mixture might have shown as good or better results than where the blackskeds were added. The blackskeds were very unpalatable and were refused in part by some of the cows throughout the whole period. No ill-effects followed their use but no good results were shown.

Experiment No. 3 consisted in a comparison of the standard meal mixture (see experiment 1) versus a ration composed of standard meal, 2 parts; complete pulverized elevator screenings, 2 parts; Caldwell's Molasses Meal, 2 parts. There was a marked decrease in the production of milk by the adoption of the latter ration, as might be expected, due to the lower protein content. However, it cost 5 cents less per hundred pounds to produce milk, due to the low valuation of the elevator screenings. In this lot it was shown

that a mixture of equal parts of Caldwell's Molasses Meal and pulverized complete elevator screenings may have a valuation of \$26 per ton as compared with the standard meal mixture.

### Experiment No. 4

This was a comparison of the standard meal mixture versus a ration composed of standard meal, 4 parts; Caldwell's Molasses Meal, 1 part. The latter ration showed slightly less milk produced and with an increase in cost of 7 cents per hundred pounds of milk. The Caldwell's Molasses Meal here has a valuation of \$22.50 per ton, although its market value is \$34 per ton.

### Experiment No. 5

Ensilage versus Molasses.—The idea of this experiment was to show the value of molasses when a farmer has a shortage of succulent roughage. The molasses was in a diluted condition, poured on the hay. Thirty pounds of ensilage per cow per day was roughed off by 15 pounds of ensilage and 4 pounds of best quality feeding molasses, which cost \$23 per ton. About the same quantity of milk was produced on each ration, the latter ration showing slightly greater cost. With ensilage valued at \$2 per ton, and the hay and grains valued as seen in the report of "Dairy Records," molasses thus acquired a valuation of \$11.90 per ton.

### Experiment No. 6

Turnips versus Molasses.—The purpose of this experiment was similar to experiment No. 5. Thirty pounds of roots was replaced by four pounds of molasses, the molasses being 1:1 diluted, sprinkled on the hay. In this case all the succulent roughage, namely roots, was replaced by the molasses, with the result that there was slightly less milk produced and at an increased cost of eight cents per hundred pounds of milk. When compared with the valuations placed on other feed-stuffs, molasses here is worth only \$10.20 per ton.

The Adolphustown Farmers' Club sends Farm and Dairy the following memorandum of their transactions this year: "Bought 60 bushels of red clover seed and 80 bushels of red clover, the latter from the Western Seed Growers' Association; also a carload of salt and two tons of binder twine." The binder twine order was placed with a local man who, owing to the quantity, was able to fill it advantageously for the members.



We Welcome

Trade Increases

Vol. XXXIV

CANADIAN dairy farmers have come to be known as "turned out" of many laborious True, the milking it than in winter and stable work season. There were dairy management changes are changing slowly and unwillingly extra work, are they give to the months. The older growing feed these same cows on dry pasture, stable.

One of the great changing systems is the inheritance of the herd. The inherit productive to produce more milk in a summer at the greatest profit by on her behalf well bred pure or day, however, cap from 8,000 to 15,000 a year, must be a gation every one of the year if she is est profit. Another bringing about a system of management creating cost of tures in many se thing of the p factor is the milk for a uniform su year round. Hence more summer fe many intelligent profitable.

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Queen Pontiac Ormsby, One of Canada's Best Two-Year-Olds. The 33 day production for this senior two year old heifer is 2,473 lbs. of milk and 64.8 lbs. butter fat. Photo by Walter Fairweather. Owned by W. H. Holby, Port Perry, Ont.

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# FARM AND DAIRY



We Welcome Practical Progressive Ideas

## & RURAL HOME

The Recognized Expert of Dairying in Canada.



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

Vol. XXXIV

FOR WEEK ENDING JULY 8, 1915

No. 27

## Summer Feeding of the Dairy Cow

Experimental and Practical Evidence as to its Value

CANADIAN dairymen have long been accustomed to hail with joy the time when the cows are "turned to grass." It means the end of many laborious morning and evening chores. True, the milking still has to be done, more of it than in winter on most farms, but the feeding and stable work are regarded as over or the season. There was a time when this system of dairy management was advisable. Now conditions are changing and dairy farmers, perhaps slowly and unwillingly, for none of us welcome extra work, are increasing the attention that they give to their cows during the summer months. The old system of spending the summer growing feed for the cows in winter, while these same cows were half-starving on dry pastures, is no longer profitable.

One of the greatest factors in this changing system of summer management is the improvement in our dairy herds. The cow that did not inherit productive capacity sufficient to produce more than 3,000 lbs. of milk in a summer season, was kept at the greatest profit where the output on her behalf was least. The well bred pure or grade cow of today, however, capable of producing from 8,000 to 15,000 lbs. of milk in a year, must be given proper nutrition every one of the 365 days in the year if she is to yield the greatest profit. Another factor that is bringing about a change in our system of management is the increasing cost of land; cheap pastures in many sections are already a thing of the past. Still another factor is the milk contract, calling for a uniform supply of milk the year round. Hence the tendency is all towards more summer feeding, although there are still many intelligent farmers who question if it is profitable.

### Experimental Evidence

There is little in experimental evidence to make the doubtful one enthusiastic over grain feeding in connection with pastures. At the Cornell Experimental Station, for instance, some years ago the utility of feeding grain to cows on pasture was studied in the Station's own herd. In the first trial, cows receiving grain while on luxuriant pasture, gave less milk but an equal amount of fat with those getting no grain on the same pasture. The following season with the pastures luxuriant, except for a short time in midsummer, the lot receiving grain and that without grain did equally well. In the

third trial, both lots were soiled with grass, one lot getting grass only while the second received grain in addition. In this trial the grain-fed cows gave just enough more fat to pay for the grain received.

The Station authorities followed up these tests with one that was more practical. They took a herd of 16 cows belonging to a neighboring dairyman, which had been fed lightly during the winter. The cows of lot one were fed four quarters of grain daily and a mixture of two parts corn meal, one part wheat bran, and one part cotton seed meal by weight. The other lot received no grain. When the pastures became poor, both lots were fed green fodder corn and

fat. Again too small to pay for the grain fed.

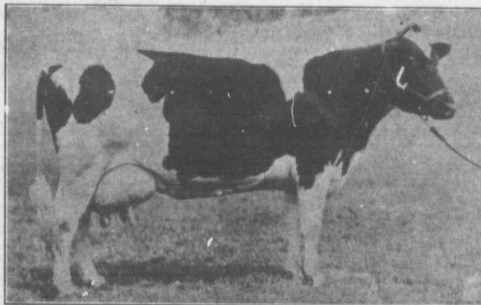
From all the experimental evidence on hand, we may conclude that where pastures are luxuriant, there are no profits from feeding cows grain. It should be noted, however, that in all of these experimental tests, the cows had ample pasturage, some of the pastures being described as "luxuriant," and when the pastures grassed failed, they were supplied abundantly with soiling crops. The experiments, therefore, did not apply to conditions on the average farm where the pastures are dry perhaps for a couple of months each year, and where soiling crops are not supplied. This factor explains, too, why many practical dairymen are so emphatic in the re-

belief that the feeding of grain does pay. Two progressive dairy farmers in Peterboro county, for instance, kept careful tab on the money spent for grain when pastures were dry and soiling crops had not been provided, and they found that for every one dollar invested in grain, the increased milk yield netted them three dollars. This is an exceptionally high return, but other dairymen have reported returns of \$2 to \$1 in favor of grain feeding on short pastures. In previous issues of Farm and Dairy, such leading dairymen as Wm. E. Mason, Alex. Hume, R. M. Holby, and R. W. Walker have all testified to the satisfactory returns from feeding grain when pastures are short.

### Grain Not Ideal Supplement

Grain, however, is not the ideal supplement for summer pastures. A combination of grain with soiling crops, or, better still, grain with summer silage, is more economical and desirable. Recently one of the editors of Farm and Dairy sent a couple of days in the district supplying milk to the Tillsonburg condensery. For miles around, the country bore a prosperous appearance, and that prosperity came largely through dairying and dairying at these factory prices, for the condensery has been running but three years. It is logical to assume, therefore, that the feeding practice in such a prosperous dairy community must be about right from an economical standpoint. These milk producers should be able to testify as to their profitability of summer feeding.

Mr. John Simmons, just across the line in Norfolk county, milks 20 to 25 cows, which average him at the condensery \$100 to \$125 each year. The profits from his herd have largely



The Finest Pride Johanna Rue, 121063, the Newest Queen of the Dairy World.

The world's record for butter fat production has been broken no less than four times in the past few months. The new record of Finest Pride Johanna Rue, owned by the Somerset Holstein Breeders Co., Somerville, N.Y., is 25,037 lbs. of milk containing 1,176.47 lbs. of butter fat, and she is about as good in conformation as in production.

later green millet. As a result, lot No. 1 were fed 5,200 pounds of grain and gave 4,931 pounds of milk more than those getting no grain, or 28 per cent. This lot also showed the greatest gain in weight. At present prices for grain the experiment could not be considered a financial success, although at the time it was conducted it was not reported on favorably.

Experiments at other Stations are no more convincing. In Kansas 10.8 and 12.6 pounds of corn meal, bran or oats were fed daily to cows on "ample pasturage consisting for the most part of orchard grass and red clover." The increase in milk fat amounted to 16 to 31 per cent., not sufficient to pay directly for the feed supplied. At North Dakota bran and shorts were fed to cows grazing on good pasture, with an increase of only six per cent. in the yield of

contributed to the buying and paying for of an excellent 200-acre farm. Mr. Simmons informed us that he feeds barley and oat chop right through the summer. He considers it necessary to a profitable milk flow. In connection with the grain, he also feeds corn ensilage or soiling crops, and this year he is planning to put up a new cement silo in order that he may be sure of having sufficient silage for feeding all through the summer weather. "I claim that farmers should have silage enough to feed it all the time," said Mr. Simmons.

A few weeks ago we told in Farm and Dairy of the exceptional success achieved by Mr. Albert Twiss and Mr. John Robinson on muck farms. Both of these men are extensive milk shippers to the Tillsonburg condensory, both of them have made notable successes of dairying, and both of them believe in grain and silage as supplements to the summer pasture. Mr. Robinson has two big silos, one of which is intended principally for summer feeding. In addition, about four acres of sweet corn are grown for fall feeding.

#### More Practical Evidence

Mr. John Anderson, near Tillsonburg, milks from 18 to 25 cows, which average him at least \$100 a year at the condensory. "You have to feed good to get that much per cow," remarked Mr. Anderson on our representation. "I feed oats and barley crop, which we buy, along with corn ensilage the year round. Does it pay? Why certainly, or I wouldn't keep it up."

We doubt it any farmer in Ontario has a more productive herd than Mr. Geo. B. Ryan, whose 10 cows in 1914 averaged him over \$150 each at the condensory. Mr. Ryan, like most of his progressive neighbors, feeds grain the year round and has a summer silo. He believes that the only way to make cows profitable that have the inherent ability to produce a large quantity of milk, is to feed them well all the time.

We find it so everywhere. Summer feeding in our best dairy districts is becoming as well fixed a habit as is winter feeding in all districts. True, it means more work to stable the cows and feed them twice a day, but the most of us do not object to work if it is profitable work. A judicious combination of grain and roughage as a supplement to pastures is profitable, as hundreds of practical men will testify.

#### Contagious Abortion in Cows

Dr. H. G. Reed, V. S., Halton Co., Ont.

THIS disease has been a source of great loss to the dairy interests of the country. It differs from ordinary abortion in that it is exceedingly contagious. It is produced by a germ—the bacillus of abortion. The vitality of this germ is very great. It will live for months in a healthy state in the genitals of a cow that has aborted, or in the sheath of a bull that has been used to a diseased cow. The discharge from the vagina of such a cow or the service of such a bull is almost sure to set up the disease in healthy animals. When the germ gets an entrance into the system of a cow it works its way into the uterus, womb and sets up a specific form of catarrh which leads to the death and expulsion of the foetus.

At one time it was thought that the germ always got into the system of a cow through the medium of the generative organs, but it has been

demonstrated by experiments conducted by a commission appointed by the British Government that the disease is often produced by animals getting the germ on their food and the disease developed through the stomach. Cows which have aborted while on pasture and the discharge from the genitals dropping on the grass and eaten by healthy cows will produce the disease in these animals.

#### Symptoms

The disease usually occurs between the third and seventh month of pregnancy, but is liable to occur at any stage. The udder will become enlarged, the lining membrane of the vulva will become reddened, with a dirty red discharge from the vagina. The foetus as a rule is born dead. A persistent discharge often remains for a considerable time, in consequence of which the cow may fall off in flesh and become stilted.

#### Treatment—Preventive

If the act of abortion once begins no medicinal or any treatment can stop it. When abortion has taken place the foetus and afterbirth should be buried or burnt, all discharges carefully cleaned up and the surroundings sprinkled over with a good strong solution of carbolic acid or creolin. Also the external genitals, the tail and hind-



A Shady Retreat for Cattle is an Important Consideration in Arranging the Ideal Dairy Farm.

—Photo on the farm of T. H. Dent, Oxford Co., Ont.

quarters of the cows should be carefully washed and disinfected. The genitals should be flushed out every day with a two per cent. watery solution of carbolic acid or creolin in order to destroy any germs in the vagina or womb. This should be kept up till any discharge from the vagina has ceased. Bulls should have the sheath flushed in the same way after having served a suspicious cow, and a bull newly brought into a section should be treated in order to make sure against contagion. Bichloride of mercury of the strength of 1 to 1,000 in watery solution is often used in place of the drugs already mentioned.

No healthy animal should be allowed to eat any fodder, whether in the barn or at pasture that was contaminated by the discharge from the genitals of an animal that had aborted.

#### Treatment—Curative

In speaking of curative treatment, it is well to bear in mind that this disease usually ceases to occur in a herd after a period of from one to three years. The cows seem to become immune to any further attacks. Because of this fact, certain drugs have been given credit for doing what in all probability was due to care and the natural immunisation of the cows. The internal administration of carbolic acid has been thoroughly tried out by the British commission already referred to, and found to be worthless as a curative agent.

The latest curative agent that has been recommended is methylene blue. One teaspoonful given to each cow on her food once a day for

five weeks. It is claimed that if there is any abortion in a herd that this treatment will arrest the progress of the disease and prevent healthy animals from contracting it. As there is a lot yet to learn about controlling this malady, it might be well to try the new cure, and as our knowledge increases, better systems for controlling it will no doubt appear.

#### A Dual Purpose Farm

IT is a dual purpose property. The house faces a street of the pretty town of Bloomfield. One hundred yards to the rear of the house is the barn. Beyond that lie the fields. It is the happy lot of Mr. Edward Purteile to enjoy this combination of town and rural life.

Mr. Purteile is a dual purpose farmer. His canning crop furnishes a large part of his income; his pure-bred cattle are another lucrative source. He keeps dual purpose cattle, too. His ideal dual purpose cow is the large, straight-backed, square-rumped Holstein. "You don't get huge yields of milk from first-class beef animals," reasons Mr. Purteile. "Either the beef or the milk must be a side line. There is no doubt that the combination making milk the specialty and beef the side line is the most profitable. For this purpose where can you get the equal of the Holstein? As milk producers they stand at the top of the list and their beefing qualities deserve more consideration than they usually get."

#### A Change to Pure-Breds

Until about 10 years ago Mr. Purteile kept a herd of grade Holsteins. He decided there was money in Holsteins, and bought a registered calf and a cow. He has never bought on a large scale, and the majority of his herd are the progeny of his original purchase.

The profits in pure-bred Holsteins have been fully equal to expectations. "I have invested \$195 in pure-breds," Mr. Purteile recently told a representative of Farm and Dairy. "I have sold \$1,350 worth of stock, and the cows in the barn are worth over \$5,000. I consider that a paying proposition."

Of course, these figures do not take into account the investment on or present worth of their son of King Segis Pontiac Alcarra. And then there is the milk. Says Mr. Purteile: "Beside the return from sales of stock, I have to credit my pure-breds with the profits from the dairy end of the business. The net profit per cow has increased considerably since I discarded grades."

#### Cooperative Breeding Followed

Mr. Purteile and his neighbor, Mr. Leavens, have always cooperated in the ownership of sires. This lowers the cost to each and consequently they can afford to have better animals than would have been profitable if a sire was maintained for each herd. Recently they united with another neighbor and purchased a son of King Segis Pontiac Alcarra at a cost of \$2,000, and they made a good investment. Such enthusiasm, energy and cooperation spell success.

Feeding of the ensilage may take place any time after filling, but if it is not to be used for some time it is well to add a covering of cut straw and some weighty close material to exclude air; this, of course, provided straw is more plentiful than ensilage, which is not always the case.

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# Methods of Controlling the Army Worm\*

## Lessons Learned in 1914 for Which There May Be Needed in 1915

By ARTHUR GIBSON, Chief Assistant Entomologist, Ottawa

IN the outbreak of the army-worm in western Ontario in 1914 it was found that the important method of control was the plowing or digging of trenches in advance of the caterpillars' line of march. Ordinary furrows three or four inches deep were found to be useless. The trenches should be at least 10 inches deep—14 inches is better—and throughout their length post holes at least from one to two feet in depth should be dug every 15 feet. As the main roots of grass and grain plants extend at least six inches below the surface, the importance of the deep ditch will readily be seen. Otherwise, the worms will crawl up the roots and escape from the furrow. The side of the trench nearest the crop to be protected should be straight, trimmed, if necessary, with a spade.

In the recent outbreak it was found that in clay, or even muck land, it was necessary as soon as the trench was dug to rake the straight side, with an ordinary garden rake, in order that the soil as it dried and became crumbly, would fall off with any worms which attempted to climb up. Such raking is important, otherwise the soil becomes baked like cement and many of the worms will crawl up the side and reach the crop to be protected. When the army-worms reach the trench they are blocked by the straight side, and at once change their course, wandering along in the trench until they reach a post hole, into which they fall. When thus trapped they are easily destroyed by pouring coal oil into the hole, or by crushing them by means of the blunt end of a post. Many farmers in the recent outbreak who used coal oil, ignited the oil, thus having the added satisfaction of watching their enemy burn.

### Cooperative Fighting Effective

The value of cooperation in fighting injurious insects was again very apparent during the recent outbreak in western Ontario. It was most encouraging to see the spirit of cooperation which was present among the farmers, in the districts where serious damage was being done. Near Princeton, Oxford county, on July 19th, 25 farmers and six teams were at work digging a proper trench, and on this occasion it was amply demonstrated that no matter how big the armies of worms approaching might be, that they could be controlled by trenches correctly made. Another interesting record is the fact that on Sunday afternoon, July 26th, 50 men congregated on one farm in the township of West Zorra, Oxford county, to assist in the making of trenches.

In the province of New Brunswick ditches were dug in one instance by means of a traction ditcher. These ditches varied from 16 inches to two



Promptness and Thoroughness of Action Are Necessary to Crop Salvation. The illustration bears testimony to the cooperative spirit displayed by the farmers of Brant Co., Ont., in fighting the army worm during the 1914 outbreak. The same spirit actuated farmers in all the infested districts.

feet in depth, depending upon the evenness of the ground. The engineer in charge reported that 5,000 feet of trench were dug at an average cost of 22 cents per rod.

### Poisoned Bait

The poisoned bran mixture as ordinarily applied for cut-worms was used in many districts, some farmers reporting excellent results. In one instance in New Brunswick the poisoned bran was placed around the outside of the field and the farmer reported that the mixture had been very successful, "the ground being heaped with dead caterpillars in the mornings after it was put out." During the outbreak of the army-worm in Kansas, in 1914, the Kansas Grasshopper formula of poisoned bran was tested out and proved to be an excellent remedy. Prof. G. A.

Dean, Entomologist, Kansas State Agricultural College, Manhattan, Kansas, has given us the following statement: "During the recent outbreak of the army-worm we had a good opportunity to test out the efficiency of the bran mash as a means of control. Our results here were 100 per cent. effective. Several counties organized for this work, and every farmer who used the poisoned bran mash had excellent success. My regular men who were in the field report that they never found an insect so easily controlled as the army-worm was when it was migrating from one field to another. In the evening a strip of the poisoned bran mash was sown during the day simply because the weather was cloudy and the worms were moving during the main part of the day. This is especially true during one day when there was a slight rain. In many cases the army-worms were already in the

corn fields, but even here one application of the poisoned bran mash was sufficient. The bran mash was simply sown broadcast, some of it falling on the corn and the balance on the ground. The worms that were feeding on the corn crawled to the bran mash that had lodged on the blades and ate it in preference to the corn."

The bran was broadcasted thinly in such a manner as to spread 20 pounds over three acres. The mixture is made as follows:

Bran . . . . .	90 pounds
Paris green . . . . .	1 pound
Molasses . . . . .	2 quarts
Oranges or lemons . . . . .	3
Water . . . . .	3½ gallons

In preparing the bran mash, mix the bran and Paris green thoroughly in a washtub while dry. Squeeze the juice of the oranges or lemons into the water and chop the remaining pulp and the peel to fine bits and add them to the water.

Dissolve the molasses in the water and wet the bran and poison with the mixture, stirring at the same time so as to dampen the mash thoroughly. In our experiments with this mixture near Ottawa for the control of grasshoppers, the farmers prepared the mixture on the cement floor of a stable or other outhouse, stirring it thoroughly by means of an ordinary field hoe.

The results obtained with the mixture in Kansas are certainly very remarkable, and we have no hesitation whatever in recommending this new remedy for the army-worm whenever the insect should again appear in destructive numbers in Canada. It will also undoubtedly prove equally useful in the control of ordinary cutworms. The mixture should be broadcasted early in the evening so that it will retain the moisture and be in the most attractive condition when the worms feed at night.



The Essentials: Plowing, Deeping and Trimming the Furrow and Digging Post Hole.

Another Western Ontario scene during the 1914 outbreak. Shallow trenches with sides left rough were not efficient in checking the ravages of the army worm.

\*Cuts courtesy Entomological Branch.

# A Nation of Small Farmers

Dr. Jas. W. Robertson, in Report of Royal Commission on Industrial Training

DENMARK is a country whose geographical position, area and population permit it to be thought of as a whole in such a way that lessons from the development of its agriculture and rural education may be understood. It consists of the peninsula of Jutland and of a number of islands in the Baltic Sea. The area is about 15,500 square miles. Its population in 1911 was 2,767,076, almost wholly Scandinavian, only 3 per cent being foreign born.

The area of land in farms is 8,172,880 acres, and a good deal of it is of indifferent quality. The rural population amounts to 90 persons per 100 acres.

**Frugality and Cooperation**  
The country is one, in the main, of peasants and small farmers. They had the appearance and bearing of intelligent, well-dressed and well-to-do farmers. The farms, almost without exception, showed every outward sign of frugal prosperity. The farmers seemed satisfied with their lot, their progress and the outlook for the future.

Notwithstanding a moderate stream of emigration (8,890 in 1910), there has been a steady and considerable increase in the rural population. The numbers of the rural population, in round figures, are given as follows: In 1850, 1,400,000; in 1900, 1,600,000; in 1910, 1,700,000.

Various observers and students of agricultural situations with whom the question was discussed in Denmark and elsewhere, attribute the country's marvellous progress to different causes, or lay emphasis upon one or other of different factors. It is admitted and asserted by many that Denmark owes its prosperity in large measure to the cooperative movement. Others, perhaps exercising greater insight, attribute the progress of the cooperative movement itself, and the concurrent advance in agriculture, to the character of the Danish people, which made cooperation practicable and made them desirous of joining in it.

**Intellectual and Social Preparation**  
What is noticeable is that the masses of the people on the farms are advancing together; that their leaders come from all ranks; so far as the cause of the holders is concerned; and that whatever has been found to be a good plan or an excellent practice in one locality quickly becomes the knowledge of all the farmers, and is applied with the modification necessary to suit their conditions. In the cooperative organization the Husmand, with a holding of only a few acres, has one vote; the larger farmer, with many times the quantity so more. This recognition of the human, rather than only the property interests involved, is worth thinking about.

It is not probable that the Danish people would have been able to follow out the improvement of their agriculture, to organize cooperative creameries, packing factories, etc., and to profit by the inventions of the time had they not for years been the beneficiaries of processes of intellectual improvement. When cooperation became necessary to enable them to hold their own and to capture the British market for butter, bacon, and eggs, they were intellectually and socially able to develop it.

The following table indicates something of the rapidity and extent of the change in the agricultural industry during the past thirty years:

	1910	1900
Exports, butter	\$9,500,000	\$50,300,000
Exports, bacon	2,400,000	34,000,000
Exports, eggs	300,000	7,000,000

Total.....\$11,600,000 \$91,600,000

**Intelligence and Persistence**  
The improvement in the raking cows fur-nishes another example of the intelligence and persistence with which the people have cooperated to improve their instrumentalities of production. The soil fertility has been increased by better systems of cropping, and the land further enriched by the manure from the immense quantities of grain and other feeding stuffs imported from abroad. At the same time the improvement in the productive capacity of the individual cow has been much more notable than the growth in the number of animals. The following table sheds considerable light on that situation:

No. of Milking Cows	Value of Milk Exported
1893 .....	1,011,960 \$18,790,900
1903 .....	1,089,075 40,200,000
1910 .....	1,395,960 80,649,000

The number of milking cows had been increased by less than 16 per cent, and the value of the butter exported had been increased by more than 169 per cent. The increase in the value of the exports of butter is not a true measure of the production of milk. However, one of the dairy authorities in Denmark states that better care and better feed, within the last 30 years, increased the annual

yield of milk about 3,000 lbs. a cow. That accounts for \$30,000,000 a year in butter. Professor Boggid, a great authority in dairy matters, puts forward the statement that the average yield of milk of the Danish cow in 1908 was 6,170 lbs. In the Isle of Fyon, which has some of the best land in the kingdom, 20,000 cows gave an average yield of 8,100 lbs. of milk each in 1910.

### Canadian Live Stock Values

VALUES are well maintained so far as comparison with the three years ending in 1914 is concerned; but during 1914 there has been a substantial reduction in the value of both of horses and of swine. It is a case of general complaint that the demand for horses other than for military purposes has fallen off, and that prices are less by from 25 to 40 or 50 per cent of the price of cattle.

Owing to the high price of grain the keeping of swine in the west is said to be no longer a paying proposition. Hogs have been sold for as little as 3½ cents a pound—and may have been marketed in an unfinished condition. On the other hand the price of cattle has been well maintained, and the average values for dairy cows and for other horned cattle are considerably above those of 1910. The averages per head for Canadian cow and calf lots, \$57 for milk cows, \$43 for other cattle, \$7 for sheep and \$12 for swine. The following is believed to be a rough approximation of the total value of Canadian farm live stock in 1914: Horses, \$371,430,000; cattle, \$207,181,000; sheep, \$14,651,000 and swine, \$42,418,000, or an aggregate of \$735,680,000 for all descriptions.

## The 'Phone in Rural Life

THERE may be things that have had more influence than the telephone in bettering conditions on the farm; but, for the life of me, I can't think of them just at this minute."

"And," chimed in the daughter of the house, after hearing this statement from her mother, the wife of a prospering farmer, "life would be frightfully dull out here, for me at any rate, if it were not for our telephone. I have just returned from school and am naturally accustomed to social life, especially after having had the constant companionship of my own little crowd for the past three years. You can readily see how much the telephone appeals to me when I tell you that it makes possible my getting together with my friends for an evening sociable in a very few minutes. In fact, it does away with that feeling of isolation my older sister used to complain about when I was a little girl and we had no telephone."

"All that's very true," said the mother, adding at this point, "and I, myself, certainly think that the telephone helps a whole lot in making life on the farm more pleasant from the social side. There are a number of neighbors who have called farm life extremely unbearable, even in the old telephone-less days, still there's no doubt but that it's more pleasant now."

"But the social side isn't everything. There's the domestic, the housekeeping side as well, which is of more importance to me, although my daughter may not think so yet," she like to call up my friends for a little chat during the day, and she says that will miss me and the other little things we women talk about. Who wouldn't? But what pleases me most is the help the telephone gives me in ordering things for the house. If I need anything from town, I telephone

to the particular store that carries what I want, tell the clerk to have the things ready for our wagon—you know men don't like to wait—or else tell him to send them out by horse, which is what I'll get them the next day. If that store doesn't happen to have what I want, I telephone to another store and order from there. So you see that between the telephone and parcel post my shopping and housekeeping are made very easy.

**As Good as a Contable.**  
"That isn't all, though. Did you ever stop to consider the fact that the telephone is a great protector for the woman who is left home by herself from the house? We farmers' wives are not exactly what you might call cowards; but somehow or other we can't quite get over our fear of the occasional 'strong arm' of the law. One afternoon last week a gang of men were in the fields, a rough customer walked in at the gate of a neighbor's house. Mrs. X—saw him from the upstairs window—and she didn't like his look. She thought for a telephone and immediately went to it. The tramped open the door, saw what she was doing, and made tracks for the road. They caught him at the village and then ran him out of town."

"There are only some of the advantages that I could mention; but I guess I've given you some idea of what the telephone means to the woman in this community. The wouldn't it be like that for you? Well, let's say—"a farm!"—"Nor West Farmer."

"The meanest man in the world," says The Western Farmer, "is the one that will mistreat his wife. Why, I wonder the other little thing that has been born to her. Her whole life is bound up in that calf. Be kind, be gentle and be-a man."

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**Late Blight**  
ATE Blight the fields are about disease first on the face of the potato. To detect this disease morning when it leaves. At the of white mould disappears as the day increases. found on brown leaves. That which irregular in the beginning of the leaf. As more intense, it fire time. They of early death yield of potato bin of potatoes. Spraying the Blight. Hordford found the most common home-made mixture than the prepared mixture, such sulphur have tory. Lead in and often zies. The principle of a spray to upon the most these diseases, causing the blight wind from field plant to plant. leaves and the film Bordeaux face of the leaf when it alights mass.  
Making the actual for tion of Bordeaux pounds of copper and five upon gallons of water must be dissolved. The work often good. First of phate in about and then diluted up 25 gallons. solution. The tempt at form allow the lime gradually bring 35 gallons solution. The phate solution quires two ta at least 25 gallons.  
Paris green copper sulphur which will kill one to two every 50 gallons is used. It can be made in a pot.  
Apply An even dist on the surface ly important. suits the spray a constant high es should g spray. Some deaux per acre is necessary. Blight is severing per season first spraying on when the high. Success low at interva

## ORCHARD AND GARDEN

### Late Blight of Potatoes

LATE Blight makes its presence in the fields known when the vines are about 10 inches high. The disease first appears on the under surface of the leaf. The best time to detect this disease is early in the morning when the dew is still on the leaves. At that time slight growths of white mould will be seen, which disappears as the temperature of the day increases. These growths will be found on brownish-black spots, somewhat irregular in outline and occurring in the beginning near the edge of the leaf. As the disease becomes more intense, it spreads over the entire vine. The result of this disease is early death of the vines and a small yield of potatoes, diseased vines.

Spraying the vines prevents Late Blight. Bordeaux mixture has been found the most efficient mixture. The lime-made mixture is by far better than the prepared mixtures sold on the market. Substitutes for Bordeaux mixture, such as lead arsenate and sulphur have been found unsatisfactory. Lead arsenate is slow in action and often clogs the spray nozzles.

The principle involved in the use of a spray to prevent blight is based upon the method of the spread of these diseases. The small germs, causing the blight, are blown by the wind from field to field and from plant to plant. The germs fall on the leaves and there germinate. A thin film of Bordeaux mixture on the surface of the leaf will kill the germ when it alights and thus prevents disease.

### Making Bordeaux Mixture

The usual formula for the preparation of Bordeaux mixture is five pounds of copper sulphate (blue stone) and five pounds of stone lime to 50 gallons of water. The two chemicals must be dissolved separately. The weights should be accurate. Guess work often causes more harm than good. First dissolve the copper sulphate in about ten gallons of water, and then dilute the solution to make up 25 gallons. Then in another tank add the lime before making an attempt at forming a solution. Then allow the lime to dissolve in water gradually bringing the solution up to 25 gallons. Then stir in the lime solution and pour into the copper sulphate solution. This process requires two tanks capable of holding at least 25 and 50 gallons.

Paris green can be added to the copper sulphate and lime mixture, which will kill insects. Usually from one to two pounds of Paris green for every 50 gallons of Bordeaux mixture is used. In this manner, one spraying can be made to serve a double purpose.

### Applying the Spray

An even distribution of Bordeaux on the surface of the leaves is highly important. To obtain the best results the spray machine should provide a constant high pressure and the nozzles should give a fine, mist-like spray. Sometimes 50 gallons of Bordeaux per acre is sufficient. If more is necessary it should be used when Blight is severe. At least three sprayings per season should be made. The first sprayings should be carried on when the plants are eight inches high. Successive sprayings should follow at intervals of two weeks.

The use of Bordeaux not only prevents blights, but also stimulates potatoes to vines to greater starch production. This is brought about by a prolongation of the life of the vines. Three successive sprayings during one season will prolong the life of the vines for two weeks. This length of time during the most important period of the life of the vines mean an appreciable increase in yields. In years when blight has not occurred, sprayed fields have yielded a profitably larger crop than unsprayed fields.

### Summer Pruning

By E. P. Sandsten.

THE importance of summer pruning young apple trees, is little understood by many fruit growers. The habit has become so firmly fixed that all pruning is invariably done during the late winter or early spring months.

While winter pruning will always be most important, because less injury is done to the trees at this season, especially to old bearing trees, yet for the best success with young trees, summer pruning should be as regularly performed as winter pruning. After the shape of the tree has been obtained through winter pruning, the filling out of the branches and the trunk should be accomplished by summer pruning.

This is especially true during the fourth and fifth year after planting. As a rule, most fruit growers prune their young trees too heavily during these years. Growth becomes too excessive, especially in length, and the branches do not become properly branched after planting. In summer pruning is done between the middle and the latter part of June, when the growth in length has reached from 12 to 15 inches, by cutting off the terminal growth, it will invariably check the growth length and increase the thickness of the trunk and branches. Further, it tends to produce fruit spurs by checking the flow of sap.

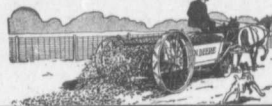
### Thinning Fruit Spurs

Summer pruning may also be practiced on older or bearing trees in connection with the thinning of the fruit. In this case there is very little occasion for cutting and pinching off the terminal shoots, as older trees make little or no wood growth, and cutting out a number of fruit spurs will give a larger amount of food supply for the remaining ones and the size of the fruit borne is greatly increased. Many orchardists are troubled with over-bearing, that is, most of our trees have too many fruit spurs, and set too many fruits, making it difficult to obtain the proper size. While thinning should be applied by removing them after the fruit is set is a remedy against over-bearing, yet this is less efficient than the actual removal of a certain number of fruit spurs. In cutting out the fruit spurs they should be cut off close to the branches, and in such manner as to leave the remaining spurs well distributed on the branches.

The time for this kind of thinning or summer pruning is after the apples are well formed and the June drop is past. The operator can then gauge the number to be removed or left, without any difficulty.

A pair of light pruning shears is the best tool for this purpose

# John Deere Implements

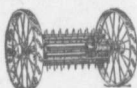


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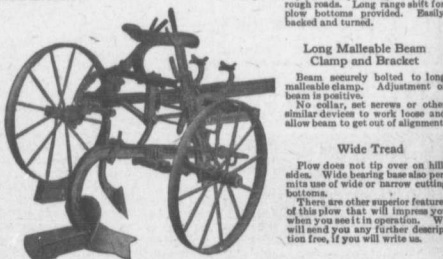
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1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-





# FARM AND DAIRY

## AND RURAL HOME

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### A Live Stock Market's Policy

THE press recently announced that Hon. Martin Burrell was about to initiate a comprehensive markets propaganda in the Live Stock Branch of this Department. An outline of the scheme is now before us. It involves the organization of an "Intelligence System," which shall provide for (a) statistics of animal population and production; (b) information regarding the home markets; (c) information regarding the foreign markets; and (d) distribution of the information collected to the producer. The scheme also includes the organization of farmers for cooperative action in the sale of poultry and live stock products, the promotion of the sale according to grade and the cooperation of all interests in the development of the live stock trade. This markets policy will be administered under the immediate direction of Mr. H. S. Arkell, and the present organization of the branch will be made use of to the fullest extent.

The feature of this policy that will redound most largely to the benefit of producers, will be the collection and dissemination of marketing information. This information is essential to intelligent marketing. In the past the big packing houses and commission firms have had their own intelligence systems, and this has given them a decided advantage over the producers who have had to sell "in the dark." The business of the individual farmer has been and is too small for him to finance such an information bureau as it is now proposed to establish in connection with the Live Stock Branch. It is true that in the case of the grain growers of the West and the fruit growers of Nova Scotia, the producers themselves have established, through their cooperative societies as efficient intelligence bureaus as those possessed by private corporations. The live stock interests, however, have never been so organized as to

make such intelligent marketing possible, and the Minister's present scheme has in it the possibilities of great good to the industry. At present, however, the system is only in its formative stages, and its value as a Government activity has yet to be demonstrated.

### Where the Dollar Goes

INVESTIGATIONS conducted by a New York state commission a few years ago led to the announcement that of each dollar paid by the consumer for food products, the farmer receives only thirty-five cents. Consumers hailed this announcement as a full and complete explanation of the high cost of living. Farmers used it as an explanation of why they could not make bank interest on their investment or compete with city employers in paying wages to labor. Growing out of the discussion that followed the publication of results by this commission, the formation of consumers' leagues was greatly accelerated; consumers were determined to get their share of that intervening sixty-five cents. Farmers' cooperative societies were instituted for the same purpose. Middlemen generally came in for violent abuse.

The chase after that sixty-five cents is now beginning to lose its impetus. Both producers and consumers are beginning to find that such a wide spread as sixty-five cents rules only on products that are highly perishable or very costly in distribution. Consumers' leagues have found that to give members the same service as the middlemen are doing, they must charge approximately the same prices. Farmers have found the direct road to the consumer beset with many obstacles. Great benefits have been derived from cooperation and greater benefits will accrue in the future, but our best-informed rural cooperators do not now talk of eliminating all middlemen.

On the whole, the revelations of the New York commission, and others since appointed, have been productive of some good—and more harm. The most unfortunate result has been the deflection of public attention from the real evils that are making the problem of getting a living more difficult for both producers and consumers. The monopolization of all natural resources—land, mines, water powers, forests, etc.—the giving of valuable franchises to public service corporations with no commensurate return and the building up of tariff walls, are all greater evils than the so-called exactions of the middlemen. In fact, a large part of the toll which the middleman is obliged to take, finds its way into the pockets of landlords and other holders of special privilege. Commissions of the future, appointed to inquire into the high cost of living, must delve deeper than commissions in the past have done if their work would be of any permanent value.

### Crops or Weeds

WEEDS, when grown in competition with crops, are able in many cases to remove more plant food from the soil than the crop planted in the regular way. Just how serious is this drain of weeds on plant fertility, has been made very plain by recent investigations at the North Dakota Experimental Station. In one instance, the weeds contained one-sixth more nitrogen and one-third more phosphoric acid than the wheat amongst which they grew. In another case, the weeds extracted twice as much nitrogen and two and one-half times as much phosphoric acid from the soil as the wheat with which they were competing. Weeds grown among oats contained ten-elevenths as much nitrogen and five-sixths as much phosphoric acid as the oats.

These investigations make it very clear why crops and weeds cannot thrive side by side.

They only serve, however, to verify what every good farmer has always known. One of our farmer friends, who is an excellent manager, once remarked to us in the course of a discussion that "he never saw a good manager and a good lamb's quarters growing side by side; if the lamb's quarters were in the centre of a hill of potatoes, the tubers from that hill were invariably poor and small."

Thus do carefully conducted investigations and the observations of practical men combine to show the necessity of fighting weeds year in and year out. Incidentally we might remark that the greatest single measure that can be adopted in the battle with weeds is a short systematic crop rotation with a clean hoe crop or regular intervals.

### Selecting Our Neighbors

THE choice of a farm involves more than a consideration of soil, climate, markets, buildings and fences. When we buy a farm to live in, we adopt a community to live in. There are many instances on record of farms selling for less than their economic value because of disagreeable neighbors. We know, too, of people who have refused to sell when they received a good offer because the "neighbors are so nice."

The neighborhood factor is one that should never be forgotten when we think of making a change. We men may be able to get along without neighbors, but to the women of the family a certain amount of society is a necessity. Community life, as represented in the church and its organizations, the Women's Institute, or just plain "neighborhood" means much to the farm woman, and if she is denied such social intercourse she is certain to be discontented, and discontent is contagious. We may well be as careful in selecting our neighbors as in selecting our soil.

### An Age of Big Business

AN Ontario farmer with a load of hogs to sell wrote a big packing concern for a quotation on his ten hogs. In reply, he received a courteous letter referring him to their local buyer. In a neighboring township a farmer's club has been selling hogs to the same packer direct; but they make their shipments by the carload.

Milling companies refuse to deal directly with individual grain growers, but are glad to open business relations with those same identical individuals when they organize themselves into an elevator company of grain growers association. This is an age of Big Business. Time is money to the manager of a big concern. He buys a carload of hogs or a trainload of grain in less time than his father dickered over the purchase of a half-dozen hogs or a few sacks of wheat. If farmers desire to eliminate the local buyer and the profits that he must make in order to live, and do business directly with the big packers and the big millers, then they must be able to sell to the big business man in the quantities in which he deals. Similarly, in buying goods the manufacturer and big wholesaler will not deal with individual farmers, but in almost all cases they welcome the trade of organized farmers who order in large quantities. If we would deal with Big Business, we must do it in a big business way. We must ship our grain in 10,000-bushel lots, our hogs in carload lots, eggs by the dozen cartons, apples by the boatload, and so on through all the list of our products. The present cooperative movement among farmers is an endeavor to do farm business in a Big Business way.

I am satisfied that all human beings are entitled to the essentials of life, that is to say, water, to air, and to land.—Robert G. Ingersoll.



### Farmers Do

THE volume done by the Cooperative last February that exceeded \$100,000 worth of last month, it was estimated that, when came, there would be off in business. sent at the meeting, Committee, clearly, showed doing much better than expected. month of March during April to new record and Sales for the increased those for alone last week for \$2,000 worth of farmers who have people who do not will not patronize companies, will find interesting.

Salt Company, a meeting which was started in Granage and in which a Ontario hold Farmers' Company its stock from the pany. The man's annual meeting sent them this over a hundred many orders that they all and the the company is its plant in order firms more prominently officers of the many have arrived with the United tive Company on

### The Binder

The United Farmers' binder twine that it has all been car loads were Toronto, two went to and Petrolio. M out to local point the company refused no interest in the posed of that man Secretary M there is likely to situation next fall need trade. The Farmers' Company of the big seed could buy seed firm refused to c many stating the through its local this Company Farmers' Company v have quantities away considerable to cut prices trade. There is next winter the deal up to under Company. It is that the local Farmers' C asked to order the Farmers' C price being fixed the Farmers' C to set prices that need, it not better price set by any The dealer is the Company sets a

# In Union There is Strength

A Department Devoted to Cooperative Agriculture

## Farmers Doing a Big Business

THE volume of business being done by the United Farmers' Cooperative Company, Ltd., is exceeding all expectations. When last February the company did over \$300,000 worth of business during the month, it was felt that it was fine, but that, when the spring season came, there would be a large falling off in business. The reports presented at the meeting of the Executive Committee, held in Toronto recently, showed that the company is doing much better than could have been expected. Sales during the month of March amounted to \$23,196, during April to \$39,169, making a new record and in May to \$19,058. Sales for the month of June will exceed those for May. On one day alone last week orders were received for \$2,000 worth of woods. Those people who have been saying that farmers can't cooperate and that they will not patronize their own companies, will find such figures as these interesting.

Secretary J. J. Morrison attended the annual meeting of the People's Salt Company at Kincairdine recently, which was started by the old Dominion Grange and Patrons of Industry, and in which a good many farmers in Ontario hold stock. The United Farmers' Company has been buying its stock from The People's Salt Company. The manager reported at the annual meeting that the farmers have sent them this winter, orders for over a hundred carloads, in fact, so many orders that they could not fill them all and that they had been stocked up at times on that account. The company is planning to enlarge its plant in order that it may fill orders more promptly hereafter. The officers of the People's Salt Company have agreed to work together with the United Farmers' Cooperative Company on the best of terms.

### The Binder Twine Trade

The United Farmers' Company has received from Ireland the 165 tons of binder twine that were ordered and it has all been distributed. Three car loads were distributed from Toronto, two went to Palmerston and a fourth to Belleville, Preston and Petrolia. Many tons were sent out to local points. The officers of the company report now that they did not order 300 tons from Ireland instead of 165 as they could have disposed of that many.

Secretary Morrison states that there is likely to be an interesting situation next fall and winter in the seed trade. Last winter, when the Farmers' Company approached one of the big seed firms to see if it could buy seed from this firm, the firm refused to deal with the Company, stating that it had to deal through its local agents. Later, when this company found that the Farmers' Company was handling such large quantities of seed and taking away considerable of its trade, it began to cut prices in order to hold its trade. There is every prospect that next winter the seed firms may endeavor to under-sell the Farmers' Company. It is probable, therefore, that the local Farmers' Clubs will be asked to order their seeds through the Farmers' Company without a price being fixed, beyond the fact that the Farmers' Company will guarantee to set prices that will be equally as good, if not better, than the lowest price being set by any of the seed firms. The danger is that if the Farmers' Company sets a price, the seed firms

will then set a lower price in order to injure their business. If the Farmers' Clubs will order seeds on the same basis that they have ordered for this year, it will be impossible for the seed firms to under-sell the company.

### Organization Work Proceeding

Officers of the company have been attending meetings of clubs and farmers' picnics recently. Secretary Morrison reports that there is a growing demand for the creation of a stronger agricultural sentiment. In those sections where the Farmers' Clubs are well organized and active, meetings are being held and speakers are in demand. In those sections where the Farmers' Clubs are not well organized, agricultural sentiment is weak.

Mr. A. E. Vance, of Forest, a director of the company, reports that another branch of the United Farmers of Ontario has been organized in Lambton county. The president is David White and the secretary Matthew White, whose address is Forest, R. K. No. 5. Mr. Vance has asked that literature be sent him for use among prospective clubs in the district. There are four at Forest now and several more may be organized shortly.

Mr. R. H. Halbert, Melancton, in Lufferin county, president of The United Farmers of Ontario, has organized another branch of the United Farmers of Ontario at Primrose, Ont. The secretary is Wm. G. Halbert, Camilla, Ont. (R. R. 1). This branch has subscribed for one share of stock in the Farmers' Company.

The Association is getting so many calls for meetings, picnics, etc., that it is finding it next to impossible to attend them all. On the first of July, the president and manager, Mr. Anson Froh, was to speak at a picnic in Huron county. The financial statement of the company in to the end of May showed a handsome surplus of assets over liabilities and a satisfactory statement of revenue and expenses.

The first monthly Trade Bulletin has been issued. It quotes the latest prices on the different lines of goods handled by the company and gives information in regard to them. These circulars are going to be of great value to the company as well as to its different branches throughout the province.

### A B. C. Optimist

Jas. H. H. Nelson, New Westminster Dist., B. C.

WE are located on the North Thompson River at the mouth of the Barriere, on the New C.N.R. line. I have 16 acres and a herd of six Jersey cattle, registered stock. I run a small sawmill as well. I am also secretary-treasurer of the Barriere Farmers' Institute of 100 members.

I think our country is going to open up very rapidly after this dreadful war is over. We have some very fine ranches, but held in by blocks of from 700 to 2,000 acres. I do not think, however, that this state of things will last much longer. The railway will soon be open, and then new people will come in, as we have an ideal climate here for mixed farming: not too cold, nor too hot, about 1,200 feet altitude. On an average there is about two feet of snow in winter and the temperature drops about 30 below zero for probably two or three days each winter. It is very calm, though, and bright sunshine.



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## Ideal Green Feed Silos

are being used by thousands of Canadian farmers who are making bigger profits than before they erected a silo.

An Ideal Green Feed Silo will pay for itself over and over during the many years' service it will give you. Don't look upon it as an added expense and put off buying. It is an investment that is absolutely necessary to prevent expense and waste on your farm.

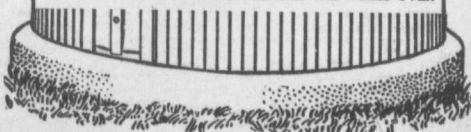
Silo filling time will be here almost before you know it, so you should not delay getting your order in at once. Bear in mind that it takes a little time to erect a silo and that it costs less to do the work if you have plenty of time and do not have to go to the expense of hiring extra help to rush the work through. There is nothing to be gained by delay, and much to be saved by prompt action.

Ask for prices, terms and complete information. Our silo catalogue, which will be gladly sent on request, shows every detail of the Ideal Green Feed Silo and explains fully why this silo gives you more for your money than any other silo you can buy.

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FARM AND DAIRY - PETERBORO, ONT.



# The Upward Look

## The Big Little Things

It is a characteristic trait of mankind to desire to do something great—something that will call forth public attention and make our name popular in our community. The little "homely" tasks which are performed by us unnoticed by anyone, are probably the home folks, doing the duties that most of us have a tendency to shirk. And yet the performing of these big little things, does the true spirit, makes all the difference between happiness and discontent in the home. Here is an illustration of what we mean by the big little things:

"It was after supper, and the big boy was stretched comfortably where he could see the yellow light stretching across the level of the water. He was weary men a long day under the summer sun, but the day's coming was suddenly out of the door, didn't show that. All they knew was that he was giving them lessons and this was his leisure hour."

"The big brother looked at the boys reluctantly an instant later, sitting upright, all attention, he began to beat time. The boys, serious, standing straight upon the quiet of the room, were severely criticized and made them again and yet again, and then a lesson finished as usual with the boys had beaten the march for many days, and sending its rousing notes up and down the valley, till he struck against the hills and echoed back to the delighted listeners."

"Back went the drums to their sides in the hall and off to bed went the youngsters, content, leaving the content."—M. M. R.

## Day When Everything Goes Wrong

With the Household Editor.  
THAT farm woman has not experienced "the day when everything goes wrong?" Probably the night before we have worked late at new dress for Nellie, and rise the morning tired and unfit for the day's duties. Determined, however, to get through a big day's work, we get out to both wash and bake in bustling around gathering the weekly wash and mixing the sponge, the porridge is neglected and becomes badly scorched. The men have forgotten to fill the rinsing water for the day and we have to make several trips from the distant pump, laden with heavy pails of water. Soon the fire, the clock point is a quarter past, the fire won't burn, dinner isn't cooked on time, and we are on the verge of hysteria.

For whom should we lay the blame everything going topsy-turvy? Are ourselves not to blame? In the place we were unfit for our day by working overtime previous evening. Then we tried to do two big jobs, baking and washing, into one forenoon. Another reason why we should blame ourselves is because we were working hard labor saving conveniences, for hot water on tap. As a rule, most folk are blamed for not using conveniences in the home, but not the fault of the women, too, that we do not realize that these conveniences are necessary if we are

to do our duty to our family and ourselves.

Women as a class tend to be more saving than menfolk and hesitate to spend money for anything that they feel that they can do without. At times, however, we believe that spending is a good way to save,—at least when we spend to purchase labor-saving devices. They save time, health, and money in the bank to a man to have his wife happy and satisfied with her home and surroundings. Two things, then, we should keep in mind,—first, in order to keep ourselves up to date and systematize our work to make it as light as possible, and second, that labor savers are not luxuries, but necessities. If we keep these ideas before us "the day when everything goes wrong," should not occur very frequently.

## OUR HOME CLUB

### "A Rolling Stone"

I AM one of the subjects of the hired man problem, having just got back to the land after working for over 50 years in the towns and cities of this country of the fifty States. My boss takes Farm and Dairy as an I have a little time at night and on Sunday for reading in your discussions of the hired man problem.

The young man I work for is 27 years old, and although a fine young man in every particular, he has never been long out of this neighborhood. Both his education and his experience have been very limited. His wife is a daughter of a neighboring farmer, and is not without some accomplishments. She plays and sings a little, but is rather poorly educated, and has never seen the world outside of an occasional trip to visit her city cousins. They appear to live very happily together.

For myself I am 50 years of age, and was born and brought up on an Ontario farm. I received a good public school education, and afterward helped my father on farming operations until I was twenty years old. I then decided to strike out for myself and engaged with a maz, in a neighboring town to learn the plasterers' trade. Since then I have indeed been a rolling stone, and have never spent two years in the same place since completing my apprenticeship.

It is said that travelling is a good educator, and I think this is especially true on this continent. If one goes to the newer districts he will there see men from all over the world who have been attracted to this continent. In the West I have seen Crooketers and Menonites living in their villages and driving out to their farms just as they do in their native country. In San Francisco I have seen the Oriental sections in which the Chinaman and Japs have duplicated oriental life as nearly as can be on this continent. In the 30 years of my travels I have met all kinds of men and seen life under a great many aspects. In short, I have received at least some of the benefits derived from travelling.

During my travels I also had an opportunity of seeing some of the best laborers and hearing some of the best lectures. As I usually received good wages I could well afford to spend considerable for my own amusement. I have also been a wide reader, and having had free access to the public libraries of the cities in which I have worked, I have become tolerably familiar with some of our best authors, and have done a little into philosophy and sociology. I have even done a little speaking for the Socialists and feel somewhat confident

of being able to hold my own upon a public platform.

Well this spring when conditions got so bad in the city, I found myself enlist, though I should very much like to have done so. Hearing, through the Patriotic and Production Campaign that the man who helped till the land was rendering a service to the Empire as the one who fought in the trenches, I decided to get out into the country and get a job on the farm. As a result I am now, as I said, working for this young man.

Though I had been brought up on a farm I felt a little awkward at first in doing those things with which I was once so familiar. I had forgotten a good deal about farming in 30 years. However, it soon came back to me, and I believe that I am now giving good satisfaction and being looked upon as a good farm laborer.

It is said that no social distinctions exist in the country, but, curiously enough, the only unsatisfactory part of my farming experience is of a social nature. When I first came out here my boss and his wife were greatly interested in my experiences. I told them concerning my trip in this neighborhood. I soon found that when the neighbors called at the house they would collect around me in order



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P-8



The Children's Playroom

Mr. F. McCann, Oxford Co., Ont. ONE of my most pleasant childhood recollections is the playroom in which my sister and I spent so many happy hours. We also spent a goodly number of unhappy moments in that selfsame room, for like all children, we had our disagreements. The pleasures associated with that particular room, however, outweighed the petty quarrels many times over.

So prominent a place did our playroom hold in my young days that I have one in my own home, and believe the children enjoy it quite as

tables or stands on which many little nick-nacks dear to the heart of the child may be arranged.

One corner of the room is fitted up with a few toy articles of kitchen equipment, such as a broom and dustpan, dishes, a table, a miniature stove, and go forth. All these articles have a special place when not in use, and the keeping of this room in systematic order I consider a splendid training for the children. They take pride, too, in the neat appearance of their "little home."

For the busy housewife, who has never tried this plan of a special playroom in the house, I would suggest that she try it out. Probably if the

Jabots, Scallops and Stripes Discussed

Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folk. They can be related when in the latest modes and include the most modern features of the paper patterns. When sending Farm and Dairy your order please be careful to state the number of the pattern you wish for children and the number of pattern desired. Price of all patterns to Our Folks, 10c each. Address all orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



Women Folk. It has the latest style features, showing the bolero and tier skirt also the high rolling collar. If made from sheer material such as white muslin, crepe or voile and trimmed as shown with lace, this model would make a very dainty summer dress. It would also be attractive in some of the lowered materials. Four sizes; 14, 16, 17 and 18 years. 1281—Ladies' Shirtdress Dress.—The model here shown is severely plain, and should be easily constructed. All the trimming necessary is the pocket on the skirt and buttons down one side of the blouse and portion of skirt. Low collar and short sleeves could be adapted to this style quite nicely, as shown in the small front view. The model calls for two patterns, 1032 and 1281. The blouse is cut in sizes from 34 to 44 inches bust measure, and the skirt from 22 to 32 inches waist measure. 1294—Ladies' House Dress.—The popular vest, striped materials would fit in splendidly in constructing this house dress. The new collar and cuffs would look attractive if made from plain material. If desired, one might have buttons and buttonholes down front of skirt, which would make the dress very easy to unbutton. Six sizes; 32 to 42 inches bust measure. 1276—Lady's Dressing Sack.—Almost every woman, young and old, finds either a button or a dressing sack almost indispensable. This dressing sack would be put to good use by any couple of pairs of shirting at the waist line and dainty lace forms all the trimming necessary. Three sizes; small, medium and large. 1276—Lady's Nightdress and Cap.—This gown and cap require 4 1/2 yards of 36 inch material and would be prettily made from cotton crepe, trimmed with tulle and lace. Crepe cloth is finding a large place in many homes on account of its saving so much ironing. Three sizes; small, medium and large.



An Ideal Vacation Site: Camping on the Ottawa River.

much as I used to do. Some people, I believe, have the idea that a room specially designated for the use of children, is more of a city idea, but you can assure you that the country is an ideal spot for just such a room. There are lots of days, both in winter and summer, when indoor amusement has to be resorted to. Our playroom is upstairs, being a room that we did not need as a bedroom. It is furnished simply, but is attractive. The floor is covered with matting, which is much easier to keep clean than carpet, and at the windows hang chic muslin curtains. Several packing cases divided into compartments and covered with cambric, are used as dolls' trunks, a place for toys, and the tops of the boxes serve for

children are very small, a room downstairs (that bedroom off the dining-room, if you happen to have one) would be more satisfactory.

The Flies' Revenge

TEN little flies All in a line; One got a swat! Then there were..... Nine little flies Grimly sedate; Licking their chops.— Swat! Then there were..... Eight little flies Rabbing some more.— Swat, swat! Then there were..... Four little flies Colored green-blue; Swat! (Ain't it easy?) Then there were..... Two little flies Dodged the civilian— Eddy next day There was a million! —Buffalo News.

This Precocious Generation

WILLIE looked solemn and was evidently thinking. Papa was reading and mentally shut in from the world. "Papa," said Willie. "What is it, son?" "Do they get whalebone out of whales?" "Yes, my son." "A moment more of thought and then: "If we were in Cork would we be corkers?" No answer. "Another slight interval. "Papa, are boys that shoot crackers cracker-jacks?" Papa still silent. Discouraged with his quest for information in that direction, Willie turned to his ma. "Ma, when women wear hoops, did Indian squaws wear war-hoops?" Papa turned with emphasis: "Willie, it is time for you to go to bed." Willie started, but turned at the door and innocently asked: "Is this house on sleepers because we sleep in it?"

CANADIAN PACIFIC

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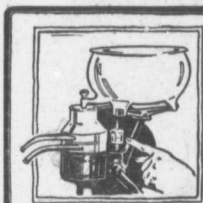
Steamers leave Port McNicoll Tuesdays, Wednesdays and Saturdays for Sault Ste. Marie, Port Arthur and Fort Williams. The steamer "Manitoba" sailing from Port McNicoll on Wednesdays, will call at Sault Ste. Marie, leaving that point 10:30 p.m. STEAMSHIP EXPRESS' sails Toronto at 12:45 p.m. daily, except Friday, making direct connection with steamers at Port McNicoll, on sailing days.

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### Standard Hand Separator Oil

perfectly lubricates finely adjusted and close fitting separator bearings because it is made for just that kind of work. It gives you the highest percentage of cream and the lowest percentage of repairs. There is nothing "just as good."

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## The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department in any matters relating to cheese making and to suggest subjects for discussion.

### Demand Your Rights

G. G. Pablos, Chief Dairy Instructor for Eastern Ontario.

M. R. FARMER, you are asked to cool your milk. Do you know why?

Cooling does not make the milk cleaner. It merely retards bacterial growth and the quicker the milk is cooled, the less the growth. These little plants called bacteria, require moisture, food and a suitable temperature to develop. They have these ideal conditions in the milk as soon as it comes from the cow, but cooling kills one condition—suitable temperature.

As I drive over this country I can go to one farm and find a supply of ice and a tank for cooling the milk and on to the next-door neighbor and find the cow sitting beside the roadside, perhaps on a covered stand and perhaps not. How much more does the first man get for his superior product than the second man for his inferior one? Nothing more, you say. No, Mr. Good Patron, and you won't get any more until you demand your rights.

### Economical Creamery Power

By A. H. Chapman, in The Creamery Journal.

THE operation of a creamery by internal combustion engines has passed the experimental stage, and is now a proven efficient and economical power.

The gasoline engine of to-day is so constructed, that if you furnish it with the right amount of air and a sufficient compression it will produce power whenever you apply a good spark within its cylinder. The most severe test to which such engines can be put is in a creamery where they operate power separators, and each year more and more such creameries putting in gas or crude oil engines to replace their old, worn out expensive steam engines. We put in an eight horse power gas engine in November, 1912, and it has never missed pulling out two power separators even though a single skimming during these two and a half years. The expense for repairs has been so small that it is almost not worth mentioning. We have put in a new set of piston rings and a new mixer, but the other repairs have been practically nothing.

#### Fuel Changes

Although I have been here only a short time before they put in the gas engine, I have obtained the cost of fuel before that time and it was a little over \$500 per year. Since installing the gasoline engine, we have done more business and have pasteurized all the cream, which was not done before, and our cost of fuel and power has been less than half what it was with the old steam engine. Last year our fuel cost \$187 and the gasoline was between \$50 and \$60 for the same time. On an account of selling gasoline to our patrons, the gasoline for our own use was not formerly separate, but I have kept track of the amount used and during the winter I was able to get along on less than 75¢ worth a week. During the flush it is about twice that amount. The buttermaker here formerly separated fuel for his own use, and on this account the per cent. of saving does not show up as well as it would if this amount were taken out of the total cost, but

while we used steam power and now. Thus the saving with our present outfit paid the cost of the change in a little over one year. The life of a good gas engine should be from 10 to 15 years, while the small boiler we use will last much longer than a large one would. If we received all hand separator cream, we would save even a larger per cent. than we can here. In a larger plant I think it would even be a saving to have one large and one small engine and then the larger one could be used while churning and the smaller while doing the other work.

### The Best Cheese Cow

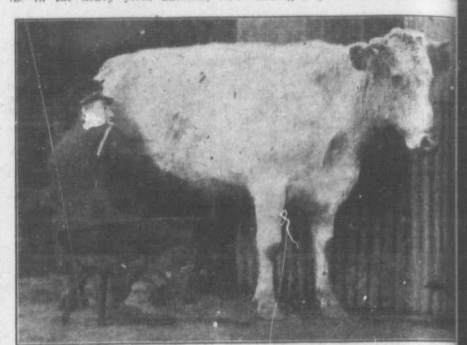
WHAT is the best type of cheese cow? This question was recently submitted to the readers of the N. Y. Produce Review for discussion. Commenting on the many answers received, the editor writes: "The question brings up again the old discussion of the 'cheese cow' as a distinct type. And under existing conditions in many sections of the cheese belt there can be no question that the 'cheese cow' is a distinct type—that the greatest profit goes in the long run to the dairymen who specialize in the heavy yield animals, and

to value of feed consumed. And this milk is paid for on basis of both fat and casein content, the basis of judging the most profitable cow change again. The manner in which milk is paid for is, therefore, an important consideration. "As a rule milk testing over 4 or 5 per cent fat is not considered as suitable for manufacture into a firm bodied cheese as lower testing milk. And it should be remembered that milk low in fat does not always yield a much lower cheese than milk testing high in fat. There is no constant relation between the amounts of fat and casein in milks of different cows and of different breeds.

"The important point for the dairyman to consider is this—the ability of a cow to keep a wide margin between the total value of her milk and the total cost of her feed is what constitutes a good 'cheese cow,' and no matter how the milk is paid for at the factory this relation of productive capacity to consuming capacity will be close watching."

### Greater Profit with Fewer Cows

Many dairymen could increase their income by the simple expedient of sending a part of their cows to



Turning His Farm Training to Good Account.

This illustration shows a member of the Canadian Expeditionary Force assisting in the milking on an English farm.

who sacrifice quality to quantity in breeding up (or down) their herds. The factor that is largely responsible for this premium on the low test heavy milking strains of cattle in the cheese belt is the still very prevalent practice among cheese factories of buying milk by the hundred pounds, regardless of composition. We do not mean to say that the adoption of the Babcock test as a basis for paying for cheese milk would banish the Holstein from our farms as a 'cheese cow'—in fact we are pretty sure that the test would not materially lessen the popularity of the breed in our cheese districts. But it would at least tend to divert our dairymen's attention more and more to the total fat producing capacity of the individual animals in his herd, rather than permit his interest to continue to centre on the total quantity each animal yields in a season.

#### It Depends on Method

"Where milk is pooled and paid for by the hundred pounds the most profitable cheese milk producer (to his owner) is the cow that yields the greatest quantity and value of milk in relation to value of feed consumed. Where milk is paid for by basis of fat content the most profitable cow is usually the one producing the greatest quantity and value of fat in relation

to value of feed consumed. And this milk is paid for on basis of both fat and casein content, the basis of judging the most profitable cow change again. The manner in which milk is paid for is, therefore, an important consideration.

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## Live Ite

Points from the FARMERS' Club total over 300.

Ontario's Hives have 14,000 members. Eighty-five thousand covered judging yearlings. The Department 100,000 bulletins in reports, in addition ports.

Local apiany days '05, were held for the beekeepers.

Foul Brood among a check by the management, does not prosper.

Seventy-five per cent placed through placement of Agriculture.

Thirty-three dairy employed by the Department dairy meeting attendance.

Thirty courses in farmers' canadians of the country last year by District.

Junior Farmers' associations are being ratio wherever you can find other courses.

Alfalfa is being parts of the province. The Department supply farmers with its climate.

At the Dominion Month many a farmer seed last year also serving to improve the district.

In the acreage produced 301 bushels of corn on one acre by a farmer at a cost of \$167.10 net profit of \$167.10.

The average net average highest last year. The profit competition 1914 was \$124.06, and this year was \$18.40.

Variable growers wanted of the necessary seed supply.

## The Far

I have resided for the central part of the year from a market. The Farm and Dairy idea as to why this ends its way to the controlling the village storekeepers, are largely Germans; hawkers say very little, if they purchase no farm produce to catch the full-stomach, mother cannot be sold in storekeepers in general operate with the nothing to assist them for a market for the purchase but get the price and put their own store.

I know many stores import from a distance. I sell one again based from the poor. If the village sports farm produce a pork, land, and the village market, mother have begun to change himself from cowkeeper to a dairyman. Now we consider a real dairy herd: "The difference here in profit between the best and the poorest was \$47.04.



# Live Items on Ontario's Agriculture

Points from the Annual Report of the Minister of Agriculture

FARMERS' Clubs in Ontario now total over 300.

Ontario's Horticultural Societies have 14,000 members enrolled. Eighty-five short courses in stock and seed judging were held last year under the direction of the Department.

The Department last year published 20,000 bulletins and 261,000 annual reports, in addition to 35,000 crop reports.

Local apary demonstrations, totaling 25, were held in the province last year for the better instruction of beekeepers.

Foul Brood among Bees, while held in check by the methods of the Department, does not seem to be disappearing.

Seventy-five per cent. of the farm herd placed through the Ontario Department of Agriculture, have been placed on yearly engagements.

Thirty-three dairy instructors were employed by the Department, and 232 district dairy meetings were held with a total attendance of 12,446.

Thirty courses in Agriculture for farmers' sons, and held in various sections of the District, were conducted last year by District Representatives.

Junior Farmers' Improvement Associations are being organized in Ontario wherever young men have taken short or other courses in agriculture. Alfalfa is being grown in various parts of the province under the direction of the Department, in order to supply farmers with seed suited to the climate.

At the Demonstration Farm at Montebello many settlers purchased their seed last year, and the farm is also serving to improve the live stock of the district.

In the acre-poist competition last year 501 bushels of potatoes were raised on one acre by a Middlesex competitor at a cost of \$32.62, and with a net profit of \$167.18.

The average net profit of the five winning highest last year in the acre-poist competition for potatoes totalled \$124.06, and that of the lowest was \$18.40.

Vegetable growers in Ontario are faced of the necessity of developing home seed supply, since the former

sources of supply, chiefly Germany and Holland, have been cut off.

There were 992 dairy factories in operation in Ontario in 1914, with 38,062 patrons; 161 creameries, with 36,634 patrons, and a total output of about 23 million pounds of butter.

In the dairy herd competition, conducted by the Dairyman's Association of Western Ontario in 1914, the first prize herd produced 7,923 pounds per cow for the six months from May to October.

Sweet clover, so long regarded as a weed, is attaining considerable popularity in some sections of the province as fodder, and is now being investigated at the Ontario Agricultural College.

The best cow of the imported Dairy Shorthorn herd at the Ontario Agricultural College gave 11,000 pounds of milk during her period of lactation, while four cows averaged 8,000 pounds during their period.

Experiments at the Ontario Agricultural College continue to show that the variety of oats known as O.A.C. No. 72 is still at the front in Ontario, and is being more generally grown by the farmers of the province.

The Department continues the work of making surveys and holding demonstrations in ditching and tillage-free of charge. Last year 250 surveys were made, covering 13,886 acres, and 1,673 miles of drain were laid.

Rural school fairs are helping to interest the youth of Ontario in the land. In 1914 there were 148 fairs held in 37 counties, including the children in 1,391 schools. There were 75,692 entries and a total attendance of 95,310.

A Cooperation and Markets Branch has been established by the Department in order to assist the agriculturist in solving marketing problems to deal in an educational way with such matters as the name of the branch would embrace.

To check Ontario "scrubs" and undesirable sires, the Department is proceeding to enforce the law which requires the compulsory inspection of stallions. This law provides that no grade stallion shall be allowed to stand or travel after August, 1918.



## "Metallic Siding"

Gives you an armour-clad building that defies time—weather—fire—storms.

When you put heavy, full gauge Galvanized "Metallic" Steel Siding plates on your building—you have a steel coat that simply laughs at old Father time. Handsome, easy to put on and fire retarding.

Needn't paint for years unless you want to—unlike inflammable wood that needs constant protection. "Metallic" plates are absolutely wind, snow, rain, fire and storm-proof. "Metallic" Patterns are many and pleasing, the Rock and Brick-faced being the most popular.

You shouldn't lose a day getting prices and designs for your home or barn or for that school, hall, hotel, etc., you are thinking about. Write us today and now.

**THE METALLIC ROOFING CO., LIMITED**  
WINNIPEG Manufacturers TORONTO

## You'll Find the Advertisers in FARM AND DAIRY

are reliable. They are advertising reliable goods. They want to know you; also want to know where you saw the Ad. When writing them don't forget to tell them you saw the Ad. in FARM AND DAIRY.

# What Ontario Farmers Think of Sydney Basic Slag

Mr. A. E. Wark, Wanstead, Lambton county, writes on the 23rd October, 1914, as follows:

"I may say that this year I won a handsome trophy donated by the Hon. W. J. Hanna, our Provincial Secretary, and valued at \$100, for the best four acres of corn in the County of Lambton. On the four acres I applied 1,600 lbs. Sydney Basic Slag last March (1913), and I honestly believe it helped wonderfully. I also applied 250 lbs. per acre on 10 acres of Fall Wheat this Fall and it looks at present magnificent. In the contest for Mr. Hanna's trophy there were 165 competitors, the largest field competition ever carried out in Ontario."

Agents wanted in districts where not already represented.

**The Cross Fertilizer Co. Ltd.**  
SYDNEY, NOVA SCOTIA

## The Farmer and the Village Store

J. R. Moore, Frontenac Co., Ont.

I have resided for many years in the central part of this county, and far from a market. I am going to the Farm and Dairy readers some ideas as to why the farmer's cash finds its way to the cities instead of patronizing the village store.

The village storekeepers, as I know them, are largely Jews, Syrians, and Germans; hawkers and pedlars who pay very little, if any, taxes. They purchase no farm produce. They are here to catch the farmer's cash with bolt-storm, moth-eaten goods that cannot be sold in the city. Village storekeepers in general will not cooperate with the farmer. They do nothing to assist the farmer in finding a market for his produce. If he purchase butter or eggs, they get the price and pay for it in goods at their own price.

I know many storekeepers who will import from a distance many things and sell out again that could be purchased from the farmers at their own door. If the village storekeeper imports farm produce of any kind, such as pork, lard, and many other things, he will cash it. If the farmer in the locality offers any of those things for sale at the village store, can he get the cash? No, he must take it, and the price set to suit the

storekeeper. These are facts which are hard to digest sometimes. This is why so many old stores in the villages of the north are unoccupied.

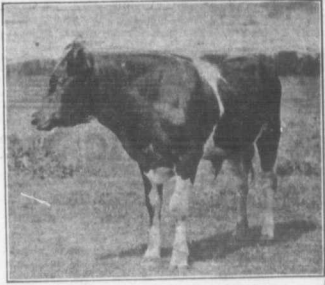
The village post office should never be kept in connection with the village store, especially now when we have parcel post.

It is too bad that the farmers of Ontario are not organized, and I trust that the United Farmers of Ontario will succeed. The merchants, grocers, manufacturers, etc., are all organized, but if any banker wishes to know the standing of a farmer in your locality, he asks the postmaster or the village storekeeper. That is a nice state of things, but it is true in the local districts.

Without the farmer we cannot live. He is the builder of the country. The farmer walks forth to the forest uninhabited and waste. He leaves his wonder-working wand; those dreary valleys smile with golden harvests, those barren mountain slopes are clothed with verdure, the farmhouses blaze, the anvil rings, the busy wheel turns round, the town appears the mart of commerce. The hall of science, the temple of religion rear high their lofty fronts. A forest of masts, gray with various pions, rises from the harbor. The farmers are the people who make this possible.

# Sires from 20,000 lb. Cows

Our herd has never produced two finer young sires than what we offer to-day. Both are sired by Sir Colantha Pieterje Korndyke, a son of the famous old Pontiac Korndyke—the greatest sire ever known for the production of quality daughters. Tipperary of Hillside, shown here with (13 mths.), is out of Buckleberry Invader (8659), who has produced 90,382 lbs. milk and 680 lbs. fat in R.O.P.



His Dam, 20,382 lbs. R.O.P.—His Sire, Son of Pontiac Korndyke

## Both Ready for Service

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

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His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### HILLSIDE PONTIAC BONERGS

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### HILLSIDE STOCK FARM

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### FROM CANADIAN RECORD DAM

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### RIVERSIDE HOLSTEINS

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### WALNUT GROVE HOLSTEINS

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### READY FOR SERVICE

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### HET LOO FARMS VAUDREUIL, QUE.

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

### HOLSTEINS

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

His dam, 20,382 lbs. R.O.P.—His sire, son of Pontiac Korndyke

# MARKET REVIEW AND FORECAST

**TORONTO, Monday, July 5, 1915.**—The optimistic feeling that always prevails as an agricultural country when the crops begin to be harvested is becoming general. Fruit has been coming to market for some time, and in this business wheat and wheat flour are ready for the binder. Pastures are good, the milk flow has been keeping up well and the prices realized for butter and cheese have been exceptional.

During the past two or three weeks, too, the cattle market has been steadily improving. Hence the optimism of the country.

City business is undeniably dull. A few industries continue to profit from war or war orders, but on the whole the volume of trade declines. Bank clearances, for instance, are many thousands of dollars lower than for the corresponding weeks last year. It remains to be seen what will affect the market, the new crop will have on city industry.

**WHEAT**  
The market continues to improve but price advances have not been radical. Many speculators lost heavily in the record declines of the last few months and they are dealing carefully. Trade journals are on the other side of the line and not optimistic as to future conditions. A big crop will be harvested this year in both hemispheres and these journals continually point out the danger to the wheat market should Russian supplies be suddenly released. No. 1 Northern wheat quoted \$1.35; No. 3, \$1.35; Ontario wheat \$1.12 to \$1.15.

**COARSE GRAINS**  
Oats and corn have both advanced strongly in the week, the cause, buying for export. The following quotations: Oats, C.W. No. 2, 65¢; No. 3, 60¢; Extra No. 1 feed, 55¢; Ontario, 50¢ to 57¢; corn, American, 55¢; Canadian, 70¢; peas, \$1.50 to \$1.60; barley, malting, 70¢ to 75¢; feed, 60¢; buckwheat, 85¢; rye, \$1.05 to \$1.10. On the Montreal market quotations rule as follows: Oats, C.W. No. 2, 65¢; extra No. 1 feed, 55¢; local white, 55¢ to 60¢; corn, American, 55¢ to 60¢; barley, 70¢; rye, 80¢ to 90¢.

**MILL FEEDS**  
Both bran and shorts are scarce, and it is believed that buyers are collecting supplies for Eur. can account. Quotations: Bran, 25¢; shorts, 22¢; middlings, 22¢; feed, foot, 18¢; extra No. 1 feed, 18¢; No. 2, 18¢; No. 3, 18¢; No. 4, 18¢; No. 5, 18¢; No. 6, 18¢; No. 7, 18¢; No. 8, 18¢; No. 9, 18¢; No. 10, 18¢; No. 11, 18¢; No. 12, 18¢; No. 13, 18¢; No. 14, 18¢; No. 15, 18¢; No. 16, 18¢; No. 17, 18¢; No. 18, 18¢; No. 19, 18¢; No. 20, 18¢; No. 21, 18¢; No. 22, 18¢; No. 23, 18¢; No. 24, 18¢; No. 25, 18¢; No. 26, 18¢; No. 27, 18¢; No. 28, 18¢; No. 29, 18¢; No. 30, 18¢; No. 31, 18¢; No. 32, 18¢; No. 33, 18¢; No. 34, 18¢; No. 35, 18¢; No. 36, 18¢; No. 37, 18¢; No. 38, 18¢; No. 39, 18¢; No. 40, 18¢; No. 41, 18¢; No. 42, 18¢; No. 43, 18¢; No. 44, 18¢; No. 45, 18¢; No. 46, 18¢; No. 47, 18¢; No. 48, 18¢; No. 49, 18¢; No. 50, 18¢; No. 51, 18¢; No. 52, 18¢; No. 53, 18¢; No. 54, 18¢; No. 55, 18¢; No. 56, 18¢; No. 57, 18¢; No. 58, 18¢; No. 59, 18¢; No. 60, 18¢; No. 61, 18¢; No. 62, 18¢; No. 63, 18¢; No. 64, 18¢; No. 65, 18¢; No. 66, 18¢; No. 67, 18¢; No. 68, 18¢; No. 69, 18¢; No. 70, 18¢; No. 71, 18¢; No. 72, 18¢; 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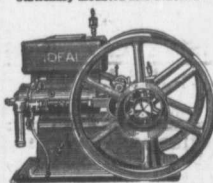
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ACTUAL PHOTO OF SET

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THIS dainty tea set of 40 pieces is in semi-porcelain, nicely decorated with roses. It consists of 12 cups and saucers, 12 tea plates, 2 cake plates, 1 cream jug and a slop bowl. It is a set that any woman would be glad to have on her table when her friends drop in for tea.

Read what some of them have to say about it.

Marion McC., Glengarry Co., writes—"I received the tea set some days ago. It was all in good condition and I am more than delighted with it."

Marjorie T. Lennox Co.—"I wish to thank you for the tea set which arrived safely. I feel well repaid for my trouble, as it is quite up to my expectation."

Hilda D. Gladstone, Man.—"I received the tea set and I think it is very beautiful. I had no trouble in securing the subscribers."

Nancy E., Perth Co., Ont.—"I received the tea set which you gave me for securing 4 new subscribers, and would say to any of the ladies that it is well worth trying for."

We would strongly advise those desiring the set to act promptly. The war has interfered with the trade and there has been a sharp advance in porcelain ware. We have, however, secured a number of sets from a large firm, and while they last are offering them on the usual terms.

This beautiful tea set has proved to be very popular with our women folk; hundreds of them realize how little effort it takes having secured one. It is equally attractive on the tea table and in the china cabinet.

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