



## In Times Like These

when help is so scarce and duties are so many, the wise dairy farmer conserves his time and strength, recognizing that a saving of these puts dollars in his pocket. Probably never in the history of the dairy industry were prices so good for dairy products; and never was help so scarce for the reaping of his rich harvest. One of the surest labor savers and money makers on the modern dairy farm is the

Note the heavy compact construction and convenient height of supply can and discharge spouts. The top of the supply van is only 3/4 feet from the floor.

## Simplex Cream Separator

It cuts the labor of skimming milk more than in two not only because it turns easier than most other hand separators, regardless of capacity, but because it does the work in half the time; and in these busy days, with labor scarce and expensive, a saving in time is a direct monetary saving to the dairy farmer.

The Simplex skims so clean and runs so light that the large 1,100-lb. size, when at speed and skimming milk, takes no more power than the ordinary 500-lb. Hand Separator of other makes. The Simplex, combined with the

## B. L. K. Milker

on your farm gives a combination of labor-savers and money-makers unequalled. Space prevents us telling you all we would like to about the B. L. K. Milker, how it renders you independent of careless and irresponsible hand milkers, how one man and a boy are milking 50 cows in an hour and a half, and a hundred and one other points we cannot begin to mention. We have prepared some of the most interesting literature though on the Simplex Separator and B. L. K. Milker, which is yours for the asking. Write us for it. It will help you to

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# EXHIBITION NUMBER

## Out

# AUGUST 31

An ad. in this Number gives your exhibit double pulling power. Our readers watch this Special Number as a guide to the exhibits at Toronto. Do not miss being represented. Send your reservations along now. Write

ADV. DEPT.

Farm and Dairy, Peterboro, Ont.

## The Edmonton Exhibition

(By an Editor of Farm and Dairy.)

—O an exhibitor who visits it for the first time the Edmonton, Alberta, Exhibition furnishes a surprise. It is larger, much larger, than one expects to see, the exhibits are more numerous, and the quality of the display comes favorably with the best in the east. The grounds are larger than those of the Central Canada Exhibition at Ottawa or of the Western Exhibition at London, and not far short in size of those of the Canadian National Exhibition, Toronto. The cattle, horse, sheep and swine sheds are numerous and comfortable, the manufacturers' and agricultural buildings creditable, the grand stand of comfortable size, and there is a covered judging pavilion or judging arena, constructed of brick, that is large, well heated and well lighted, and which puts to shame the leading exhibitions of the east, all of which still lack such a building. The manager is Mr. W. J. Stark, formerly business manager of Canada Farm, Toronto, and secretary of the Toronto Horse Show. The full prize list totalled \$37,000.

While the exhibits of heavy, harness and light harness were not large, there was good competition in almost all classes, the animals were shown in good form, and the interest evinced was keen. The judging of the carriage and driving horses and jumpers in front of the grand stand was a feature which the public much enjoyed.

Being held so early in the season, July 1-14, there were practically no exhibits of field crops or grain. The poultry exhibit was not as large as similar exhibits in the east, but was a good one, nevertheless, as was also a dog show, for which a special entrance fee was charged.

The cattle sheds housed a representative exhibit of all the leading breeds, including Shorthorns, A. F. & G. Aired, of Guelp, and Kyle Bros. of Drumbo, Ont., both showing and winning a considerable share of the awards; Aberdeen-Angus, J. Bowman, of Guelp, showing and doing well; and Herefords, L. G. Clifford, of Ottawa, being the principal winner.

### Dairy Breeds.

The dairy breeds were well represented, the stock shown being of uniformly high quality and brought out in good form. It would have been shown to advantage in any of the eastern show rings. Holsteins were the most numerous, with Jerseys and Ayrshires both showing up well. The Judge in all the dairy classes was W. H. Stagg, of Lyons, Mo., who has judged Holsteins at Toronto on a couple of occasions. There were no eastern exhibitors in these classes.

### Holsteins.

Four Holstein herds were out: those of J. H. Laycock, Okotoks, which captured the principal awards; the Duke of Sutherland, Hay Creek, Alberta; G. Bevington, Winterburn, and Hamblly & Sons, Munson, Alberta. The championship for aged bull went to Laycock's Koradyke Poesh Pontiac, bred by R. J. Kelly, Tillsonburg. This bull won the championship also at Calgary and Red Deer. He is a fine type of a bull, showing great smoothness throughout, good length, straight top line, plenty of body and true dairy conformation. The Duke of Sutherland's Principal De Kdt stood second in type this bull was much like the winner. The reserve senior championship went to Bonnie Brse Koradyke, also owned by Laycock. The junior championship went to Count Tessen, owned by Bevington, which captured the reserve grand championship.

The female grand championship

went to Princess Holdenby De Kdt, shown by Laycock. She was the winner also at Calgary and Red Deer. This is a grand, well-proportioned cow, possessing depth and substance, a nicely balanced udder, with good milk veins and a level top line. Laycock also won the graded and junior herd prizes, Bevington being second in both classes, and the Duke of Sutherland third. One of the grand cow shows, although now past its prime, was Victoria Johana Bury, owned by Irvine Hamblly & Sons, Munson, Alberta, and winner in both 1913 and 1914 of the two-day dairy test at the Calgary and Red Deer exhibitions. This is a large cow with exceptional veining and capacious udder.

### Ayrshires.

In the Ayrshire classes there was a large exhibit, although only two exhibitors turned out. All the principal awards went to Rowland Ness, De Winton, Alberta, who showed 25 high-class Ayrshires in grand show yard form. The other exhibitor was Edward Runnals, of North Edmonton, whose smaller exhibit comprised some very good animals. The champion bull Morton Maim Planet, sired by Auchinbrair Pluto, shown by Ness, was a fine animal. He showed true Ayrshire type, plenty of depth behind the shoulder, smoothness throughout, a well-sprung rib, and abundant fatness. The champion cow, This bull would do well in any show ring. He carried off the principal honors also at Calgary and Red Deer.

The champion cow was Leasesneck Prany In also shown by Ness. She was suffering from a touch of milk fever when we saw her, and therefore was not in her best form. She had an almost perfect Ayrshire head, true dairy conformation, a well-sprung rib, unusual depth and fullness behind the shoulder, and a well-balanced udder with four large well-placed teats. She well deserved her placing as champion cow. She also won the grand championship in her class at Calgary and Red Deer.

### Jerseys.

The majority of the awards in the Jersey classes went to animals shown by J. Harper & Sons, Westlock, Alberta, who showed 16 head. Good animals were brought out also by W. J. Williamson, Fort Saskatchewan, Alberta, who exhibited nine head, and by Rice Sheppard, of Edmonton South, who contributed seven head.

The champion bull was Pets Kie-tucky Wonder, shown by Harper and Sons. He was first and grand champion also at Calgary and Red Deer. At the latter exhibition he was placed grand champion over all dairy breeds by a Holstein breeder, who was the judge. This bull showed his rich breeding, being from some of the best stock on the island of Jersey. He has depth, vigor, substance, masculinity and dairy conformation, all nicely blended, making him a hard bull to beat.

Harper and Sons also captured the female grand championship at Calgary. Red Deer and Edmonton with Nobel's Bess, a sweet cow, carrying a perfect udder, handling nicely, showing an open, well-sprung rib and good depth. The graded and junior herd prizes both went to Harper and Sons.

The stock of W. J. Williamson and Son showed strength of constitution, combined with dairy type. Several important awards went to this herd. Also shown were the awards for three calves under one year, owned by the exhibitor, and second for three females, the lot of one bull, as well as several other awards.

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H. B. C.

# FARM AND DAIRY



We Welcome Practical Progressive Ideas

## & RURAL HOME

The Recognized Exponent of Dairying in Canada

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

VOL. XXXV

PETERBORO, ONT., AUGUST 3, 1916

No. 30

## Cooperative Methods Not a Cure-all\*

### They are the First and Absolutely Essential Step, But Only One Step, Toward Better Conditions

H. BRONSON COWAN, Editor-in-Chief,  
Farm and Dairy.

ONE of the reasons why the farmers of Canada are making such progress in cooperative work is that they have the experience of previous attempts at organization to warn them from the rocks upon which shipwreck and disaster have been met in the past. It is well that full advantage should be taken of such experience. But it is not necessary to confine ourselves to the history of cooperation in our own country for lessons in what to adopt and what to avoid in shaping our cooperative policies. We can draw valuable lessons from the experience of farmers' organizations in other countries. The forces that have contributed to their success or failure are operative with us. Recent developments in cooperative work in the western states are particularly illuminating. Among other things they show, in a remarkably clear and forceful way, the limitations that are set to the benefits to be derived from cooperation even when carried on with a perfection of method that has been the despair of farmers engaged in similar work in other parts of the United States and in Canada.

Fruit growers in the east have long looked upon the great fruit growers' organizations of the Pacific Coast States as being almost models of all that fruit growers' organizations should be. The thorough manner in which they have safeguarded every step from the pruning and spraying of their trees and the thinning of the fruit to the packing of the product in neat, attractive packages, just so many apples, uniform in size and color, to the box, has been pointed out as the explanation of their ability to outsell—not undersell—eastern fruit in the eastern markets. It has come as somewhat of a shock, therefore, to many eastern growers to find that in spite of their apparent perfection of method, all things are not well with the fruit growers of the western coast states. In fact, it has seemed at times as if their situation could hardly be worse. The very prosperity brought about by their early successes has led, in a large measure, to their undoing. This success brought a false optimism, which resulted in over plantings, excessive land values, increased cost of production, and ruinous competition between different cooperative organizations. This condition, in turn, culminated in glutted markets, and such low prices for fruit that thousands of fruit growers have been ruined and large areas of fruit trees cut down and the land devoted to other crops.

So serious did the situation become that early last fall growers, selling organizations, bankers

and commercial clubs in the northwest sent hundreds of telegrams and letters to the Department of Agriculture at Washington, urging them to have the Office of Markets come to the assistance of the fruit industry. According to the Fruit and Produce Market, of Portland, Oregon, the department was advised that the fruit industry was in a deplorable condition, that this condition was realized by all, and that the help of the federal government was needed in order that a plan might be found that would place the industry upon a better basis. In response to these requests the department sent to the northwest three experts to investigate conditions. These men spent many days and a large sum of money in investigating every fruit section in the northwest, and talking upon the selling organizations, bankers, growers and leaders in the different

communities. They thus secured a thorough understanding of the needs of the industry. With this information in their possession they called a meeting of those interested and reported to them somewhat as follows:

"We find the fruit industry of the northwest to be the greatest example of disorganization to be found in the United States. The very fact that you have a number of strong organizations makes it all the worse, because it gives you larger clubs to use in your game of tearing each other to pieces. Your principal trouble is 'selfishness.' If you have a sincere desire and are willing to do certain things, we will suggest a plan upon which you can meet on equal terms and agree."

They were answered in this fashion:

"We realize our deplorable conditions and know that if we do not agree to certain practices that we will have no industry in a few short years. We therefore are here with open hearts ready to agree to any constructive plan that will assist the industry."

Growing out of this report a Fruit Growers' Agency was formed for the purpose of reorganizing the industry, harmonizing the competing interests, bringing order out of chaos, and re-establishing better conditions. It is yet too early to decide what success will attend this new effort. In the meantime we, in the east, may learn some valuable lessons from the conditions that have thus been revealed in the west.

#### Lessons For the East.

In the first place, let us note that the primal cause of the trouble in the west was SELFISHNESS. What a flood of light that one word throws on the whole situation, both east and west! The evil worm it represents finds its way to the centre of every effort of man to improve his condition, and again and again thwarts his best efforts. It explains why men refuse to cooperate as long as they think they can do better for themselves in some other way; it leads men to throw down their association when a buyer offers them an extra inducement to sell outside their organization; it is the cause which prompts growers to rush immature fruit to the market in the hope of obtaining some of the early high prices; it explains why buyers so often find inferior fruit under number one grades, and makes clear the motives which prompt even cooperative associations to cut the ground from under each others' feet in their anxiety to market their products.

What are we going to do about it?

In some ways there is not much that can be done. A greater than human agency is required to deal with this evil in the hearts of men. Let us, therefore, recognize this fact, and not make

(Continued on page 9.)



#### A Citizen Worth While

THERE is a life that is worth living now, as it was worth living in the former days, and that is the honest life, the useful life, the unselfish life, cleansed by devotion to an ideal. There is a battle that is worth fighting now, as it was worth fighting then, and that is the battle for justice and equality; to make our city and our State free in fact as well as in name; to break the rings that strangle real liberty and to keep them broken; to cleanse, so far as in our power lies, the fountains of our national life from political, commercial and social corruption; to teach our sons and daughters, by precept and example, the honor of serving such a country as America—that is work worthy of the finest manhood and womanhood. The well-born are those who are born to do that work; the well-bred are those who are bred to be proud of that work; the well-educated are those who see deepest into the meaning and the necessity of that work. Nor shall their labor be for naught, nor the reward of their sacrifice fail them; for high in the firmament of human destiny are set the stars of faith in mankind, and unselfish courage and loyalty to the ideal.—Henry Van Dyke.

\*This article was written primarily in the interests of the fruit industry of Ontario. It appeared in the August issue of The Canadian Horticulturist. As the principles it deals with apply with equal force to the cooperative movement that is making headway among the farmers of Ontario, it is here republished with but slight alterations, in Farm and Dairy.—E. B. C.

## Wasted Fertility

The Loss Not Always Realized

By Scheel Teacher, York Co., Ont.

AMONG the books which we have in our village library is one entitled "The Fertility of the Land," by Roberts. While glancing through it the other day, I ran across an illustration that was adapted from a sketch drawn by a Japanese student of agriculture on an examination paper at Cornell University. The purpose of the drawing was to show how farm manure wastes when exposed to the elements. In the background was a barn with a huge manure pile beside it, and in the foreground a pond. Instead of a stream of water running down the hill and carrying the soluble constituents of the manure pile with it, a great number of small figures, like the Brownies, with which children are so familiar, were shown, carrying baskets and sacks of nitrogen, potash and phosphoric acid. These they were leading on a raft in a pond, ready to be taken away.

The sketch was a striking illustration of just what I had noticed the previous week while visiting the home of one of the scholars of my school. A large exposed manure pile stood in front of the barn. Down a ditch, which ran beside the lane, a small stream of brownish water flowed into a small creek a hundred yards away. That stream was carrying away the best part of the fertilizing material, the soluble part, from the manure pile. What was not soaking into the ground in the ditch, where it could never be utilized by the crops, was being carried to the creek where it was lost forever. Every particle of that waste represented lost fertility which was badly needed on the fields, and was, therefore, just so much lost money. I imagine that if this farmer saw ten dollar gold pieces rolling down the ditch and out of sight he would neither eat nor sleep until the losses were remedied, or even if he had seen small figures carrying away sacks of fertilizer labelled "nitrogen," "potash," or "phosphoric acid," fertilizers for which he sees his neighbors paying high prices, he would have no less concern. Had the manure of the pile been distributed on the land last winter, or early in the summer, all this fertility would have been absorbed into the soil long ago and would now be helping to bring this year's crop along.

## Two Simple Concrete Devices

A Culvert and a Feeding Trough

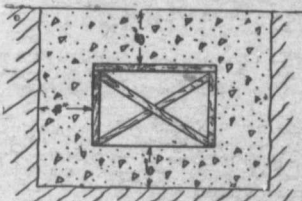
CULVERTS on the farm might be likened to the old "Party-niner's" comment on the practice of carrying a pistol. As he put it, a gun was something one might not need for a long time, "but when you do need it you need it mighty bad." Every farmer will recognize the application. Perched upon a loaded wagon he has driven out of a field into his lane or the public road and drenched crossing the intervening ditch that marked the boundary. The downpitch and jolt of the wagon, then the strenuous pull and wrench required to get it up the other side of the ditch spelled wear and tear in large letters, with too often things actually broken or part of the load dumped off. Again, there is the place in the lane that every torrential rain washes into a gully, or the muddy ditch in close proximity to the house or barn.

The farmer is foolish to submit to all this annoyance, inconvenience and exasperation when it is so easy to establish culverts that will remedy the situation effectually and permanently. With little effort and at small expense he can put down imperishable concrete culverts.

Concrete culverts are built several ways. The purpose here is not to consider the more com-

plex and expensive types, but culverts of the most economical construction, such as will not only take care of water, but serve as little bridges over ditches or depressions in a road or driveway.

For example, having determined the required size of the culvert and having made the proper excavation, place in the latter 6 inches of concrete consisting of one part Portland cement, two parts sand and four parts stone, the stone graded from one-quarter inch to one inch in size. If crushed stone is not available use one part Portland cement and five parts of gravel, if the gravel is clean and well graded. After placing a six-inch bed of concrete in the bottom of the excavation erect board forms as shown in the accompanying drawing, bracing them at each end as indicated. The width and depth of the excav-



A simple method of constructing a small concrete culvert.

tion should be such as to allow an eight-inch concrete covering at the top and sides of the form. After the concrete has hardened the inside braces are knocked away and the side forms allowed to collapse, which will also release the upper or top board. This will give a flat concrete arch of great strength and the method of constructing it is so simple and economical as could well be devised. Where a very small drain is required and the farmer happens to have some terra cotta pipe on hand, he could resort to the same method of building a culvert with a round instead of square or rectangular opening, allowing the pipe to remain.

By remembering that a barrel of cement will make about 25 cubic feet of concrete of the proportions given above, it will be easy to calculate

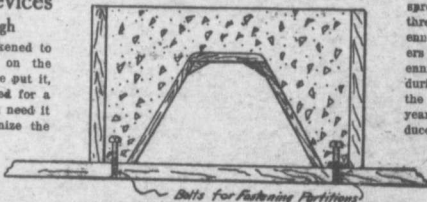


Diagram of Concrete Feeding Trough Showing Construction of Mounds.

approximately the amount of cement required for a culvert of given dimensions.

### A Cement Trough.

The common watering or feeding trough has undergone considerable evolution since the country was first settled. Our grandfathers had at their disposal plenty of timber, but very little cash. When they wanted a trough for any purpose they simply hollowed out a log on one side, using only an axe, or if they were lucky in having a neighbor who was a timber framer, and therefore the possessor of an axe, they might borrow that handy implement. These old-fashioned troughs are still to be seen in some parts, but are usually far gone in decay. Later, troughs

were made of two-inch planking, held together by spikes and clamps. Many of these are still used, but there is a tendency to swing over to the use of cement or even of iron. One of the chief advantages of these materials is that they are more sanitary than wood.

When a trough is more or less stationary cement concrete is a cheap and efficient material from which to make it. The diagram shows how to construct a form in which to make a neat trough of this kind. But little further explanation is necessary. It will be noticed that the trough is upside down when setting in the moulds to harden. The end of the inside mould is set out at the same angle as the slope of the sides and a piece of lumber is nailed on. The bolts of which the heads are imbedded in the concrete are spaced to take the partitions, which may be as far apart as is deemed necessary. A coating of cement, mixed with fine sand, should be troweled on the inside of the trough to make it waterproof.

In making devices of cement concrete the farmer should be careful to have clean sand and well graded aggregates and be patient enough to allow the concrete to harden thoroughly, say for a period of two weeks. More failures are caused by the use of dirty sand, unsuitable aggregates, and undue haste in the removal of forms and premature use of construction than are caused by defective cement.

## Fighting the Weeds

Their Habits Must Be Known

TWENTY-FIVE weeds occurring most frequently on the 400 farms visited by the Conservation Commission in 1915 were Canada thistle, couch grass, wild mustard, ragweed and sow thistle. One hundred farms were visited in each of four counties, Dundas, Carleton, Waterloo and Northumberland. In many instances, the weeds are very bad and increasing at an alarming rate. In Dundas, 98 per cent. of the farmers visited report wild mustard; 88 per cent. report sow thistle, with 26 per cent. reporting it increasing. In Carleton, 98 per cent. report couch grass, 77 per cent. report sow thistle, with 22 per cent. reporting it increasing.

To succeed in eradicating weeds one must have a knowledge of two important points: how long the plant lives, and how it reproduces and spreads. Regarding duration of life there are three classes of plants:—Annuals, biennials, perennials. Annuals come up from seed, bear flowers and seeds and die, all within one year. Biennials grow from seed and produce only leaves during the first year. The roots and sometimes the leaves live through the winter. The second year a flower stalk comes up and seeds are produced, and the plant dies. Perennials are those whose roots ordinarily live on year after year. The plant may or may not produce seed every year; according to conditions.

Practically all annuals reproduce by seeds only. Biennials, also, except during the winter when the roots are in the ground, reproduce by seed. Perennials propagate by means of the roots or by roots and seed.

### Means of Control.

Annuals and biennials are controlled by cutting or pulling, thorough tillage of cultivated crops, rotation of crops, or spraying with chemicals. Perennials are controlled by summer fallowing, partial summer fallowing and smother cropping, thorough cultivation; with crop, smothering with such materials as tar-paper, or by the application of salt brine or gasolene. Farmers, townships and municipal authorities alike should enlist today and join whole-heartedly in the fight against our common enemy the foul weed.—F. C. N., in Conservation.

## Features of Oak Park Farm

Where Up-to-Dateness Prevails

By W. G. ORVIS.

**O**AK PARK FARM is up-to-date. The Holstein breeders of Brant county, Ont., who met there for their picnic in June, can vouch for that. The proprietors, W. J. Bailey & Son, are men of business training, and believe in keeping their buildings and equipment up-to-the-minute in every particular. There are many things on the farm that could be discussed with profit, but for the present I will confine myself to the use that is being made of a motor car for delivery purposes, and to the modern design of the large hog pen.

### The Farm Motor Car.

The motor car, of which an illustration is shown, has proved to be a very important addition to the farm equipment. The body is of special construction, having a carrying compartment at the rear of the seat. Four feet wide, five feet long and five feet high. The guaranteed carrying capacity is 1,000 pounds.

This car is used every day for taking milk into the city of Brantford. It will easily carry nine cans of milk, and on ordinary good roads will average 20 miles an hour. The round trip is ten miles, but it never takes over 45 minutes to make it. Mr. Bailey believes that any one who has a fairly long milk or cream haul will find the automobile to be quicker and cheaper than a horse and rig. The car has been used to take grain into the city for grinding, and also for delivering crated hogs, sheep and calves to the station. Light implements are sometimes drawn to the field, and no doubt many other uses will be found for it. The upkeep is low, being only about \$3.00 a week.

### The Modern Hog Pen.

The hog pen at Oak Park Stock Farm was built about a year ago. It was largely designed by Mr. H. H. Bailey, the younger member of the firm, and has many points worthy of special notice. The building is 131 feet long, 22 feet wide and 26 feet high at the ridges. It has a large loft for storing of straw or other material. In one end of the lower part are a number of farrowing pens, each 7 x 15½ feet. This part is divided from the other by a tight partition. It can thus be kept quiet, so that the sows are not disturbed as they otherwise would. These pens are fitted with safety boards and a good dry bed of planks, raised a few inches above the cement floor. The remaining part of the building is divided by plank partitions into pens 9 x 15½ feet. A sleeping place is provided of plank flooring raised slightly above the other floor. This bed is always kept

nice and dry and clean.

Each pen has an outside entrance and also a door in the front partition leading into the passage way. This passage runs the full length of the building. As is seen by the illustration, there are plenty of windows, which give an abundance of light at all times. These windows are arranged so as to help ventilate the building. There are also a number of registers in the walls, which can be used for intakes of fresh air. Three large chutes, which act as outlets for the foul air, lead through the loft to the cupolas on the roof. The system of ventilation is, therefore, a very perfect one.

On the west side of the building is built a small feed and cook house. Here is a large sized cooker and a mixing trough. All grain is cooked and



The Well Planned Driving Shed on the Farm of W. C. Dempsey, Prince Edward Co., Ont.

—Photo by an Editor of Farm and Dairy.

many commendable things about it. It is 40 feet long and 26 feet wide, with 12 foot posts, and is built upon a cement foundation. The frame is of the ordinary timber model. It is sided with matched spruce lumber, dressed on both sides, and costing \$27 a thousand feet.

The downstairs part is used for storing implements and machinery and as a workshop where repairing can be done. The large window is 13 x 4 feet, and provides ample light for doing work of this kind. Mr. Dempsey also intends using this portion of the shed as a receiving and packing station for asparagus, a crop he grows quite extensively. The upper part, which is the full size of the building and four and one-half feet high at the eaves, makes an ideal storage loft for the numerous small things around the farm. It is well lighted, and should prove valuable as a place for such work as painting farm implements in seasons when they are not in use. A double door has been made in one end, so as these implements can be easily taken up into the loft.

Another noteworthy feature of this driving shed is the big sliding door in the end. This will admit all implements with ease and is easily operated. In the opposite end is a similar door, making it possible to drive right through the building. This saves much time and trouble in hitching and unhitching. A study of the good points of this building should be suggestive and valuable to anyone who intends putting up a similar one this season.—W. G. O.

It should always be kept in view that because a cow is on the premises for 12 months, involving a certain expenditure during that whole time, therefore, the income derived from her must also be viewed from the point of total production during that whole period of 12 months. C. F. Whitley, Ottawa, Ont.

Records were kept of 14 cows that were dehorned at the North Dakota Experiment Station. They fell off 25 pounds a day the first two days, or about a quart each. On the third day they were back to normal.

To my mind, the power of advertising and the benefits that it may confer on the fruit grower are great indeed. It is the only means the producer has whereby he may increase the consumption of fruits.—Prof. J. W. Crow, O.A.C., Guelph.

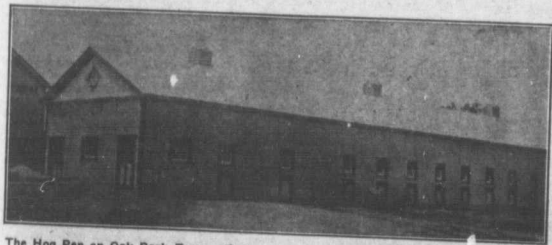


The time of the Baileys is valuable. They save a considerable amount of it by using the motor car for delivering milk and doing odd jobs around the farm.

mixed for several hours before it is fed. The floors and troughs are all made of concrete, and are therefore easy to clean and very durable.

## A Well Planned Driving Shed Combining Many Commendable Features

**A**n implement shed, similar to the one illustrated, is a good investment on any farm. This particular shed is on the farm of Mr. W. C. Dempsey, Prince Edward Co., Ont., and has



The Hog Pen on Oak Park Farm. Notice the Provision for Admitting Light and Fresh Air.

—Photo by an Editor of Farm and Dairy.

# WRIGLEY'S

## Largest Selling Gum in the World

Hot work on a hot day makes a man appreciate the delicious, cooling, lasting taste of mint!

WRIGLEY'S comes in two mint flavors: Spearmint and Peppermint.

Always fresh, full-flavored and clean in its moisture-proof package.

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## THE ROAD TO OPPORTUNITY

### Wayside Cleanings

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

**Care of Milk on Hot Nights.**  
ONE of our folks, Mr. Sam Armstrong, of Peterboro county, dropped into the office the other day and told us of one plan he has adopted for caring for his milk on hot nights. Mr. Armstrong has no milk cooler as yet, but is following a plan which he heard recommended by the late Senator Deschamps years ago. His milk stand is made of wire fence. Pieces of scantling were nailed to the two posts of the fence, one on each side of the stand. These reach up to about five feet above the level of the stand. Across these an other scantling was fastened and into this several nails were driven for holding pails. The night's milk is strained into pails, preferably those with lids, and the pails are hung up on the nails. The large surface exposed causes the temperature of the milk to soon fall to that of the surrounding atmosphere. On some of the nights we have lately experienced this may not be very low, but our friend informed us that his milk had always arrived at the factory in good condition, even when some of the other patrons of the factory were having trouble in keeping their milk sweet. The maker had also told him that his milk was among the best lots arriving at the factory. Mr. Armstrong is a firm believer in the rapid cooling of milk as soon as it is drawn. He realizes that the plan he has been following is far from perfect, but simply recommends it to those who, like himself, have not yet put in a milk cooler.

### Building a Load.

Last week I visited a farm in York County where the men were at work in the hay field, and, of course, went back to see them and to chat with them as they worked. They were busy drawing in, and the man on the load was near the three score and ten mark. I could not help noticing the systematic way he had of building his load. He began each corner at the right hand front corner and built a course around the rack. He then filled in the centre, beginning at the front and finishing at the back. This was exactly the plan I was taught to follow when I was a boy.

The main idea in building a load in this systematic manner is to make it easy to pitch off. Where an hayfork or slings are used it is important to matter whether the load pitches off easily or not, but where these are not used it is a great advantage to have the hay come off with the minimum of effort. When the load is properly built there is no tugging and pulling to get the hay off if care is taken to work around the opposite way to that in which the hay was placed on the load. If no system is followed and a haphazard is picked up here and there at random, very hard work is made of the pitching. This is only one of the jobs that some men on the farm seem to do in the hardest possible way. There are all kinds of ways in which a man can use his brains to save his back.

### Taking It Out on the Horses.

Some days ago I witnessed a scene that would make any horse lover's blood boil. I knew it did mine. It was a hot day, rain was threatening, and there were several loads of hay to be brought in. Every one was hot and irritable, but that did not excuse bad matters any. The man who was loading got more of his load on one side of the wagon than on the other. The

load began to shift, and just as they reached the driveway into the barn the wagon upset. The driver lost his temper and endeavored to relieve his feelings by throwing the blame for the whole catastrophe on the horses. He proceeded to jerk and abuse them in a shameful manner, to decide where the punishment should have been administered. One thing is certain, the horses were not deserving of any of it. Any blame there was rested with the driver.

Such usage of our faithful servants, the horse, should not be tolerated. In fact, any city where there is a humane society to protect the animals such conduct is summarily dealt with. Out on the farm, our animals, for the most part, depend on us for mercy. If it is only flagrant cases of cruelty that are brought to the notice of the authorities. There are many cases of abuse that go unreported. The one I have mentioned is a case of one of our farmers having sufficient love for his horses to give them a square deal and not to abuse them when they are not to blame. But it is regrettable that there are some who do not seem to recognize the rights of their silent and faithful servants and friends.

### Summer Silage.

Breeders say that their animals are suffering as much from the heat as the people, and in many cases they are also suffering for another cause that of suitable food. Mr. D. B. Tracey of Northumberland county, stated that he makes very much silage which he usually has for summer feeding. Other years they were able to keep their cows up to the normal flow of milk throughout the entire summer season by using a fair amount of silage. Green feed can be provided in a great many cases, but it does not seem to have the desired effect in keeping up the milk flow as well as silage does. Mr. Tracey plans after this to have one side full of silage for summer feeding, and believes that it pays to do so. Many farmers could follow his example with good results.

### The Crop Outlook.

Many questions are asked us as to journey from place to place as to what is the crop outlook in different localities. Everyone seems to be well satisfied with the hay crop, and many bumper yields have been reported. Mr. D. B. Tracey, 66 Northumberland county, harvested 23 loads of hay from six acres, and Mr. Dunan, of York county, reports a yield of over three tons per acre. Fall crops in general, in a good crop. It is filling well and has a good length of straw. Early spring sown grains are very good. Many exceptionally good crops may be seen in different parts of the province. Late sown grains have suffered severely from the heat and dry weather, and the straw from these fields will likely be short and the yield small. Peas that were in blossom before the continued hot spell passed to be a good crop, but the later ones will be materially damaged. Some fields of grain are quite patchy, due no doubt to too much moisture earlier in the season. Roots are doing very well in many localities, the earlier sown ones being more promising than the later ones.

If tomato plants are pruned and trained, fruits can be forced to ripen from ten days to two weeks earlier than if the vines are allowed to remain unpruned and lie on the ground. If training to one stem, all side shoots should be pinched back. Each plant may be tied to a firm stake four or five feet high.

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### Dairy Progress in Manitoba

SOME of the districts in central and northern Manitoba are making especially gratifying progress in dairying. Particularly in this respect is the area settled by the Ruthenian people, but the development is not confined to the non-English communities. As one illustration of this progress the Lushin creamery during the month of June made more butter than during the two years of 1910 and 1911.

The general practice among Manitoba creameries is to pay very promptly, and this feature in itself is popularizing dairying. From the Anguville cream station the cash accompanies the cream cans on their return trip to the farmer, while from many of the creameries the cheques go out within 24 hours of the receipt of each can of cream. In 1913 one creamery close to the Riding Mountain district made 100,000 pounds of butter. This year will show an output of four times that amount. The building up of the dairy industry has put hope and life into the Ruthenian settlers. Where three years ago many of them had only two, three or four cows, they now own and milk ten or twelve; where they were then making a very inferior class of butter at home, they are now sending regular shipments of cream to good creameries; where they were then deprived, they now see financial success ahead.

The amount of cream supplied by these areas is very greatly improved in quality, and a constantly larger percentage of it grades number one. One of the lines of work that the Department is undertaking through its agents is to ascertain at each creamery just what the cream from each patron is like, and then by personal visits to the farms of those who are making mistakes offer suggestions as to needed improvements.

### Dufferin County Farmers' Tour

THE second annual tour of farmers, under the direction and organization of H. A. Dorrance, District Representative for Dufferin Co., Ont., was held July 15th, 16th and 17th, the line of travel being through Wellington, Halton and Brant Counties. Visits were paid to noted farms in these districts. The party, to the number of forty-one farmers from various sections of Dufferin County, was transported over the route in automobiles all owned and driven by farmers. During the trip some three hundred miles were covered and visitors were made to a number of the leading flocks and herds of the province.

The first stop was made at The Maples, the home of the Hunter Herd. Here was gathered for inspection a representative selection from this well known herd. After a brief study of Hereford type, a short run brought the party to the farm of Geo. D. Fletcher at Erin. Here some attractive Shorthorns were shown the visitors. Proceeding to Guelph for lunch, the next visit was made to the Provincial Prison Farm and some time was spent with Warden Gilmour in examining some of the many points of interest at that important and interesting institution. Leaving there Woodlands Farm, the property of Messrs. Ballag's & Son was the next point of interest. This firm specializes in Brown Swiss Cattle, Shetland ponies, Hackney, Clydesdale and Thoroughbred horses. The herd of Brown Swiss provided the main attraction at this point, being an entirely new breed to the party. The proprietor took some pains in discussing the various details regarding this promising dairy breed.

The following morning the tour was taken up again at Burlington and visits were paid during the day to the Shorthorn herd of Mitchell Bros.,

the Shorthorns and Clydesdals of Pettit Bros., the Holsteins of Lakeview Farm and to the Fisher Orchards. At each of the stops the visitors were shown the important features of each farm and brief talks and discussions took place regarding types of animals and methods of feeding, handling and stabling.

A Talk on Alfalfa. The third day of the tour was resumed at the farm of James Douglas, Caledonia, where considerable time was spent in listening to a very detailed talk from the owner in connection with his methods of growing and handling alfalfa. Here, too, were shown many of the select Shorthorns from the long established herd maintained at this farm.

The next visit was paid to the Riverside Farm of J. A. Richardson, who, on a well laid and attractive farmstead, maintains a herd of Holsteins. Here, as at the other stops, a brief talk was given by the owner in connection with some of his methods and the usual discussions took place.

Leaving this point and proceeding via Brantford the last entire day of the tour was paid to the Oak Park Stock Farm near Paris. At this farm the party had the opportunity of looking over the Holsteins and the excellent flock of Shropshire sheep, which are specialties of the proprietors, Messrs. Bailey and Son. From this point the party proceeded homeward by way of Galt, Hespeier and Guelph.

This is an excellent method of combining an educational feature and a holiday, and is a very popular event among the farmers of the county. It provides a method of obtaining firsthand information regarding various problems and of seeing the best in Ontario Agriculture.—D.

### Vacant Land in Alberta

EDITOR, Farm and Dairy—One of the most tragic things in connection with the settlement of this country is the manner in which feed growing on lands held by companies for speculative purposes is allowed to go to waste. Millions of dollars worth of the finest pastures and grasses are lost annually in this way. Some farmers are taking advantage of the situation by grazing their cattle and horses on the vacant lands, keeping their own land entirely unimproved. A great deal more work of this kind could be done. It allows the man with only a quarter section of his own to run considerable stock. These are allowed to run out all winter, though some put up a little feed which is fed to the cattle and horses in sheltered places.

There are more Americans coming to this district during the last year or two than ever before, but there is also room for a great many more both from the United States and from Eastern Canada.—"One Who Knows," Southern Alberta.

### Hog Pastures

PIGS make the cheapest gains on pasture. Brood sows running on good pasture and nursing litters will do as well when receiving one to one and a half pounds of grain per each 100 pounds live weight of sow, as sows in dry lot receiving 3½ pounds grain per day per each 100 pounds live weight. The pasture just about cuts the feed cost in two. The pasture alone does not furnish enough feed for either the brood sow with litter or for the weaned pigs. They should be fed some grain, so as to make a rapid growth. In this way the spring pigs are ready for market before the weather sets in.

Alfalfa, clover, and other winter crops make the earliest gains. When these have been provided early spring seedings of such grains as oats and barley or rape is the next best thing.

## WIN AGAINST THE HESSIAN FLY

**TO Escape the Main Attack of the Fly**  
—sow your wheat late. The early brood is most destructive to young wheat and provides for future broods. Your own Experiment Station will tell you this.

**THE Best Wheat Yields** come from plants that enter the winter strong and vigorous. Your own experience will tell you this.

**TO Win Against the Fly**, seed late, feed the crop with available fertilizers which will hasten growth to overcome the late start, and secure vigor with consequent resistance to later broods. Use 200 to 400 pounds per acre containing at least 2 per cent. of ammonia. Acid phosphate alone does not give the necessary quick growth and resistance to the fly.

In Farmers' Bulletin No. 640, U. S. Department of Agriculture, fertilizers are recommended to give vigor to late sown crops and resistance to the Hessian Fly. Write for our map showing best dates for sowing wheat in your locality; also our Bulletin, "WHEAT PRODUCTION," both mailed free.

**Soil Improvement Committee**  
of the  
**National Fertilizer Association**  
CHICAGO Dept. 147 BALTIMORE

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## Hints for August

THE old rooster can crow well, but better sell him or get him away from the hens some other way. He pesters them so they do not do their best.

If there are chicks hatched this month they will make better roasters than if kept for layers.

Shade, green stuff, plenty of water, are essential in August.

Don't be too flattered if the growing chicks run after you whenever you appear. The truth of the matter is that they are hungry. Keep growing feed before them all of the time.

Good feed, cleanliness, good tools and proper houses are four primary essentials for poultry keeping.

One bad egg will put a question mark on the whole dozen and may lose a good customer.

## The Model Poultry House

Frank Marcellus, O.A.C., Guelph, Ont.

DO not recommend any one breed of fowl above all others. Similarly I do not believe there is any one type of house that can be recommended above all others. There are certain principles, however, that apply to all houses and which we must observe if we would have a good house.

First of all, a house must be perfectly dry. A hen will not lay well in a damp house.

In the second place, the house must

be well ventilated. It is more difficult to ventilate a poultry house properly than any other class of house on the farm, as there is an excessive amount of moisture in the breath of a hen.

In the third place, in our efforts to ventilate properly, we must avoid draughts, as draughts are the prolific source of roup and cold.

You can build open front and cupola houses, or a combination of curtains and glass, but if any of these conditions are lacking, you will not have a good house.



## New Prices, August 1st, 1916

The following prices for Ford cars will be effective on and after August 1st, 1916

Chassis . . . . .	\$450.00
Runabout . . . . .	475.00
Touring Car . . . . .	495.00
Coupelet . . . . .	695.00
Town Car . . . . .	780.00
Sedan . . . . .	890.00

f.o.b. Ford, Ontario

These prices are positively guaranteed against any reduction before August 1st, 1917, but there is no guarantee against an advance in price at any time.

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

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**Cooperative Methods not a Cure-all**

(Continued from page 3.)

the mistake of thinking that the mere passing of laws or imposition of fines or attempts at unity of effort will be sufficient to overcome it. It may seem to disappear for a while, but sooner or later is sure to break out in a fresh spot. For the same reason, also, we should discourage rather than encourage the modern tendency to have ministers of the gospel devote more attention to learning methods of farming and attending short courses in agriculture in order that they may help the members of their congregations in a direct temporal way, instead of giving their full attention to the more important spiritual matters. Once ministers have turned aside from the main purpose of their calling and commence to fritter away their time on minor issues, that grows themselves are better able to cope with disaster rather than needs will be the result. Let us not, also, base our appeals for the adoption of cooperative methods so much on selfish arguments as by exalting the usefulness of the spirit which would lead us to prefer to suffer loss rather than to defraud his neighbor. A cooperative organization that is held together for purely selfish purposes has the seeds of decay and disintegration within itself.

**One Step at a Time.**

Let us not, also, make the mistake of expecting too much from the adoption of cooperative methods. These are important, and are always the first and absolutely essential step forward toward better conditions. They are only, however, a means toward an end. Even were all our fruit growers to fertilize and cultivate their land, prune, spray and thin their fruit and cooperate in its sale, other and still larger problems would remain to be solved. We would still have to deal with the possibility of over production, the increasing cost of land and all kinds of supplies, the growing poverty of the masses of the people in countries with the consequent reduction in their purchasing power, as well as competition with other classes of products. It is true we cannot deal with all these questions at once. One step at a time is the safe and ordained method for all of us. Let us once recognize, however, the necessity for taking further steps, and we will not make the mistake of being too optimistic concerning the benefits likely to attend the taking of any one or even several steps. Some of these other issues we trust will be discussed in future numbers of Farm and Dairy. The broader the viewpoint we have when dealing with these problems the safer and more permanent will be the progress made when dealing with them.

**HORTICULTURE**

**August Work in the Garden**

It is not so generally known as it should be that there are several kinds of vegetables that can be planted now and that will ensure a crop of fresh, crisp garden stuff later in the season. Beans can be sown up to the middle of the month; with good prospects of getting a few bushes of pods long after such a thing is thought of by the average housekeeper.

Peas are a distinctly cool weather plant. During the summer the vines are often subject to mildew and do not do well if sown late in June or during July. They will often do well, however, if sown during the late summer for use in autumn. Now would be a good time to try sowing a few

Turnips for late use may be sown

this month by those who prefer the tender young roots to the more mature ones. Most of the growth of turnips sown early in the season is made in autumn and those sown now will do well if properly attended to. One of the flat, early, white varieties is to be preferred for late sowing.

Lettuce crops will be in fine shape for transplanting to hot bed, or cold frame for use at Thanksgiving time. Radishes for winter use should also be sown now.

The most important work in the garden for this month is to prevent weeds from going to seed. The seeds of many of the worst weeds will soon begin to fall and unless they are disposed of at once they will ensure a big weed crop next year with its attendant hard work. Besides the weeds have now attained their maximum growth and leafage and will use up much water that is now badly needed by the enlarging vegetables.

The late crops are now maturing. Early sown and well cared for tomatoes will soon be ready for use. Green corn on the cob should be ready for the table before the end of the month although it is later than usual this year. Squashes are now maturing and also the better kinds of egg plant. Lima beans should be ready later in the month.

**A Cheap Substitute for Paris Green.**

THIS year Paris Green is selling at three or four times its ordinary price, but there are other insect poisons that are quite as effective and much cheaper that can be substituted for it. Probably the most satisfactory of these is calcium arsenate which is made as follows:

In one and a half gallons of hot water dissolve 10 lbs. of powdered sodium arsenate. In another half-gallon of water slake six lbs. of fresh lime. When the slaking is well under way pour in the dissolved sodium arsenate and stir until the slaking has ceased, adding more water if necessary to keep the lime from burning. Add four pounds of the thick paste that results to forty gallons of water, which is the right strength for spraying. Before adding to the water it may be necessary to strain through a cloth to take out any lumps that might clog the nozzle.

Calcium arsenate, like lead arsenate, will not burn the foliage and is considerably cheaper than this poison which has been favored so much of late years as a substitute for Paris Green. Sodium arsenate, the poisonous principle, is about one-half the price of lead arsenate. Made as directed the cost for one barrel, or enough to do two-thirds of an acre of potatoes, is about twenty-five cents. When applying it should be constantly agitated. As a remedy for potato bugs it has been used with unqualified success.

**Little Potato Disease**

THE little potato disease causes little potatoes the size of a pea or a little larger to form on the potato stems, and no potatoes form on the roots. The reason is that this disease closes up the pores in the stem so the starch made in the leaves can not go back to the roots to form potatoes.

Potatoes affected with this disease have small spots on the surface made up of germ masses, that look like a little soil stuck on the surface. The difference comes out when one tries to remove the spots. They do not come off while soil will. This disease is also called russet scab and Rhizoctonia. It is best not to save affected potatoes for seed.

**Increased Production!**

The Government call to every loyal Canadian engaged in Agriculture to try "Increased Production" an important factor in the present titanic struggle. With the call to arms never was labor so scarce. Labor-saving devices have saved the day in many cases. Take Dairying: The Sharples Milker does the work of milking in one-third the time at less cost. Any man that owns 15 cows or more should get one. The fact that one man can milk 30 cows an hour is worth thinking over. But the one thing that places the



**SHARPLES MILKER**

head and shoulders above any other is the patented "Upward Squeeze," which eliminates any possibility of inflamed teats and soothes the cow during milking. The Sharples Milker is a vital factor in the production of Clean Milk. The milk flows from teats to sealed silver buckets through rubber tubes. No suds, dust, no stable air, no hand can touch it. Clean milk means more dairy dollars. Increased milk production follows its use in almost every case. Over 300,000 cows milked twice daily by the Sharples is abundant proof of satisfactory service. Our free booklet, "Dairying for Dollars Without Dredgery," contains valuable dairy hints.

**"Does Its Bit" In Cream Saving**

—no matter how fast or how slow you turn the crank—gets all the cream at any speed. You know it is not humanly possible to operate a separator at the same speed every time. Then get a



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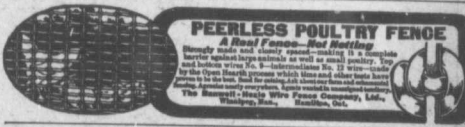
It insures your dairy profits and increases production. Perfectly even cream every time, too—that means top prices. Easy to clean—no discs. Easy to turn—low speed. And freedom to turn at any convenient speed. Low supply tank means easy filling. Write for free book, "Velvet" for Dairymen. Address Department 77.

We make a splendid line of Double-Ignition Gasoline Engines, 2½ to 9 horse power. Fully guaranteed.

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

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We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser, in any way, attempt to defraud us, we will make the amount of any loss, provided such transaction occurs within one month from date of its occurrence, and that it is reported to us within a week of this issue, and that we find the facts as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

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

## The Rural Publishing Company, Ltd.

PETERBORO, ONT.

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

## The New Agricultural Commissioner

W. J. BLACK, who has been appointed successor to the late Dr. C. C. James as Agricultural Commissioner for Canada, is perhaps better known in Western Canada than in the east, though, like so many men who have won distinction in the west, he was born and raised on an Ontario farm. His rise has been rapid. After graduating from the Ontario Agricultural College he chose farm journalism as a profession, and two years later became editor of the Western Farmers' Advocate. Later he was appointed Deputy Minister of Agriculture for Manitoba, in which capacity he had much to do with the establishment of the agricultural college of the province, of which he became the first president. During his nine years' tenure of this office great advances were made in agricultural education in Manitoba. He remained president of the college until the change of government in Manitoba a year ago, and was shortly afterwards appointed secretary of the Economic and Development Commission, a position he resigns to assume the duties of Agricultural Commissioner. A record of achievement such as this could only be made by a man of much capacity.

To his new office Mr. Black brings much experience in the handling of big things. Under his supervision two agricultural college plants were erected in Manitoba; the first, though planned on a generous scale, soon became too small for the rapidly expanding needs of the province, and a few years ago was turned over to another department of the government. The second, which is located just south of Winnipeg, is one of the largest and most complete college plants on the continent. The experience gained in this connection will be valuable to him in his work as commissioner. He is aggressive, and will discharge his

new duties with the same energy that has characterized his work in previous capacities. His intimate knowledge of agricultural conditions in both eastern and western Canada is a further qualification for the commission. His administration in the important work of handling the Dominion grant to agriculture, about a million dollars of which is being expended annually, will be watched with interest by farmers throughout Canada.

## The Question of Summer Feed

THE return of the annual hot spell has resulted, as usual, in the drying up of pastures to a considerable extent. From many parts of the country come reports that the milk flow is slackening. The full extent of the loss occasioned by this will probably not be realized by many dairy farmers. It is greater than it seems. The expense of keeping the machinery of the dairy industry going now is almost as great as it was when the flow was at its height. The decrease in the size of the milk cheques is almost wholly chargeable against labor income. By supplementing the pasture with a suitable summer feed, thus keeping the milk flow up right through the season, the dairy farmer finds one of his greatest opportunities for materially increasing his net profits for the year.

A well fitted summer silo is the wisest provision that can be made for keeping the cows up to their full production throughout the season. Silage has proved to be the cheapest and most palatable supplementary summer feed that has so far been discovered. There are, however, many dairymen who are not in a position as yet to make this provision against the annual midsummer shortage of feed. It is surprising that more such men do not avail themselves of the advantages of having a green crop to feed at this time. The cost of seed for such a crop is small and the acreage required is not large. A small plot of land set aside near the buildings or along the farm lane so that the feeding can be done without too great an expenditure of time and labor may be made to yield a handsome profit. Our field representative, who has an opportunity of meeting many successful dairymen on their own farms, finds that peas and oats in their favorite mixture for green feed. Many are now realizing excellent returns from their foresight in seeing that, no matter how wet the spring might be, there was a possibility that it might be followed by a dry summer. They are now proving the value of green feed for keeping up the flow of milk when the pastures begin to fail. Our most progressive dairymen are no longer neglecting the question of supplementary summer feed.

## Better Credit Facilities Needed

IN the maritime provinces, in western Canada, and in the United States considerable interest is being taken in the question of agricultural credit, and provision is being made for supplying farmers with cheap money for approved purposes. In Ontario, with the exception of the granting of government loans to settlers in the newer districts, but little attention is being paid to this important matter. It may be that there is less need for better credit facilities in this province than elsewhere, but even here conditions are not so good but that they might be improved. An investigation carried on privately two years ago revealed the fact that there are parts of the province in which the rate of interest on both short and long term loans is as high as ten per cent. The credit used by farmers throughout the province costs them on an average about seven per cent. Less important industries than agriculture, with no better security to offer, have had little trouble, in normal times, in securing money at

five per cent, or even less. It is evident, therefore, that in Ontario the farmer is being discriminated against in the matter of securing credit.

The agricultural industry of the province is able to finance itself. It is estimated that the farmers of the province have \$100,000,000 on deposit in the banks at three per cent. That means that there is a discrepancy of four per cent. between the interest received by farmers who have surplus money to invest and the interest paid by their neighbors on their borrowings. It costs one-third more to carry the money over a line fence than the investor receives for the use of it for one year. The annual toll paid by the farmers to financial interests on this account alone totals to a large amount each year. To provide against such conditions financial machinery is being established in other parts of Canada and in the United States by which the surplus money of agriculture will be made available to the farmers without passing first into the control of other interests. There is an opportunity in Ontario for the establishment of similar machinery.

## Democracy in the Pantry

THE cooperative movement is a huge experiment in applying the principle of democratic control to the pantry and cupboard. It is a matter of collective housekeeping by about one-fifth of the population of this island, controlling something like one-eighth of the whole national expenditure of the people. It has made such progress that its sober-minded leaders are now saying that the time has come "when the cooperators of Great Britain and Ireland may set themselves definitely and determinedly to the establishment of the Cooperative Commonwealth, that goal at which their predecessors, great in hope though small in resources, have aimed with such persistent endeavor." Cooperators, when they talk about the Cooperative Commonwealth (which is incidentally also the Christian Commonwealth), are speaking of their experience in the organization and management of every kind of business, from agriculture and manufacture, transport and retail selling, to banking and the control of capital. They own fruit trees and pickle factories, creameries and biscuit works, blacking factories and tinplate works, flour mills and cornet factories, printing establishments and crockery manufactories, ships and shops, newspapers, tea plantations, banks, insurance societies, . . . The one thing they do not manufacture or sell is alcoholic liquor.—Christian Commonwealth.

Cats are great bird hunters. Some get one or more daily, and especially during the hatching season. The cats crawl around at night and do most of the damage which no one can see them at work. In a survey of the birds killed by cats, robins head the list. The following were also killed in large numbers: Song Wren, Ruffed Grouse, English sparrow, Bob sparrow, Catbird, Chipping sparrow and Blue bird. In all birds of 107 species were found killed by cats. Stray cats are especially bad. Keeping the house cat in at night and feeding it will reduce its bird killing activity.

True cooperation is not a get-rich-quick scheme. It is plain common sense and means doing business in the simplest, safest and most economical way. Its success is due to the practical application of modern business principles that will insure the success of any undertaking—whether it be a billion dollar trust or a cooperative grocery store.—The Cooperator.

Many times, in fact almost invariably, the mental attitude we take toward anything of an un-friendlily or seemingly unfriendly nature that enters our lives determines its actual effect upon us.

PUBLIC  
By H. Brown  
The Ruralist

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PUBLISHER'S DESK

By H. Bronson Cowan, Managing Editor and Editor-in-Chief The Rural Publishing Co., Ltd.

THE August 14th issue of Farm and Dairy will be a Western Canada Edition, filled with the spirit and enthusiasm of the great west. This is to be an extra special edition. For eight years now we have given our readers eight special editions of Farm and Dairy each year. These have been so much appreciated by readers and subscribers alike that this year we have decided to include an extra one, which is to be this Western Canada Special. In many ways it will be the most interesting number of Farm and Dairy that we have ever published.

There is a story behind this issue. Last November it was the privilege of several of us to attend, as representatives of The United Farmers of Ontario, a meeting of the Canadian Council of Agriculture, as well as the annual meeting of the Grain Growers' Grain Company, held in Winnipeg. It was a great occasion. It brought us into close touch with the leaders in the great farmers' movements and business enterprises of western Canada that are transforming the west. It was borne home to us that most of us in the east have very little conception of the big things that are being done in the west, of the failures and achievements that are being recorded, or of the plans and aspirations of the people of the prairies, foothills and Rockies. After our return east the situation was talked over among members of the staff of Farm and Dairy. Growing out of these conferences came the decision to attempt to publish a Western Canada Edition of Farm and Dairy that would bring home to us all a better realization of the magnitude of our country and our heritage as Canadians. The expense, we knew, would be heavy; the response that would be made to our editorials, we were not certain. It has, however, proved most gratifying, and thus we have reason to believe this first Western Canada Edition of Farm and Dairy is going to prove a great and distinct success.

Of course, it was necessary that some of the members of our staff should visit the west and obtain first-hand information on the matters in which you probably will be most interested. Thus it was arranged that Mr. J. E. Smith, the advertising manager of Farm and Dairy, and myself should make the trip. Mr. Smith, therefore, left during the latter part of June and travelled through by way of Grand Trunk Pacific to northern British Columbia, and to Prince Rupert, its terminal on the Pacific Coast. To-day (July 15) he was due in Edmonton, Alberta, on his return trip east. These notes, by myself, are being written in case of the comfortable Pullman care of a Canadian Northern train as it dashes along the banks of the wondrously beautiful Fraser River in the midst of the Rocky Mountains of British Columbia. The scenery is grand beyond description. For behind the train has been twisting and turning around the bends and curves of the tremendously steep banks of the river, which rushes and ripples below us. Beside us, and across the narrow gorge, the mountains tower up and up, and occasionally lose their snow-capped peaks in the clouds in a way that must be seen to be fully appreciated. Every hour or so we cross and recross the river on bridges that the waters below seem determined to destroy as they dash themselves against their abutments, while at these overhead

great masses of rock project as though to warn us what the result would be were they ever to fall upon us. Just a few moments ago we passed an Indian burying ground, while at intervals may be noticed Little platforms built out from the banks into the stream below, where isolated Indians that still is found in uncertain quantities. The peering of these notes has been interrupted time and again by an ever varied another of beauty and grandeur has unfolded itself in the glorious panorama, and thus has impelled me to drop everything and rush from side to side of the car—as everybody else is in order that none of the wonderful sights may be lost. Last night we came through the Yellowstone Pass, and all on board who could, remained out on the back of the observation car still long after nine o'clock—the twilight was wonderful here—in order to see Mount Edith Cavell, 11,000 feet high, rear her snowy peak up into the sky, and later to marvel at the awe-inspiring sight of Mount Robson, 13,987 feet, the highest peak in the Canadian Rockies, as it towered above the adjoining mountains and seemed to grow in grandeur as the miles grew between us, thus affording a better perspective from which to appreciate his wonderful proportions. But the space of my notes is rapidly crowded with any more of this hard-to-be-suppressed enthusiasm in this issue. Across the Pacific Railway and across for several hundred miles, parallel those of the Canadian Northern.

Once more as regards our special issue. It is to be something of an interesting article and illustrations. The front cover will show a scene typical of the great west. The Canadian Northern Railway has ordered two pages specially good paper on which to show scenes along their lines through the prairies and in the Rockies. In the introductory article an effort will be made by myself to interpret for our Falls something of the great, restless, resolute spirit of the west. The ministers of agriculture of the prairie provinces are to tell you something of the opportunities the west will have to offer after the war. Dairy Commissioner J. A. Ruddle, Prof. J. W. Mitchell, of Manitoba, and Dairy Commissioners W. A. Wilson, of Saskatchewan, and C. Marker, of Alberta, are to describe ways in which the west is leading the east in dairying. Mr. J. H. Grisdale, Director of Dominion Experimental Farms, will outline the progress that is taking place in large portions of the west from grain to mixed farming. Dean Rutherford, of the Saskatchewan Agricultural Experiment Station, has a story to tell of what life is like for the farmer of the west. The province of Saskatchewan has these farmers in five years have built up a country which this year will do over \$49,000,000 of business will be given by the managing director of the company, Mr. C. A. Dunsmuir, of Regina. There will also be given further particulars about the great Grain Growers' Grain Company, of Winnipeg. Our Mr. Smith is telling you something of the dairy possibilities of northern British Columbia. All over the west may be found some excellent herds of Ayrshires, Friesians and Jersey cattle. Illustrated descriptions of some of the best of these herds are to be published. Again lack of space does not permit of a further description of the good things that appear in this special issue. Appear in the date when it is to appear. Watch for it. It will speak for itself.

The man who buys a scrub bull because it is cheap is a poor calculator. Really the scrub will be the most expensive animal around the farm.



It's the Little Things that Count

ATTENTION makes the mighty oak with its numerous uses for man. Noble buildings result from placing small stones or bricks one on top of another. It's the little things that count in life. It's attention to details that means success.

CREONOID—Real economy consists of getting a product that is cheap to start with and lasts a long time. Such is Creonoid, the famous live destroyer and cover spray. With this wonderful product you have creonoid live stock. And you know the importance of this. A little on the woodwork of the homestead will drive away ticks. Use it in the piggy and stables. It means healthy live stock; more eggs from your hens; more milk from your cows; more flesh from your porkers. You need Creonoid. It's animal insurance.

EVERLASTIC ROOFING—You don't know the real value of a good ready roofing until you've seen Everlastic. No better "rubber roofing" made at anything like the price. It means insurance against leaks and protection against the weather. Everlastic protects the weather a tough well built surface that weeps wonderfully. And it's so easy to lay without skilled labor. Before you pay more and get less, try Everlastic on your next roofing job. You will find it a great comfort.

AMATITE—Just think of a ready roofing that greatly improves a building's appearance and doesn't need painting. That's Amatite. Then consider that Amatite is not high priced in spite of its quality and fitness. Once you have seen this roofing you will want it for all your steep roofs and sidings. Each roll of Amatite covers 109 square feet allowing a 1 inch lap. Send for sample.

EVERJET—Everjet Elastic Paint is the best concrete paint ever made. It will stand the life of any felt or metal roof. And its glossy, permanent black finish adds beauty. It will keep your roofs water-tight and waterproof. Your farm implements will be kept as bright as when they were painted. You need Everjet to "keep things up".

ELASTICOM—Get a can of Elastigum and watch the amazing amount of rust that can be removed from iron and steel. It's a tough, adhesive, elastic cement. It sticks to joints, bolts, nuts, washers, flanges, rivets, and all other iron and steel. It makes all these things permanent. Adhere to wood or metal and is waterproof. It is cheap and easy to use, being applied with a trowel. Handy in a hundred different places.

CARBONOL—Chemistry cannot make a more widely useful or more effective disinfectant than Carbonol. It has a thousand uses in every home and is invaluable to farmers. When you clean house, a little Carbonol in the water will kill germs and odors. If you wash in the water will kill germs and odors. If you wash in the water will kill germs and odors. If you wash in the water will kill germs and odors.

WOOD PRESERVATIVE—Here's the first chance for you to see the wonderful preservative qualities of Cosmoite without the difficult, expensive, and laborious method of applying it. Grade-One Cosmoite is a solvent-free preservative because it can be applied by spraying, brushing or dipping. It penetrates deeper than any other. It is permanent. It destroys fungi, keeps out moisture and prevents rot. You can make cheap fence posts and woodwork last 20 years. Let us tell you how.

THE PATERSON MANUFACTURING COMPANY, LIMITED TORONTO WINDSOR VANCOUVER THE CARBET-PATERSON MANUFACTURING CO. LIMITED ST. JOHN, N. S. HALIFAX, N. S. STIRLING, N. S.

BOYS—How would you like to work for us during your holidays?

The work is pleasant, keeps you out in the open air and your income is only bounded by your energy. You can make lots of pocket money during the holidays by doing us a few hours of your time each week. Write us to-night for particulars.

CIRCULATION DEPARTMENT FARM & DAIRY PETERBORO, ONT

## OUR FARM HOMES



GENIUS and abilities are given as lamps to the world, not to self.  
—Sir Egerton Brydes.

### God's Country and the Woman

(Continued from last week.)

"A H, Mignonne. No, there is neither man nor beast in the world that would leave her. The dogs are chained out in the deep spruce that they may not tear down her doors in the night to come near her. The whole world loves my Josephine. The Indians make the Big Medicine for her in a hundred tepees when they learn she is ill. They have trimmed five hundred job-stick trees in her memory. Mon Dieu, in the Company's books there are written down more than thirty babies and children grown who bear her name of Josephine! She is different than her mother. Miriam has been always like a flower—a timid wood violet, loving this big world, yet playing no part in it away from my side. Sometimes Josephine frightens me. She will travel a hundred miles by sledge to nurse a sick child, and only last winter she buried herself in a shack filled with smallpox and brought six souls out of it alive! For two weeks she was buried in that hell. That is Mignonne, whom Indian, breed, and white man call L'Ange. Miriam they call La Fleurette. We are two fortunate men, my son!"

A dozen questions burst on Phillip's lips, but he held them back, fearing that some accidental slip of the tongue might betray him. He was convinced that Josephine's father knew absolutely nothing of the trouble that was wrecking the happiness of the Adare House, and he was equally positive that all, even Miriam herself, were fighting to keep the secret from him.

That Josephine's motherhood was not the sole cause of the mysterious and tragic undercurrent that he had been made to feel he was more than suspicious. A few hours would tell him if he was right, for he would ask Josephine to become his wife. And he already knew what John Adare did not know.

Miriam was not sick with a physical illness. The doctors whom Adare had not believed were right. And he wondered, as he sat facing her husband, if Adare's fear for his life that was breaking her down. Were they shielding him from some great and ever-menacing peril—a danger with which, for some inconceivable reason, they dared not acquaint him? In the short time he had known him, a strange feeling for John Adare had found a place in Phillip's heart. It was more than friendship, more than the feeling which his supposed relationship might have roused. This big-hearted, tender, rumbling-voiced giant of a man he had grown to love. And he found himself struggling blindly now to keep from him what the others were trying to conceal, for he knew that John Adare's heart would crumble down like a snowdrift if he knew the truth. He was thinking of the baby, and it seemed as if his thoughts flashed like fire to the other.

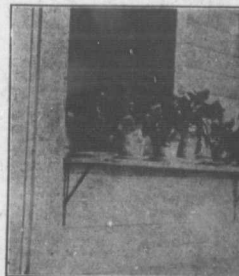
Adare was laughing softly in his beard.

"You should have seen the kid last night, Phillip. When they woke 'im he stared at me for a time as though I was an ogre, then he grinned, kicked me, and grabbed my whiskers! I've just one fault to find. I wish he was a dozen instead of one. The little rascal! I wonder if he is awake?"

He half rose, as if about to investigate, then resealed himself.

"Guess I'd better not take a chance of waking him," he reflected. "If Jean should catch me rousing Josephine or the baby he'd throttle me."

"Jean is—a sort of guardian," ventured Phillip. "More than that. Sometimes I think he is a spirit," said Adare impressively. "I have known him for twenty years. Since the day Josephine was born he has been her watch-dog. He came in the heart of a great storm, years and years ago, nearly dead from



Begonias Blooming in Profusion at the Home of Mrs. Bessar, Durham Co., Ont.

—Photo by an Editor of Farm and Dairy.

cold and-hunger. He never went away and he has talked but little about himself. See—"

Adare went to a shelf and returned with a bundle of manuscript. "Jean gave me the idea for this," he went on. "There are two hundred and eighty pages here. I call it 'The Aristocracy of the North.' It is true—and it is wonderful!"

"You have seen a spring or New Year's gathering of the forest people at a Company's post—the crowd of Indians, half-breeds, and whites who follow the trap-lines? And would you guess that in that average foregather-ing of the wilderness people there is better blood than you could find in a crowded ballroom of New York's millionaires? It is true. I have given fish to hungry half-breeds in whose veins flows the blood of royalty. I have eaten with Indian women whose lineage reaches back to names that were mighty before the first Astors and the first Vanderbilts were born.

The descendant of a king has hunted me caribou meat at two cents a pound. In a smoke-blackened tepee, over beyond the Gray Loon waterway, there heart beats with hair and eyes as black as a raven's wing who could go to Paris to-morrow and say: 'I am the descendant of a queen,' and prove it. And so it is all over the Northland.

"I have hunted down many curious facts, and I have them here in my manuscript. The world cannot sneer at me, for records have been kept almost since the day away back in the seventeenth century when Prince Rupert landed with his first shipload of gentlemanly adventurers. They inter-married with our splendid Cree—their first wanderers from the best families of Europe. They formed the English-Cree half-breed. Prince Rupert himself had five children that can be traced to him. Le Chevalier Gros-seller had nine. And so it went on for a hundred years, the best blood in England giving birth to a new race among the Cree, and the best of France—following new generations among the Chipewyans on their way up from Quebec.

"And for another hundred years and more the English-Cree half-breed and the French-Chipewyan half-breed have been meeting and intermarrying, forming the blood of what is the Northland scarce a man or a woman cannot call back to names that have long become dust in history.

"From the blood of some mighty king of France—of some splendid queen—has come Jean Croiset. I have always felt that, and yet I can trace him no farther than a hundred years back, to the quarter-strain wife of the white factor at Monsoon. Jean has lost interest in himself now—since his wife died three years ago. Has Josephine told you of her?"

"Very little," said Phillip.

other's unbounded faith, his happiness, the idyllic fulness of the world as he found it, were things which with the heaviness and fear at Phillip's feet, had filled him with similar emotions. These things he was not a part. A voice kept whispering to him with maddening insistence that he was a fraud. One by one John Adare's pictures for him hallowed the things he could never share possession of. He desired to see Josephine again was almost forbidden, and he would do so regardless which he knew he must hide from Adare. So when he met Adare's eyes rested upon him in a moment, "I lasted," he said.

"I lasted," said Jean and I were standing beside her grave. It seemed then as though he would have been happy if he had lain near her—under the cross.

"You are wrong," said Adare quickly. "Death is beautiful when there is a perfect love. If my Miriam should die it would mean that she had simply gone from my sight. In return for that loss her hand would reach down to me from Heaven, as Iowaka reaches down to feel, I love life. My heart would break if she should die, but I would be replaced by something more like another soul. For it must be dreadful to be over-watched by an angel." With a queer wince at the window, and with a queer thickening in his throat, Phillip stared at his broad back. He thought he saw a moment's quiver of his shoulders. Then Adare's voice changed.

"Winter brings cold to our doors, the one unpleasant feature of the country," he said, turning to light a second cigar. "Thirty-five miles to the north and west it lies, the one which the Indians call 'Muchenunneti'—the 'Devil's Nest.' It's a Free Trade house. A man down in Montreal by the name of Lang owns a string of them, and his agent lives at the Devil's Nest is a scoundrel of the first water. His name is Thoreau. There are a score of half-breeds and whites in the crowd, and not a one of them with an honest hair in his head. It's the criminal rendezvous I know of in all this North Country. Bad Indians have been known to drop in at the Company's post, go to Thoreau's Whites and half-breeds who have broken the laws are harbored there. A dozen trappers are murdered each winter for their furs, and the assassins are among Thoreau's men. One of these days there is going to be a big clean-up. Meanwhile, they are a pleasant company. There is a deep swamp between our house and Thoreau's, so that during the open water seasons it means we are a hundred miles away from them by canoe. When winter comes we are only thirty miles, as the sledge-dogs run. I don't like it. You can snowshoe the distance in a few hours."

"I know of such a place far to the west," replied Phillip. "Both the Hudson's Bay Company and Revelle Freres have threatened to put it in business, but it still remains. Perhaps that is owned by Lang, too."

He had joined Adare at the window. The next moment both men were staring at the same object in a mutual surprise. Into the white snow space between the house and the forest had walked swiftly the elmet, red-figured figure of Josephine. Her face turned to the forest, her hair falling in a long braid down her back.

The master of Adare chuckled silently. "There goes our little Red Bird!" he then rumbled, "she's out of the dogs!"

Phillip's heart was beating wildly. A better opportunity for seeing Josephine had never offered. He would betray him. He feared that his voice might betray him as he laid a hand on Adare's arm.

(Continued on page 15.)

The Service NOT with pleasers of Christ from the hearts of many ancient Josephines facing the cross? He is as most of us had stood on the earth. His face of the face to grow cloud story. The rest of the eyes of the they rested on were parted a about to fall. There were a signs foras was august judgment to be in con- It looked as if they were trying to vanish lustly as they smiled, turned each in the radi- and made him- case he had just realm of the ble-

As they moved to his guide, "T who has now a about the Judge with Him!" The conductor, "were seated you. They were a scattered far and on earth."

Of course this is there not a few we are ready to day to perform I and give others Are just as good as we are. No one will credit on ourselves we do something make the world a pier, but how can they right from the

Away off in the lands grows a weeping its roots deep in it feels his was shadows, clinging to the trees, plucking light. By and by been passed and the air of the sky was very that become the verd crowning There has been a work done, fill in into the sun-

Can we not take strive more earnest selves in service for the heart. The pa not an easy one. I most fraught with hearts are right, w reward, but we ma some day in the re- those who honor G by Him.—L.B.W.

Points Worth

URING THE COURSE of the Women's cently, Miss Treasch-brace told us of desiring to make meat in their villa- ing Red Cross work in which they had prove conditions in the school, still to be raised in Mrs. McMahon, o

The Upward Look

Service From the Heart

NOT with eye-service as men please; but as the servants of Christ, doing the will of God from the heart.—Eph. 6:6.

How many are praising Him with the ancient legend of the man who was facing the great day of final reckoning? He had lived as well, perhaps, as most of us while here below. At least he stood before the Judge of all the earth. His record was unblemished. The face of the Judge seemed to him to glow clouded as he traces its story. The record was pushed aside. The eyes of the Judge were lifted, till they rested on the man. The lips were parted as if the sentence were about to fall. Suddenly, from every quarter there gathered a host of shining forms which pressed about the august judgment seat. They appeared to be in conference with the Judge. It looked as though with eager faces they were earnestly arguing certain claims. Then they vanished from sight as mysteriously as they came. The Judge smiled, turned toward a messenger clad in the radiant robes of his office and bade him conduct the man whose case he had just considered into the realm of the blessed.

As they moved away the man said to his guide, "Tell me who were those who just now stood in such numbers about the Judge and held converse with Him?" "Those," replied his conductor, "were the friends who saved you. They were the deeds of kindness and of unselfish service you scattered far and wide while you lived on earth."

Of course this is only a legend, but is there not a lesson in it for us? Are we earnestly striving from day to day to perform little acts of kindness and give others our unselfish service? Are we just as ready to do a kindness when no one will know it, as we are when it will reflect some amount of credit on ourselves? Once in a while we do something which helps to make the world a little better and happier, but how seldom we give to others right from the heart.

Away off in the heart of the tropical lands grows a wonderful vine. Planting its roots deep down in the earth, it feels its way up through the shadows, clinging to the branches of the trees, pushing on toward the sunlight. By and by the last shadow has been passed and away up in the pure air of the sky the vine sends out a bud that becomes a lovely blossom, the very crowning beauty of its life. There has been little to show for the work done, till the topmost branches come into the sunshine.

Can we not take fresh courage and strive more earnestly to give ourselves in service for others, right from the heart? The path of service, while not an easy one, is after all the one most fraught with blessings. If our hearts are right, we will not think of reward, but we may rest assured, that some day the reward will come, for those who honor God will be honored by Him.—L.B.W.

Points Worthy of Mention

**D**URING the course of the meeting of the Richmond Hill branch of the Women's Institute held recently, Miss Treach, president of the branch told us that they were endeavoring to make some improvements in their villages, as well as doing Red Cross work. One splendid plan in which they have sought to improve conditions, is by installing a piano in the school, on which the sum still to be raised is only \$99.

Mrs. McMahon, one of the enthus-

astic Red Cross workers, told us that they had organized about one year ago and since that time have raised nearly \$2,000. This amount has been raised mostly by five and ten cent pieces and through different forms of entertainment. They have now adopted the envelope system, asking every family to contribute something. So far it has proven very successful.

While attending this meeting at Richmond Hill, our representative was handed a printed program, outlining the dates of meetings and subjects to be taken up during 1916-17. On the front cover of this neatly gotten out program were the following lines which appealed to us as being worthy of mention:

"Small service is true service while it lasts,  
-And friends however humble, scorn not one.

The daisy by the shadow that it casts  
Protects the lingering dewdrop from the sun."

Add sugar to sweet corn when cooking instead of salt. It will make it tender and sweet.

Keeping Cool in Summer

**H**OW often during the summer some member of the family will come to the table remarking, "Oh, it's too hot to eat." By and by they select the coolest foods they can find and probably finish the meal with a dish of ice cream or iced tea. A writer in one of our United States contemporaries, The Country Gentleman, tells us that a great deal of the summer headaches that we hear so much about are caused by an over-abundance of cold foods and drinks. In fact the article goes on to say that if we wish to keep cool in hot weather, we must eat hot things. We quote as follows:

"Paradoxical as it may seem in summer, when the sunshine lies so still on the face of the earth that even the aspen leaves do not tremble, and the blood in our bodies creeps sluggishly and our heads feel thick, we must eat hot things if we want to have any comfort.

Do not construe this to mean that you must fire up your stove now that the mercury is creeping with the 100-degree mark, and give your family a hot meal from soup to pie. Give them something hot at the beginning of their dinner, a hot soup or some-

thing to start up the languid stomachs by its warmth so that they will quickly assimilate foods. You can then judiciously substitute for the hot meats, hot vegetables and pie the foods that are heating and that will give the whole family more comfort at this hot season. It is true, too, that the hot soup or drink will really cool the body through the profuse perspiration it induces and the consequent evaporation that takes place.

Nature is a faithful teacher to anyone who studies her methods. In nothing is she more faithful than in indicating what men and women shall eat at certain times and seasons. As plain as though she had made audible proclamation from the house tops does she ordain that we shall in summer eat quantities of vegetables, for these she wants us in abundance; but does she want us to consume much pork? It seems not, for pigs at this season are not in prime condition for food, whereas fish, whose oil, we know, is very plentiful. However, while Nature seems to reduce our meat allowance she does not eliminate it.

Let your meat appear most frequently in its lighter forms now. Spiced meats are preeminently hot-weather



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dishes, yet they are seldom found on our tables. An old Virginia recipe for spiced beef makes a dish so unlike that which usually bears this name that it ought to be rechristened. It is as follows:

Take a sirloin or rump piece of beef that has been in pickle about eight days and put it in a kettle of cold water over a slow fire; skin thoroughly, put in a lemon cut in two, with seeds removed, two bay leaves, a dozen small peppers and two tablespoonfuls of tarragon vinegar. Let it boil slowly until tender and then remain overnight in the water in which it was cooked. Then remove from the water, cover with a plate and a heavy weight.

Spiced beef tongue is a good summer dish and a ham tongue will not only vary the monotony of cold, sliced ham but will use up odds and ends. Soften a large tablespoonful of gelatin in enough cold water to cover, pour over it a cupful of boiling stock, stir until dissolved, strain and pour the liquid over two cupfuls of chopped ham, stand aside until it begins to congeal, then fold in a cupful of whipped cream and turn the mixture into a wet mold; serve, when hard, on lettuce. Other

appetizing meats for summer are meat loaves, chicken and lamb chops.

We hear much about meat substitutes for hot weather. If you will add a cupful of chopped nuts to your potato salad or make for it a cheese potato salad or make for it a cheese dressing, or stuff your tomatoes with bread crumbs and grated cheese, you can feel satisfied that your family are getting the elements they must have to be strong.

A substantial and new way to serve stewed tomatoes as a substitute dish is to pour them when at the boiling point into a dish containing uncooked eggs, stir well with a fork, season and serve."

## HOME CLUB

### The Hoosier Poet

MEMBERS of the Home Club would learn with regret and experience a distinct sense of loss in the death of James Whitcomb Riley, the Hoosier poet, of Indianapolis, on July 22. In the early nineties there was no better known or

beloved poet among the people of rural Ontario in the little sweet village, and time has neither diminished his popularity nor tarnished his reputation as a sweet, sympathetic interpreter of rural life. As a dialect poet he was probably without a peer, and his poems reflect the real worth of this child of Nature. He was one of the few who, devoting their lives to poetry, gained a fortune, and is credited with receiving as high as \$25 per word for his verse. He was a voluminous writer, and his collected works run over a dozen volumes.

His poems breathe the atmosphere of the farm, and lure us to the open air, far from the busy haunts of men to a closer kinship with Nature; in pastures green and quiet sleep. Such poems as "The Old Swimm'g Hole," "Little Orphan Annie," "The Raggedy Man" and "An Old Sweetheart of Mine" are universal favorites, and will live and keep his memory green when much of the "sublime" nonsense of the present day has been buried by the sands of time and forgotten in the great Sahara of the past. Below is given an extract from an old favorite by Riley.

When the Frost is on the Punkin,  
"When the Frost is on the Punkin and the fodder's in the shock,  
And you hear the kyouck and gabble of the struttin' turkey cock,  
And the cloc'kin' of the guineys and the cluckin' of the hens,  
And the rooster's halloooyer as he tiptoes on the fence,  
O it's then's the time a feller is a-feelin' at his best,  
With the risin' sun to greet him from a night of peaceful rest,  
As he leaves the house, bareheaded, and goes out to feed the stock,  
When the frost is on the Punkin and the fodder's in the shock.

They's something kindo barfy like about the atmosphere,  
When the heat of summer's over and the cooler's fall is here—  
Of course we miss the flowers, and the blossoms on the trees,  
And the mumble of the hummin' birds and busin's of the bees,  
But the air's so appetizin' and the landscape through the haze,  
Of a crisp and sunny morning of the airy autumn days  
Is a picture that no painter has the colors' to mock—  
When the frost is on the Punkin and the fodder's in the shock.

Then your apples all is withered and the ones a feller keeps  
Is poured around the cellar-floor in red and yellow heaps;  
And your cider-makin's over, and your wimmern-folk is through  
With their mince and apple-butter and their spiced ind sausage, too!

I don't know how to tell it—but of such a thing could be  
As the angels waddin' boardin' and they'd call around on me,  
I'd want to 'commodate 'em—all the whole—indurin' stock—  
When the frost is on the Punkin and the fodder's in the shock."

—AUNT LOTTY

A good way to clean currants before using them for cooking, is to place them in a colander and set them in the sink under the tap, allowing the water to run over them for a few minutes. Rubbing them a little will help also.

It is all well and good to tell the buttermaker that he is doing good work, but patting him on the back and praising him does not buy the baby any shoes, and it would be far better for the buttermaker to give him an increase in salary, if he is earning it.

"If you will let me see your right to tell you see—"

Adare interjects his booming laugh and says that his wife was Miriam living away like wouldn't be was Philip turned every pulse in an excitement that the hot phase would never, or close some for which him to prepare

CHAPTER

In his eagerness Philip had reached the face it occurred without hat or a pair of indoor would suit have of this utter fact he not know to see him through partly opened the door Josephine. He turned, drew on the pins on over the per, caught up back to the door appeared into the He held himself reached the cover sooner was he than he began to hundred yards in took Josephine. He had come to snow, and she turned when he called to "You, Philip!" color deepening, "I thought you 'd the big room."

(Continue)

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"If you will excuse me I will join her," he said. "I know it doesn't seem just right to tear off in this way, but you see—"

Adare interrupted him with one of his booming laughs.

"No, my lad. I understand. If it was Miriam instead of Mignonette running away like that, John Adare wouldn't be waiting this long."

Julius turned and left the room, every pulse in his body throbbing with an excitement roused by the knowledge that the hour had come when Josephine would give herself to him forever, or doom him to that hopeless pass for which Joan Crosslet had told him to prepare himself.

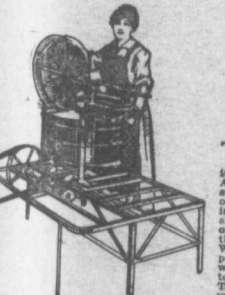
CHAPTER FOURTEEN.

In his eagerness to join Josephine Philip had reached the outer door before it occurred to him that he was without hat or coat and had on only a pair of indoor moccasin slippers. He would still have gone out, regardless of this utter incongruity of dress, had he not known that John Adare would see him through the window. He partly opened the hall door and looked out. Josephine was halfway to the forest. He turned swiftly back to his room, threw on a coat, put his moccasins on over the soft caribou skin slippers, caught up his cap, and hurried back to the door. Josephine had disappeared into the edge of the forest. He held himself to a walk until he reached the cover of the spruce, but no sooner was he beyond Adare's vision than he began to run. Three or four hundred yards in the forest he overtook Josephine.

He had come up silently in the soft snow, and she turned, a little startled, to see a figure called her name.

"You, Philip!" she exclaimed, the color deepening quickly in her cheeks. "I thought you were with father in the big room."

(Continued next week.)



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**1781**—The deep cape collar is a feature of this season. Tall, slender figures fit this style most becomingly, and it is seen on dresses, blouses and coats. Another departure from last summer's belted styles is the belted waist. Round bodice styles in front, are popular, very often tied skirts show the slightly raised waist line. While long sleeves still continue very popular, the majority favor the belted effect. The very warm weather which has brought us the cheer length sleeve. The very sheer dresses are being made up, to some extent at least, with short sleeves and they really add greatly to the comfort of the wearer. Comfort with our costumes these hot days, and there is no reason in the world why we should not be comfortable and at the same time attractively gowned.

**1782**—Child's Suit—This one is comprised of 2 yoke dress, a slip and one-piece dress. The smaller views show the whole set to advantage. For a two-year-old the dress requires 2 1/2 yards, the slip 2 yards, and the drawers 2 of a yard of 1 1/2 material. Cut in four sizes: 1, 2, 4 and 5 years.

**1783-1787**—Lady's Costume—Here is a style, rather uncommon but of an appealing effect. The blouse has the round yoke effect with collar and cuffs of wide lace or lace-trimmed fabric. Either long or short sleeves may be used. The skirt can be cut in either of two styles as shown by the lines of smaller views. The pattern should therefore be a very practical one as it could be used in fashioning more than one skirt. This model calls for two patterns, 10 cents each. The blouse is cut in sizes from 22 to 42 inches bust measure, and the skirt from 22 to 42 inches waist measure.

**1788**—Lady's Apron—This style here-

with is most suitable for either an apron or a comfortable morning dress. It is simply constructed and also easily slipped on and off. Notice the dainty touch given to the sleeve, also the neat and simple look of contrasting material. Three sizes: small, medium and large.

**1789**—Girl's Dress—If a dainty dress is desired for the little miss, one fashioned from small, silk crepe, or some sort of made from the model shown herewith. A sheer white dress trimmed with fine lace after the style of this design, with a silk or satin bodice of contrasting material, is a very dainty indeed. Your sizes: 4, 6, 7 and 10 years.

**1791**—Dress for Misses and Small Women—One of the many pretty fashions spreading if fashioned from this model shown, while simple, is not devoid of plain in appearance. The blouse also has a simple design. Notice the inset portions of same material as the vest. A collar and cuffs of white muslin will add an attractive touch to the costume. Three sizes: 16, 18 and 20 years.

**1792**—Lady's Shirt Waist—The plain shirt waist can always find a place in the wardrobe and many pretty tailored materials such as silk and silk crepe. The style here shown is only one of the many attractive models from which we indeed have many more.

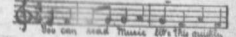
**1793-1795**—A Smart Costume—This outfit should appeal to many as a practical one. It calls for two patterns, 10 cents each. The blouse is cut in sizes from 22 to 42 inches bust measure, and the petticoat in sizes 22 to 34 inches waist measure.

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**Vetch as a Farm Crop**

H. B. Cockburn, Norfolk Co., Ont.

It is generally known that when virgin soils have been cropped for 20 or 30 years, the supply of nitrogen becomes deficient and crop yields decline. It is equally well known that the use of legumes, either for pasture, hay or green manure, usually increases the yield of the succeeding crop, which gives the chief return in cash. For such soil enrichment, vetch has proven itself a satisfactory, especially in Norfolk county, as here there seems to be sufficient lime in the soil to make the vetch thrive and hence secure plenty of nitrogen from the soil. While a ton of vetch contains from eight to 13 lbs. of lime, oats, hay and mixed grass about the same, clover contains 50 lbs. of lime, alfalfa 60 lbs. and vetch 50 lbs. to the ton of barn cured hay. On account of the low cost of this fertilizing material, no farmer should fail to use it in sufficient quantities and encourage to the utmost the growth of vetch and similar crops.

Leguminous crops in the rotation, whether used as green manure or hay, add to the organic matter of the soil, thus furnishing a constituent which is vital to the life of most of the bacteria and other beneficial organisms of the soil. These leguminous crops also impart to the soil the ability to hold moisture and withstand drought. Humus also lessens leeching in sandy soils.

**Why I Grow Vetch.**

It often happens that better crops can be found that these most commonly grown. In my experience, vetch is the best adapted for my land as it has the following good qualities to commend it:

Vetch fits well into various short rotations.

It greatly enriches the soil.

It is relatively inexpensive to grow because the seed can be produced by the grower. Seed can be purchased almost anywhere in our locality.

It will withstand the winter if sown early, about August 25th.

It is a splendid winter cover crop when it gets a good out and out growth.

It is nutritious stock food and can be fed green or made into hay.

It is a good spring pasture for stock. If cut early for hay vetch can be pastured through the summer or a crop of seed taken off.

It will re-seed itself to great advantage in certain systems of cropping, such as in orchards where one always wants a cover crop to plow down.

I have tried cow peas as a cover crop, but find that where my ground is light the land is left exposed to the high winds late in the fall and early in the spring. The reason also is too short for the seed to ripen properly, thus making the seed problem an expensive one.

As to the history of hairy vetch, I know but little. I understand, though, that Thos. Columella wrote in the first century that the best forage plants were Lucerne (alfalfa) and vetch. In some parts, however, vetch is still unknown.

Hairy vetch is sown at the rate of 20 to 25 lbs. to the acre and the common varieties at from 50 to 60 lbs. to the acre. It may be sown either broadcast or in drills. By using a drill less seed is required and a more uniform depth of planting is assured.

A few shrubs at the foundation of the house help to fit the building to the ground and make it less cold and formal. This is especially true of the cement or brick house.

A study of plantings in parks and in neighbors' yards during the next few weeks will help you to make yours better next year.

**The Makers' Corner**

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

**Laundering in Factories**

**C**AN the factory add to the service it is rendering its patrons in making their cheese and butter, by also doing the family washing? From time to time this question is asked, and the possibility of such an extension of the factory's activities is seriously discussed. It is impossible that farm women are, in many cases, overworked. If the factory could provide facilities for doing the family washing for its patrons the women would be saved from the drudgery of the most unattractive of weekly tasks. Some of the arguments used as to the feasibility of such a scheme are that the factory already has established a system by which the laundry could be collected and distributed again; abundance of water, both hot and cold, is available without extending the plant. Power for turning machinery is already installed. The same business management would be able to handle the work. Why, then, should factories not take up such work?

To help solve the problem of the practicability of such a scheme, in Wisconsin, former dean Henry of the Agricultural College at Madison, offered a prize of \$300 for the successful establishing of a cooperative laundry in connection with a cheese or butter factory. Two such laundries were organized and ran last year. They showed conclusively that the scheme is a practicable one. They also showed, however, that there are some unfavorable conditions to be taken into consideration. Chief of these is the one of insufficient help. The maker is a busy man, and in many great many cases is already overworked. It is necessary, therefore, to have a separate man or woman to do the work. All laundry work in cities is done by women. In the villages, where most factories are located, it should not be a hard matter to find a woman who would be able to handle the work and would be glad of the opportunity for remunerative employment. The hardest part of the work is done by machinery. Ironing need not necessarily be done in the small factory. The experience of Wisconsin shows that there is an opportunity for effecting a great saving in the farm woman's work by the establishment of a laundry, privately owned, or on a cooperative basis in connection with a cheese or butter factory.

**Cooperation Means Higher Prices**  
By A. J. McGuire.

**M**OST cooperative creameries in the United States pay their patrons from five to eight cents a pound more for butterfat than is paid by individual cream-buying establishments. There are 860 creameries in the state. Of these, 428 are cooperative, 189 individual, and 243 central.

A canvass made of the representative creameries of Minnesota for last March showed that first class cooperative creameries paid from 46 to 48 cents a pound for butterfat, while a few cooperative creameries that are poorly supported paid as low as 30 cents a pound. In every case of the low price, there was a small amount of business, the cream being sold only about 100 pounds of butter a day. The creameries that paid 48 cents made about seven times as much. Many cooperative creameries making

from 200 to 300 pounds of butter a day paid from 37 to 39 cents a pound for butterfat. Farmers who obtained cream got on an average about 35 cents a pound.

Many cooperative creameries that are struggling along with only half a business could do well if they got all the cream produced in the community. It must be remembered that a cooperative creamery that pays the top price must have at least a certain amount of business. The creameries that paid 48 cents a pound for butterfat were buying large amounts every day. One hundred farmers in any community with five to ten cows each can have such a creamery in their community if they will work together.

**Ice Cream Making**

**T**HE commercial manufacture of ice cream has been so standardized in the large factories that the product is quite uniform in all respects throughout the year. For a given standard it is necessary for the manufacturers to know the per cent of fat in the cream used and to modify the cream so that the product complies with the law. By standardizing the cream, the exact percentage degree of richness a uniform fat content is secured which puts a stamp of quality on the ice cream. A simple way to standardize cream may be illustrated by an example:

An ice cream maker has 400 pounds of 30 per cent cream which he wishes to reduce to a 20 per cent cream by adding skim milk. A simple solution would be:

400 multiplied by 30 equals 120 pounds fat.

120 divided by 20 equals 600 pounds of 20 per cent cream.

600 minus 400 equals 200 pounds skim milk to add to the 400 pounds of 30 per cent cream.

All possible combinations can be worked out by the square method. The per cent of cream is placed in the centre of the square, the per cent on hand on the upper left hand corner and the per cent fat in the milk on the lower left hand corner. Then by subtracting diagonally across the square, the proportion of cream and milk to use is easily found. A simple problem will illustrate:

Given 360 pounds of 28 per cent cream to reduce to 18 per cent cream by adding skim milk. The 18 is placed in the centre of the square; the 28 at the upper left hand corner, and the 0 skimmed milk at the lower left hand corner. Subtracting diagonally across we get 18 and 10. The 18 represents the amount of 28 per cent cream and the 10 the amount of skim milk to use. There are 360 pounds of 28 per cent cream to reduce. Then 360x18

6480 divided by 18 equals 360 pounds of 28 per cent cream. 360 plus 28 equals 580 pounds of 18 per cent cream. Another illustration of the method a little different is illustrated by this:

An ice cream maker wants to prepare 500 pounds of 18 per cent cream. He has 36 per cent cream and 4 per cent milk. Arranging the figures in the square as above we have 14 pounds of 36 per cent cream to be used with 36 per 18 pounds of 4 per cent milk. Together they make 32 pounds of 18 per cent cream.

Then 500x14=218.7 pounds of 36 per cent cream and 500x36=181.8 pounds of 4 per cent cream.

218.7+181.8=399.9 pounds of 18 per cent cream.

—U. S. Bulletin

**beyond a Leader**

**Yet its price**

Get one of our engines on trial. And keep your own.

**THE PA...**

In this little 10-horsepower engine, you get 12 fuel per hour for this amount of fuel. It is a real gem for the farmer.

1 1/2 H.P. .... \$100.00  
2 H.P. .... \$125.00  
3 H.P. .... \$150.00  
4 H.P. .... \$175.00

The Page Wire Fence Company, Limited.  
1139 King Street West, Toronto.

**WILKINSON**

**Ensilage Straws**

Our "B" machine is the farmer. A man will cut and feed into the highest quality silage. It will cut and feed into the highest quality silage. It will cut and feed into the highest quality silage.

TRADE MARK  
**Wilkinson**  
REGISTERED

**THE BATEMAN**

**Canadian**

Eng 28 - Exhib

"Federation of Ontario sports and entertainers" and power.

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Shows that the world respects the Ontario Medical College. Shows that the world respects the Ontario Medical College. Shows that the world respects the Ontario Medical College.

Full parade of King's horse. Government showing of live agricultural products; section of the Ontario Medical College.

Shows for Alliance manufacturer; great exhibit.

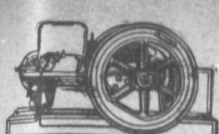
"Little bigger; it is in the

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**beyond Question — the Leader Among Engines**  
Yet its price is only \$42.50

Get one of these "Little wonder" engines on our try-use-a-month plan —  
And keep track of the way it saves you money.

**The PAGE ENGINE**

In this size is almost unbelievably economical — about 20 worth of fuel per hour. Write for particulars of this and the larger Page engines, so much prized by farm owners for the heavier work of the farm.

- 1 1/2 H.P. .... \$45.00
- 2 H.P. .... \$55.00
- 3 H.P. .... \$65.00
- 4 H.P. .... \$74.00

The Page Wire Fence Company, Limited.

1139 King Street West, Toronto.

**TRADE MARK**  
**Wilkinson Climax B**  
REGISTERED  
**Ensilage and Straw Cutter**

Our "B" machine, built especially for the farmer. A combination machine — it will cut and deliver green corn into the highest silage or dry matter or hay into the mow. 12-inch chaff, rolls 2 1/2 inches and set close to halving — solid, cement casing surface. Can change from cutting to mowing. Can be crushed, stamped, or cut into smaller pieces. Easy, silent, reliable, built in leading, everlasting steel, which always lasts. Best buy for you.

Multiple copies — ordered or examined. We also make other types of machines for various uses and also for the new quality of silage of corn.

**THE BATEMAN-WILKINSON CO., LIMITED**

600 Campbell Ave., Toronto, Canada



**Canadian National**

Aug. 28 — Exhibition — Sept. 11

"Federation of the Empire."

Gleaming spectacle symbolizing and epitomizing imperial unity and power. The greatest representation of the British Empire in the Western Hemisphere. Westminster Abbey and the War Office.

W on and under the sea W  
A on land A  
R in the air R

Shows that have thrilled the world...  
Government exhibits; superb showing of live stock and agricultural products; acres of manufacture.  
Shells for Allies in process of manufacture; grand munitions exhibit.  
"Little bigger; little better."

**Notes, Queries and Answers**

**Disagreement on Lease**

CONTRIVANCE has arisen between landlord and tenant. When the tenant went on the farm, March 1st, 1912, the fall harvesting was well advanced. If the tenant leaves the place at the expiration of the lease he will be compelled to do it, although there is no specific clause in the lease calling for such plowing. — B. F. York, Ok., Ont.

A lease of this kind usually contains a provision for plowing the designated number of acres during the fall before the expiration of the term. The lease in question appears not to have this clause. The tenant is, therefore, not legally obliged to do any fall plowing.

**Obstruction in Milk Duct**

HAVE a cow that freshened three weeks ago. She gives a good flow of milk, but I have trouble with one of the teats and when handled, goes back into the udder again. We have been using hot water and massage, but it does not seem to have any effect. — G. C. Shouse Co., Ont.

Careful manipulation will, no doubt, reveal a little lump in the milk duct, down near the point of the teat. A veterinary will be able to operate with an instrument especially designed for the purpose. Unskillful or bungling operations usually cause serious complications. In many cases it is wise to allow the quarter to become inactive and not breed her again.

**Veterinary Notes**

Dwelt troubles in calves are sometimes caused by milk that is excessively rich. Milk that is moderate or low in butter fat is usually better for young calves.

Indigestion in older calves is usually due to unclean milk or feed, unclean vessels, close confinement in dark, unsanitary stalls, and irregular or excessive feeding. In some cases it appears to be due mainly to sheer weakness and inability to digest.

The natural thing and frequently the best thing for softening a horse's hoof is cold water. In mild weather saturate a cloth of suitable size with cold water and tie around the crown of the hoof at night; or pack the sole of the hoof with wet clay.

For calf cholera try the formalin treatment. Add one-half ounce liquid formalin to 15 1/2 ounces of water. Reduce the milk ration at least one-half and add one teaspoonful of the diluted formalin to each pint of milk. Keep the calves in clean, dry, well-lighted stalls, and see that the milk, pails, etc., are clean.

**The Ottawa Fair**

THE greatest effort yet is being made by the directors of the Central Canada Exhibition Association to ensure the success of the annual fair at Ottawa this year, Sept. 9th to 16th. A new building has been secured for sheep and swine, and everything possible will be done to ensure the comfort of stock. Entries close September 4th, and this rule will be strictly enforced. The agricultural, industrial and live stock features are the essentials, \$25,000 being given in prizes for live stock, but special attention has also been given to the grandstand program. Reduced rates have been secured on all railways.

**The Finest Separator**  
in the World  
is Made in Canada  
"MAGNET"

Square  
Gear  
One Piece  
Skimmer  
Double  
Support  
for  
Bow  
Field  
Construction  
Perfect  
Skimming  
Long  
Life

**Make More Money from Cows**  
Get More Cream—Cut the Cost of Running Your Dairy.

A cheap separator steals your dairy profits. A Magnet delivers all the best cream the milk contains. It will stand in fifty years as it does today. Its solid construction, its sturdy material, its special design, its long-life separator that can never wear out. It must be well built to stand the terrific acid at which the best cream is obtained, and adjustment are rarely needed because it runs so easily and so conveniently designed for quick cleaning.

**Long Service: Perfect Service**  
The first Magnet Separator ever built in our factory. It has been run the equal of fifty years today. Yet it shows no wear and does its work as well as it ever ran. Runs as smoothly now as when it was first made. Its Magnet bowl has been constructed on the same lines with new improvements added that give years to the life of this machine.

**MAGNET**  
CREAM SEPARATORS

**STURDY BUILD**  
Look at the strong build of the Magnet Separator. The foot castings, round steel parts and heavy bowl, designed with the widest flange, will handle the Magnet greatly and last for long years. — It's built for hard wear, and more of it.

**LONG-LIFE SQUARE GEARS**  
Brons of high-grade cast-iron—these gears are built to make clean separation. Square wheels on smooth case which work on smooth case to make clean separation. Remember they have the ball and socket design which when put in place has the teeth that will never wear out, and more of it.

**EASY TO RUN**  
There is no need of skilled labor to run the Magnet Separator. It is so simple to operate that any one can run it. It is so simple to clean that it can be cleaned in a few minutes. It is so simple to adjust that it can be adjusted in a few minutes. It is so simple to handle that it can be handled in a few minutes. It is so simple to use that it can be used in a few minutes.

**EASY TO CLEAN**  
Look at the simple design of the Magnet Separator. The bowl is so simple to clean that it can be cleaned in a few minutes. The gears are so simple to clean that they can be cleaned in a few minutes. The whole separator is so simple to clean that it can be cleaned in a few minutes. It is so simple to clean that it can be cleaned in a few minutes.



**WRITE FOR OUR FREE BOOKS and A DEMONSTRATION**

Here's the answer. Still in need of better milk? You will receive a beautiful big book and the Magnet Separator...  
Hamilton, Winnipeg, Montreal, St. John, Calgary, Edmonton, Regina, Vancouver, Seattle.

**PETRIE MFG. Co. Limited**

Please give me your Book and your Demonstration.

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Handsome New Catalogue just off the press. Full description of splendid, complete line of Frost & Wood and Cocksbutt farm implements. Write for a copy to-day.  
THE FROST & WOOD CO., Limited  
Smith's Falls, Ont. (Montreal, St. John)

**Peck, Kerr & McElderry**  
Barristers, Solicitors, etc.  
415 Water St., Peterborough  
E. A. Peck F. D. Kerr V. J. McElderry

**ADVERTISE** In these popular columns, which attract thousands of eyes, you only \$1.50 on lock.



lamba offered slightly with a slight advance in price. Association were about as follows: Choice steers, \$5.35 to \$5.75; culls, \$4.50 to \$5.15; butchers, choice handy, \$4.50 to \$5.00; good, \$4 to \$4.15; medium, \$3.75 to \$4.00; \$3.60 to \$3.75; butchers' cows, choice, \$7 to \$7.25; good, \$6.50 to \$7.00; feeders, \$5.50 to \$6.50; butchers' bulls, \$4.50 to \$5.00; cullers, \$4 to \$4.75; steers, \$4 to \$4.50.

Milk cows received somewhat, especially for the lower grades, choice brought \$5 to \$5.25; good, \$4.50 to \$5.00; cows, \$3.50 to \$3.90; culvers, veal, brought \$1 to \$1.2 for calves; cow to med., \$6 to \$7; grass, \$2.25 to \$2.25.

Lamba sold at \$5 to \$11 a cwt.; spring lambs, \$5 to \$10; light, cwt., \$10 to \$12; good, \$10 to \$12; heavy and fat, \$8 to \$10; culls, \$4 to \$5.50.

Cows, weighed out, \$12 to \$12.25, fed and watered, \$11.75 to \$12; f.o.b. country points, \$11.25 to \$11.50; heavy and light, cwt. 50c less; cows, \$2.50 less.

CHEESE BOARD SALES.

Mont. July 21—200 boxes sold at 15¢.

Vallebrook F.M., Ont. July 21—1,201 boxes of white and 351 colored cheese sold at 17 to 17-1/2¢.

Wheat, W. P. O.—455 wkcs. creamery butter sold at 22 1/2 to 23 1/2¢.

St. Francis, P. Q. July 22—100 pkgs. of butter sold at 29c and 500 boxes cheese at 15¢.

Belleville, Ont. July 22—1,600 boxes of cheese offered; no sales; bidding from 12 to 14¢.

Belleville, Ont. July 22—2,720 boxes of white sold at 18 1/2¢.

Friday, July 21—425 sold at 15 1/2¢.

Billing, July 22—820 boxes cheese sold at 17 1/2¢.

Dundasford—660 boxes white cheese sold at 18 1/2¢.

Medco, July 26—455 boxes cheese sold at 15 1/2¢.

Traschel, P. Q. July 26—50 pkgs. butter sold at 29 1/2¢ and 619 boxes of cheese 15 1/2¢.

Mont. July, Que. July 28—About two hundred boxes of cheese sold to-day at 15¢.

Victoriaville, Que. July 28—2,000 boxes of cheese sold at 15 1/2¢.

Heron, Ont. July 28—1,780 boxes, all colored. All sold at 16¢.

Friday, July 28—(Special)—470 white, 1,500 colored; 1,470 colored sold at 16c, 30 at 15-1/2¢; white refined 15 1/2¢.

Heron, Ont. July 28—440 colored and 59 white, 450 boxes on the board at 15 1/2¢; balance sold on the curb at same price.

Conrwell, July 28—2,244 boxes of colored and 40 of white were offered, all colored at 15 1/2¢, and white at 15-1/2¢.

Perth, Ont. July 28—700 white and 30 colored cheese were sold here to-day, 15 1/2¢ white, 15 1/2¢ for colored.

Lindsay, July 28—1,205 boxes of white and 1,120 boxes of colored. Mostly all sold later at 15 1/2¢ to 15 3/4¢.

had a reputation of last year, and that the late-crown grain is going to be the best. The highest for a summer crop of brooms are \$100. Pork, \$14 per cwt.; wool, 50c; eggs, 30c; cheese is firm. There is slow demand for horses. The fall-crop was poor, but the foals saved are fine. The lamp-crop was satisfactory. The fall-crop was satisfactory. Our farmers have little or no income in the hands of the women-folk who trade in the home. They are not doing well, and we do not to go back to the cheese-factory again. They are not doing well, and we do not to go back to the cheese-factory again. They are not doing well, and we do not to go back to the cheese-factory again.

PRINCE CO., P. E. I.

RECHARMOY, July 21.—We are having beautiful weather and crop look well. They are a good average crop but there is not so much clover as last year. Wheat and oats look well. A few fields were injured by frost, but the hay and the rips are doing well. The calves and turkeys plentiful. Cattle buyers are plentiful and the demand for horses is improving, but there are few lots of horses offered. The factories are doing well and the outlook is promising. Eggs are now worth 25 1/2¢; butter, 30c; black oats, 70c; hay, 11 to 11 1/2 a ton.—D. Mel.

WELLAND CO., ONT.

BRIDGEBURG, July 21.—The weather has been very warm for the last two weeks, something unusual for such a length of time. Hay is in full swing and the crops are cutting a bumper crop. Oats and corn are doing fine, but would grow faster if we had rain. Garden stuff looks well. Gardeners are getting good Strawberries and cherries were a very poor crop, but peaches, pears and apples promise well. The plant crop is promising. Pastures are good and the milk cows are splendidly.—C. J. V. C.

NORFOLK CO., ONT.

PORT BURWELL, July 21.—Cutting grain will commence soon. It is hot, dry weather and everybody is waiting for rain. Everything looks thirsty, especially dry and corn. Pasture is very good and cows are falling off on milk.—E. B. H.

FARM HELP.

We would recommend the farmers of the Province of Ontario requiring farms to the nearest Office in charge of their local institutions, stating wages and length of time services required.—J. Howard Foster, Minister of Lands, Forests and Mines; H. Macdonnell, Director of Colonization, Toronto.

The Prize List of the seventh annual Toronto Fat Stock Show is now out and contains many new classes with attractive prizes. Among these are the Boys' Steer Feeding Competition, open to the boys entered in the Inter-county Baby Beef Competition conducted by the Department of Agriculture. The management are offering a good prize and this class should be a popular one.

What Per Cent Do they Earn

WHAT per cent on their cash value does your dairy herd earn for you every year?

Perhaps you have never looked at your dairy income just in that way. But to be fair to yourself you should. A man in business in the city must reckon his earnings on the capital he has invested and on its cost of operation. If he finds part of his equipment inefficient and fails to turn him out goods at sufficiently low cost he doesn't hesitate very long in discarding it for a better one or in improving it.

Apply the same reasoning to your dairy herd. If you have a herd that turns you out 300 lbs. of 3% milk, for your factory, it is plainly evident that you would get one-third more in cash if they gave you 4% milk. In other words, the "quality" herd would earn you 33% more cash for the same amount of work.

WHERE DOES YOUR HERD STAND?

The whole question of quality in milk is the biggest and most vital one facing dairy farmers to-day. Whether you in the dairy business like it or not, factories, cities, towns, etc., with shortly pay for all milk on its food value basis—by test. Those of us who take advantage of it will reap the harvest.

In improving the quality of your herd you'll find Ayrshires maintain their great reputation for high test—highly productive. See that your first pure bred is an Ayrshire. We shall be pleased to send you the names of your nearest Ayrshire Breeders.



Canadian Ayrshires Breeders Association  
W. F. STEPHEN, Secretary, Huntingdon, Que.

LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, bred by Auchincrais Sea Farm (Imp.) Performance Dams. Write for catalogues.

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

BULL CALF FOR SALE

Dam Sadie Cornucopia Stronco, who has three consecutive 30 lb. records, the latest one 32.56 lbs. from 654.4 milk, 189 lbs. milk one day. Fine pedigree and photo. The whose dam has 22 lb. record. Send for extended pedigree and photo. The price is right.

D. B. FRACY COBURG, ONT.

Pure Bred Holstein Heifers

Your choice of 5 yearlings, 3 of which are bred. If preferred, could spare mature cows or 3-yr. old heifers in calf. Write

JESSE LOOKER, R. R. 3, MITCHELL, ONT.

RIVERSIDE HOLSTEINS For Sale, Choice Young Bulls, sired by King Johanna Pontiac Korndyke, a grandson of Pontiac Korndyke, and a brother of Pontiac Korndyke, 1603 butter in 7 days, 144.23 lbs. 30 days—world's record when made. All females bred to "King". J. W. RICHARDSON, CALEDONIA, ONT.

Lakeview Stock Farm, Bronte, Ont. The home of Dutchland Colantha Ltd. 101 A.R.O. daughters, 4 over 23 lbs. and 7 over 20 lbs. one day. Sila Mon, by Colantha Johanna world record; Korndyke, and Sila Mon's 1st 3-yr. old daughter is the new Canadian Champion No. 3-yr. old, 34.68 lbs. Choice young bulls for sale. MAJOR E. F. OBLER, Prop. T. A. DAWSON, Mgr.

HAY BAY HOLSTEINS

For sale, a two-month-old son of Sigis Mercedes Poach, Canadian Champion senior two-year-old for milk production—82.2 lbs. in one day, 639.3 lbs. in seven days, 2,551 lbs. in 30 days; butter, 2.66 lbs. one day, 25.6 seven days, 94.66 in 30 days. CMH is sired by Sigis Hingerveld Oestle, a half brother to May Robo Syzla, World's Champion—422 lbs. milk in one day. This dam is sister to World's Champion senior four-year-old Princess Segis Walter. Other calves from high-record dams. For prices, breeding, and photo, write or phone.

L. F. BOGART R. R. No. 3, NAPANEE, ONT.

3 HOLSTEIN BULLS READY FOR SERVICE Two years, one day 1,807 lbs. butter and 25,900 lbs. milk in one year. Three pure bred calves four to five months old.

R. M. HOLTSBY, R. R. No. 4, PORT PERRY, ONT.

Postal Card Reports

Correspondence invited.

P. E. I., KING CO.

HEMANSVILLE, P. E. I., July 18.—The wet weather for the two weeks here was just what we need for the late corn grain and for the late pasture, but it was rather an injury to the early and medium early corn grain. It looks now as if we were to

ONE BOY AND TEN HOGS — Made \$350

At our 1915 Show. The same chance for a bright boy at the Seventh Annual Toronto Fat Stock Show.

Union Stock Yards, TORONTO  
December 8th and 9th, 1916

Premium List with many new classes now ready  
C. F. TOPPING, Secretary, Union Stock Yards, Toronto

## PROPER OILING SAVES MONEY

**T**HE right oil in the right place means less money for lubrication and a longer life for your machine.

The Imperial Oil Company makes a large number of farm lubricants---each exactly suited for its special use. Here are some of them:

### STANDARD GAS ENGINE OIL

Recommended by leading builders for all types of internal combustion engines, whether tractor or stationary, gasoline or kerosene. It keeps its body at high temperature, is practically free from carbon, and is absolutely uniform in quality.

### PRAIRIE HARVESTER OIL

An excellent all-round lubricant for exposed bearings of harvesters and other farm machinery. Stays on the bearings; will not gum or corrode.

### CAPITOL CYLINDER OIL

The most effective and economical lubricant for steam engine cylinders; proven superior in practical competition with other cylinder oils.

### ELDORADO CASTOR OIL

A high-grade, thick-bodied oil for lubricating the loose bearings of farm machinery, sawmills and factory shafting.

### THRESHER HARD OIL

Keeps the cool bearing *cool*. Does not depend on heat or friction to cause it to lubricate.

**STEEL BARRELS**—All our oils can be obtained in 28-gallon and 45-gallon steel barrels. These barrels save their cost by eliminating leakage. You use every drop you pay for. Clean and convenient.

If your lubricating problem gives you trouble, let us help you. Tell us the machine, the make, the part—and we will gladly give you the benefit of our experience in selecting the proper lubricant.

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